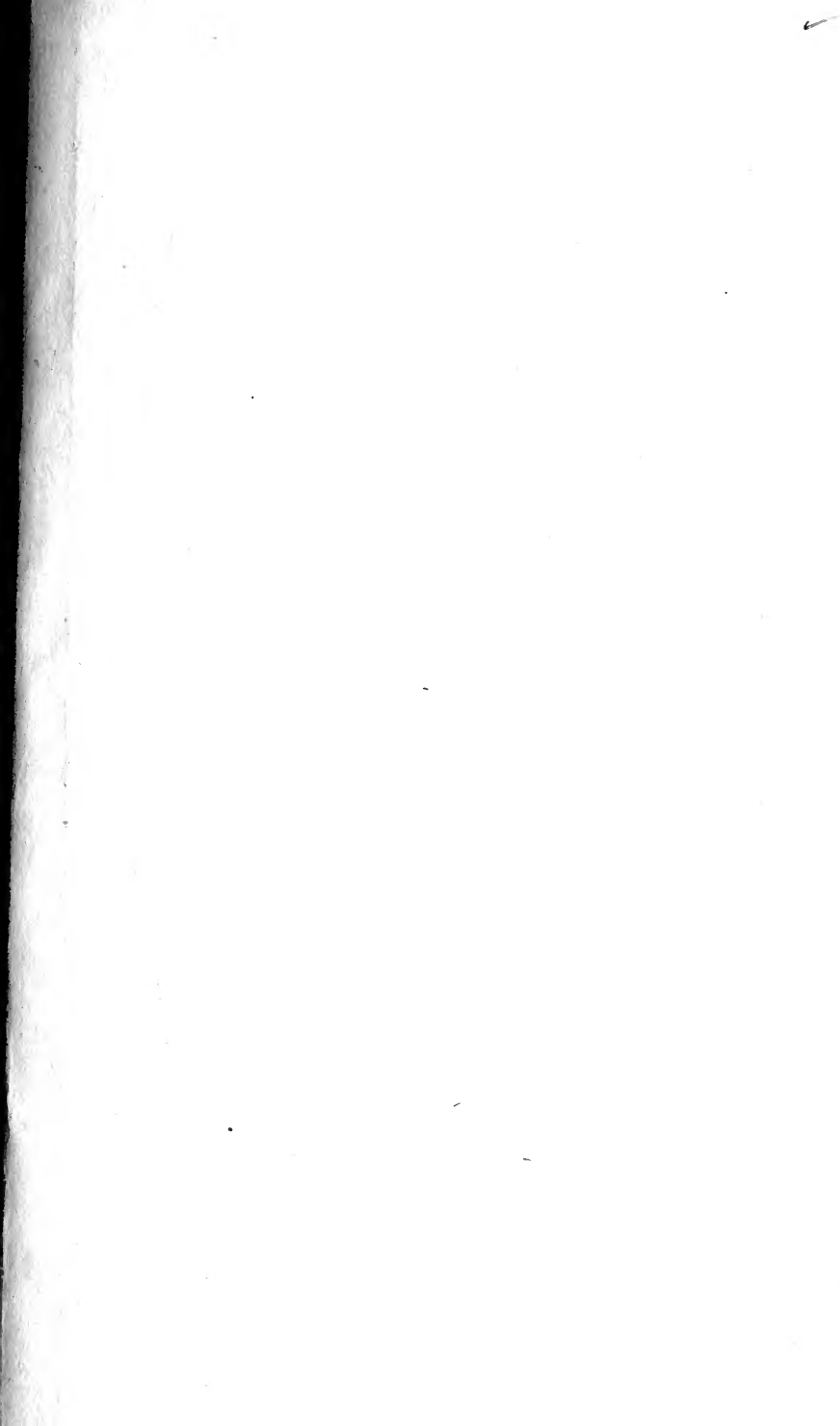
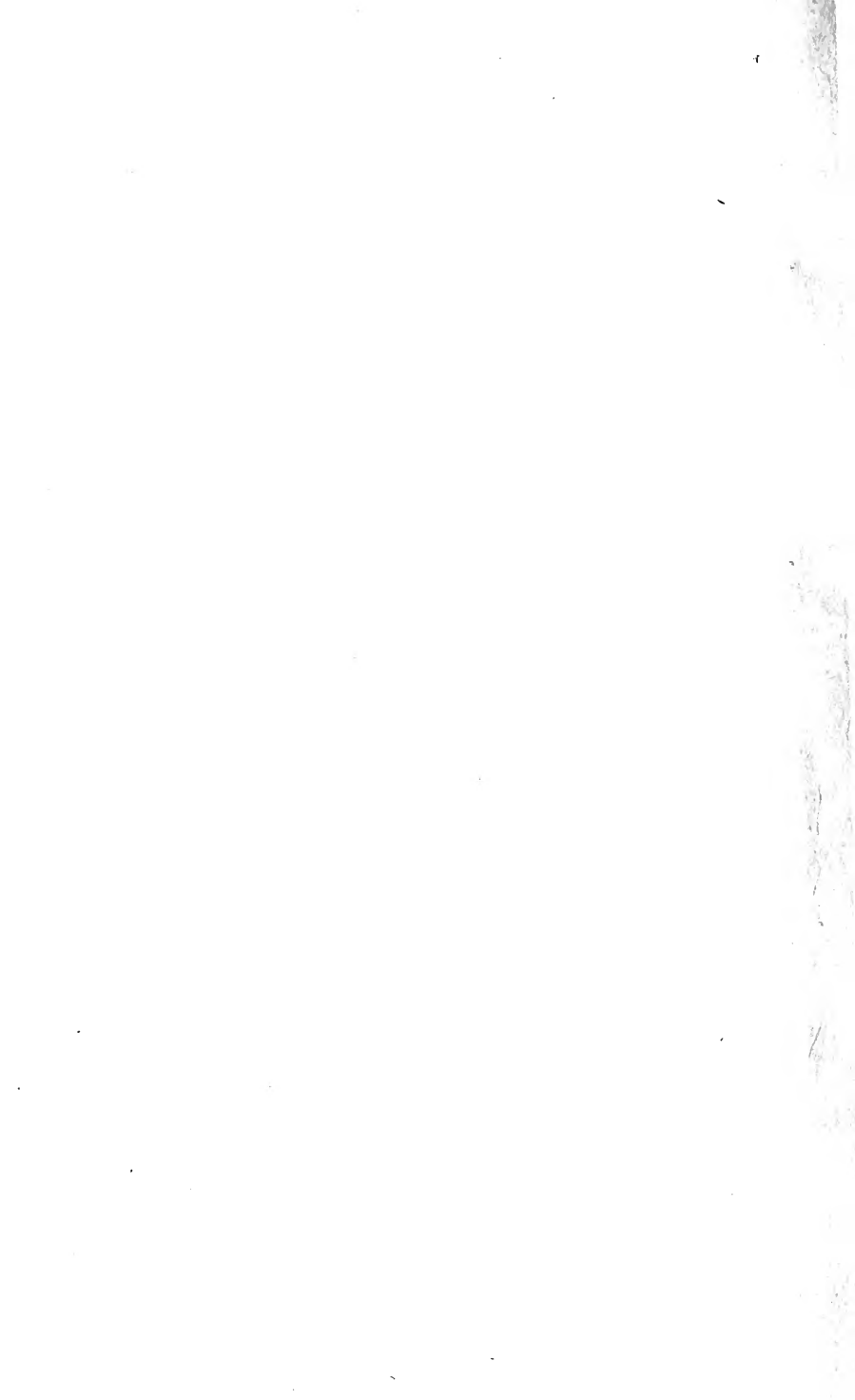


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THE POSITION OF LINGUISTICS IN THE POST-WAR WORLD

By PROFESSOR ALF SOMMERFELT

LINGUISTIC research is usually considered to be of little importance to the problems of the day. The public looks upon linguistics as something rather abstruse out of which it is possible to glean some more or less amusing details on the "origin" of words and names. Sometimes the linguists themselves have tried to justify their existence, but their arguments are often curiously lame and empty. In a recent and important book on general linguistics the main merit of our science is said to be that it has enabled people to learn foreign languages more correctly. If that were true we ought to cease most of our activities keeping up only the study of practical phonetics.

The reason for this regrettable state of affairs is that the knowledge of the real character of language has not yet penetrated to the public. If I remember right, Meillet's famous article on the nature of the change of meaning appeared in *l'Année Sociologique* in 1906. In this article he showed, in his lucid way, how language is social in its character and pointed out some of the consequences this fact has for our methods and theories. Many linguists agree that language is a social phenomenon. From the sociologists Meillet's point of view has received powerful support. It is a principle accepted by very many sociologists that the different parts of a social system must be seen in relation to each other. But still the old biological view lingers on, especially among German linguistic scholars who have been very reluctant to accept any general ideas from abroad. This fact has had very serious consequences for our science. It has been made to play a part in politics, its results having been perverted by the theoreticians of the German National Socialist party.

Many German linguists were strong nationalists long before this war. Scholars of the smaller Teutonic nations were often

made to feel that they ought to follow their lead and write in German. Even such a prominent scholar as Meyer-Lübke declared in 1928 to the Norwegian professor J. Sverdrup at the first congress of linguists at the Hague in 1928, that the interest which the Norwegian linguists took in the methods of Meillet's group would be greatly detrimental to Norwegian scholarship. These views were shared by many German linguists, Jews and "Aryans" alike—I could give many instances. They may seem trivial but they have a deep significance. It is the nationalist views of German linguists, prehistorians, and anthropologists which have made the success of the racial doctrine possible. This is a matter which we cannot ignore and it will be our duty after the war to see that the racial doctrine is not only exposed but also that the true results of linguistic and prehistoric studies are made known to a wider public.

The racial doctrine in its main traits is well known, but it is not generally realized how far the perversion of the results of linguistic and prehistoric studies goes. Let me try to give a synthesis of ideas found in publications both by scholars and by popularizers, stripped of the mystic garment in which especially Nazi writers usually clothe their ideas.

According to the views of the German scholars and poets during the romantic period the German language had a special virtue. Very early the German language came to be the centre of German nationalism. Already Fichte had in his fourth speech to the German people, before the birth of comparative philology in 1816, exalted the German language which had remained "alive" while the other Teutonic languages were in reality "dead". In fact German is not, as is known, the most original of the Teutonic languages (it is reported from Norway that my friend and colleague Professor Marstrander was arrested because he had said in a lecture that German phonetics had retained less of the old system than the other Teutonic languages). Not only is German thought to be the main Teutonic language. Many Germans regard the other Teutonic-speaking peoples, especially

the Scandinavians and the Dutch, as a kind of Germans. Old Norse poetry is published as *altdeutsch* and the Icelandic sagas are regarded as an achievement of the German spirit. In reality the Icelandic family sagas are exclusively Icelandic and not even the old mother country of the Icelanders, Norway, can claim a share in them. And Wagner's famous Teutonic pantheon is neither German nor Teutonic. It is Norse and probably only Icelandic in its most developed form. The Scandinavians have been a distinct unit of tribes and, later, peoples since very far back in prehistoric times. By the emigration of the Angles, Saxons, and Jutes they were isolated from the continental Teutons, Slav immigrants having taken the land which the Anglo-Saxons left empty.

According not only to popular writers but also to many German scholars the Teutonic languages are the most original representatives of Indo-European. But we know now that Teutonic has undergone some sweeping changes which have carried the Teutonic type far away from the original Indo-European. It is significant that Meillet's book *Caractère généraux des langues germaniques* was regarded as the attempt by a French nationalist at belittling the importance of Teutonic. I have personally experienced ill-will because I translated that brilliant little book into Norwegian. Meillet was attacked not only by scholars but also in the German press. He was abused and called *Ostjude*—in reality he was a *Berrichon*, the son of a notaire, and, according to Frenchmen who know that part of France well, of a type quite common among the local farmers there. The idea that Teutonic is of particular importance to Indo-European is seen in the irritation of Germans at the use of Indo-European instead of Indo-Germanic. Gustav Neckel once wrote that the use of Indo-European by Scandinavian scholars testified to the anti-German bias of these scholars. The nationalist bias of the German scholars has been prominent in the discussion of the problem of the original habitat of the Indo-European peoples. German linguists and prehistorians have placed it in Northern Germany along the Baltic Sea and in Southern Scandinavia

or in Central Germany. Certain German prehistorians are as nationalist as the linguists, Kossinna, for instance, illustrated one of his books with a picture of Hindenburg who once said that German archæology was *eine hervorragend nationale Wissenschaft*. The question of the Indo-European cradle-land is of course a vexed question. Very few unbiassed scholars are in favour of placing it in the Baltic lands and the German theories have found hardly any followers among Scandinavian prehistorians. As an instance of how prehistory is falsified to serve political ends I may mention a new prehistorical review of which I received the first fasciculus from Germany some time before the war. I found in this fasciculus illustrations of Indo-European skiers running down the steep mountain sides of Switzerland, like the modern *Schuss*-runners in the Alps, to the amazement of the *Urbevölkerung*. The skiers were tall young men with flaxen hair, men of a type which is fairly common in the great ski-ing contest at Holmenkollen near Oslo, but which to my knowledge is very rare in Germany. The depicted representatives of the *Urbevölkerung* were short and dark, rather like pictures of alpine Crétins. The skis were similar to the newest ski-types which was first made in Norway some thirty years ago. In reality there is not the slightest evidence that the old Indo-Europeans had skis. They may have known the snow-shoe, but the real ski was in antiquity used by the northern Scandinavians, the Lapps, and the Finns but not by the peoples round the Baltic. Ski-ing as a real sport originated in Norway as late as in the 1860's.

Thus the Germans regard themselves as the real Indo-European people, they have the right to claim the great achievements of other Indo-European peoples, especially those of the Greek and Roman civilizations, as their own. Language and people are identified in a way which was general in the early days of our science but which now every linguist who is worthy of that name knows is wrong. The idea of a mystic bond between a language and its people which is so prominent in Wilhelm von Humboldt's philosophy has

had the most serious consequences in central and south-eastern Europe where language is taught to be the all-important criterion of nationality.

Not only prehistory and linguistics but physical anthropology have been perverted to serve German nationalism. The father of racialism was not a German but, curiously enough, a Frenchman, Count de Gobineau. As a French aristocrat he deplored the French revolution, thought that modern France had declined and found the reason for this decline in the disappearance of the Old Nordic and Teutonic aristocracy. It was the fair-haired, blue-eyed Nordic man who had created the great civilizations, but he did not find this man much represented in Germany. In Germany as in France inferior races were swallowing up the Nordics. The pure Nordics were only to be found in Sweden and Norway. De Gobineau's ideas became immensely popular in Germany, he gained many followers there, among them the naturalized Englishman Houston Stewart Chamberlain, and his theories were combined with anti-semitism.

De Gobineau's ideas have all been disproved by modern historians and anthropologists. It is not in any way probable that French aristocracy were particularly Nordic towards the end of the eighteenth century. In fact towards the end of the eighteenth century the overwhelming majority of the French nobility were of bourgeois origin. On the other hand it has not in any way been proved that the qualities we Norwegians may possess are due to our fair hair and blue eyes; the idea seems to me a rather primitive one when I remember the story of Samson. Like all peoples the Scandinavians are of mixed origin, though the Nordic type is more common among them than among the other peoples of Europe. Recent intelligence tests in America have shown rather poor results for the pure Nordic type. I do not think the reason is a racial one but that the persons tested originated from a rural *milieu* where people have less intellectual training.

Thus according to the German theory which is not exclu-

sively a Nazi theory but which had been put to special use by the Nazis, the Germans are the real representatives of the Indo-Europeans and the real Nordics because it is also a dogma that the people who used the old parent speech were racially Nordic. We know, of course, nothing of the racial characteristics of the people who used the parent speech because absolutely nothing is left of them except languages which may have passed on to other peoples just as English has been adopted not only by Celtic peoples but also by negro tribes. The Nordic man is also called Aryan. The use of this term is the outcome of a number of successive errors. As far back as 1888 Max Müller declared that it was as wrong to speak of an Aryan race as it was to talk of a brachycephalic grammar (*Biographies of Words and the Home of the Aryans*, London, 1888).

German nationalism which has culminated in Nazism thus completely perverts the results of modern linguistic, prehistoric, and anthropological studies. It talks of race and means language. In fact, the sole positive criterion used in practice by the Nazis is language. Everybody who speaks German is a German, without regard to his anthropological type, if he is not of Jewish religion or comes from parents or grandparents who belonged to the Jewish faith. Therefore a man may be considered a Jew even if he anthropologically is a Nordic and he is an "Aryan" though anthropologically he may be of one of the types common among the Jews—the Jews are, of course, not a race, in the Eastern Jews an Armenoid element is predominant, in the Western a Mediterranean. The absurdity does not seem to worry most Germans and it is dangerous for German anthropologists to protest against it or even to give a seemingly reasonable explanation of it. Not long before the invasion of Norway I heard an amusing story about a young German anthropologist who tried to prove that after all Göbbels is a Teuton. The anthropologist invented a special species of Teutons which he called *nachgedunkelte Schrumpfergermanen*, shrunken Teutons whose hair darkens as they grow up. This was too much for

Göbbels and the unfortunate anthropologist was liquidated and his book destroyed. Now I find the same story with a slightly different wording in William D. Bayles' book *Cæsars in Goose Step* (London (Jarrolds), 1941, p. 95). The resistance and aloofness of the Nordic Norwegians, Danes, and Dutch to the German conquerors has resulted in a new development of the official racial policy, revealed in a secret circular letter which has fallen into the hands of the Russians (*Soviet War News*, 15th October, 1942). The letter is signed by Martin Bormann and Alfred Rosenberg. It orders the German authorities in the northern regions to be guided from now on by the following principles :

1. The conquest of areas inhabited by peoples of Germanic race, and the contradiction that has arisen within the Germanic race between the conquerors and the conquered, have given rise to new factors in race policy in the north, demanding a reorientation of the programme previously proclaimed by the leaders of the German empire.

2. The conquest brought to light two different elements of the "Nordic race": the German nucleus proper, which has preserved "aboriginal Aryan race material" in its integrity, and the unstable periphery, which has been affected by the disintegrating influence of various "products of racial chaos reigning on the borders of the German world". These include the Finns, Mongols, Slavs, Celts, Gauls, Anglo-Saxons, etc.

3. Germans inhabiting Central Germany are the sole representatives of the "healthy Aryan nucleus". The events of 1940-2 confirmed the right of this superior racial element to a "leading political and educational role in German space", while the sub-Germans (Unter-Germanen) of the periphery who have fallen into the orbit of German conquest, in particular the Norwegians, Swedes, Danes, Dutch, Walloons, and others, have proved unable to resist "the decline of their racial standard and consequently of their state and social system".

4. This difference being established, it is possible to regard the representatives of "the contaminated periphery of the

German racial circle" as a certain variety of subject men (eine Abart des unterworfenen Menschen).

Some of my readers will probably object: what has all this nonsense to do with linguistics and the position of linguistics in the post-war world? Ought not linguists as well as other scholars to ignore them and keep aloof from politics? I am afraid such an attitude might be suicidal. The racial ideas of the Nordic Man have gained very large parts of the German people; they have been one of Hitler's most efficient weapons. They may become a weapon again if they are not counteracted. We are going to disarm Germany and must also include her spiritual weapons in our disarmament scheme. We can do so with a safe conscience; we have the same duty to exterminate this dangerous nonsense as we have to abolish the bloody and savage rites of the so-called "uncivilised" peoples. The racial ideas may become dangerous also outside Germany. They must therefore be countered everywhere. When they did not meet with any success in Norway in spite of the fact that some of them rather flatter the anthropological types of most of the Norwegians the reason is not that the Norwegians knew them to be false. The man in the street hardly knows anything about linguistics, prehistory, and anthropology either in Scandinavia or in western Europe or in America. The racial theory did not succeed because it was contrary to the political and social ideas of my people; then, of course, when the German invasion came the Norwegians did not only lose their liberty, not only were they imprisoned and tortured and shamelessly plundered, but they were also able to observe that the average German is anthropologically and spiritually very different from the real Nordic Man. This war, however, is a revolution and we do not know how many of our political and social ideals will survive this revolution. After the war the racial theories might be turned against the Germans and the present mental characteristics of at least a large part of the German nation might be explained by their language or the shape of many German skulls.

As linguists it is therefore our duty to make our results better known to the general public. We must do so in collaboration with prehistorians and anthropologists. Certain fundamental facts must be taught in the schools. I do not mean that we ought to teach the intricacies of phonetics or comparative philology to other than intending specialists. What I want is an elementary exposition of the results of the social sciences which would contain some fundamental notions on the difference between language and race, on the grouping of European languages and their prehistory and on the relations between language and civilization. I think the primers somewhat similar to the excellent sociological primers which were used in French schools might serve as models; but they would have to enter more into linguistic and anthropological matters than these primers do. I think most pupils would be very interested in these matters. From 1924 to the 8th April, 1940, I gave Norwegian students such a course which is compulsory to all students of the Faculty of Letters. I have often been given evidence of the popularity of this course. In fact the social sciences must have more space in our educational system than they have now. One of the reasons of the present crisis is that the development of the natural and the social sciences has not followed the same pace. Man knows much less about himself than about his surroundings. This fact has created a dangerous disharmony in modern civilization.

We must be prepared to make our claims heard when the peace settlement comes. Now it will be possible to make people understand the necessity of education in linguistic and anthropological facts because everybody understands how easily they can be misused. Linguistic studies have now an opportunity which is not likely to return. We may expect a great development of our science in certain countries after the war. When I except Germany, very important contributions to general linguistics were made during the years which preceded the war; I may recall the ideas of the phonologists, the new interpretation of the grammar of the

Indo-European parent language, the important linguistic atlases in publication and the descriptions of languages of hitherto unknown types. The old homeland of linguistics, Germany, had already before the war lost its lead. For many years the Germans have been speaking of a crisis in linguistics. There has not been any outside Germany. And now the national socialist educational system has done its work. The number of students in the ordinary universities and the technical academies sank from 131,000 in 1931 to 58,000 in 1938 (it was 67,000 in 1910). People from every occupied country are able to tell how incredibly far the barbarization has gone and a re-education of Germany will take a long time. Not much can be expected from eastern and southern Europe which have been so savagely devastated, but if the same destruction is not carried out in the north and the west of the European continent we may hope that those countries and the English speaking world will carry on the work which was being done so well before the outbreak of war.

Social studies will have to be encouraged after the war if man is going to obtain the same control over himself as he has obtained over nature. Linguistics have an important place in these studies. No society can be properly explained without the study of its language. The study of languages is the clue to the study of mentality. The development of logical categories can only be elucidated through the development of linguistic categories.

The linguists must understand that they have a responsibility and must not shrink from that responsibility.

THE REDUCED PREFIXES *ks-* AND *də/d-*, AND METATHESIS IN GREEK

By STUART E. MANN

A. THE PREFIX *ks-*

THERE is a mobile prefix *ks-* in Lithuanian *iš-mirti* "to die out", Albanian *ç-pall*, (Geg) *sh-pall* "to blab out, publish", and Gothic *us-dreiban* "to drive off". In Slav bases with initial gutturals or sibilants this prefix merges with the initial to produce *x-* (*š-* before front vowels).

It appears that *ks-* becomes Greek σ before original *bh-*, *dh-*, *gh-*, and *gʷh-*, and before original *b-*, *d-*, *g-*, and *gʷ-*. Before original *p-*, *t-*, *k-*, *qʷ-*, and *s-*, and the same sounds when derived from aspirates (as in *πενθερός* from *bh-*, *τηθή* from *dh-*), fusion occurs with metathesis. This metathesis principle is still at work in Modern Greek. According to Professor N. B. Jopson *Mod. Greek βγάζω* derives from *ἐκβάζω*; *βγάλλω* from *ἐκβάλλω*; *βγαίνω* from *ἐκβαίνω*, etc.

*IE *ks + t (and τ from dh), also *ks + st become σ (earlier *τσ)*

σάττω "I load", etc. *IE *ks-tʷgʷiō* "to weigh down", radical in *τάσσω* "I order, array". This is apparently a doublet of **tʷgh-* "press, constrain", in Icel. *þungr* "heavy", Lith. *tingùs* "slothful". The word *σαγήνη* "drag-net" may belong here.

σάλασσω "I cram", *IE *ks-tʷkʷiō*, root **telk/tilk* "to press" as in Lith. and Slavonic.

σάος, σῶς "safe", *IE *ks-təwos*, radical in Homeric *ταύς*: Skr. *tanāh* "strong"; Lett. *tuvs* "close", *IE təwos*.

σάφα "clearly", *σαφής* "clear", *IE *ks-dhəbh-* "uncover", or (in view of Lith. *dengti* "to cover", OHG. *tunc*) more probably **ks-dhəgʷh-*. Radical in *θάπτω* "I bury" (lit. "I cover"), *τάφος* "tomb".

σῆμα, Doric: *σᾶμα, απος* "mark", *IE *ks-tām̥* "cut out", root **tem-*, **təm*, **tām* (or *tēm*?) "cut".

συχνός "abundant, frequent, great, long", etc. IE **ks-dhughnos*, N-grade as in Eng. *doughty*, O-grade in Lith. *daug* "many".

σῶμα, *ατος* (Homeric) "corpse" later "body": IE **ks-stōmḡ*, radical in Lith. *stuomuo* "stature".

σοφός "able, clever": IE **ks-dhobhos* "very fit", radical in Lith. *dabinti* "to adorn": Icel. *dafna* "to thrive", Goth. *ga-daban* "to beseem, happen", OSl. *doba* "opportunity".

Σ may derive from **ks-* or from **sə* (Lith. *su-*, OSl. *sъ*) in the following:

σβέννυμι, fut: *σβέσω* "I extinguish": Lith. *iš-gesti*. IE **ks-guesiō*. Cf. Goth. *us-qistjan* "to kill".

σθένος "strength", IE **ks-guhenos*, -*es-*, or **sə-guhenos*, -*es-*, root **guhen-* "drive".

σφοδρός "violent, zealous", IE **ks-bhodros*, radical in Skr. *bhadráḥ* "good, fair", Russ. *bodryj* "agile", Lith. *budrus* (vowel influenced by *budinti* "to wake" and *gudrus* "clever") "smart".

σφάζω "I slay", *σφαγίς* "knife", radical probably in Skr. *bhanj*, *bhag* "to break, destroy", Lith. *bangà* "breaker, wave", etc.

ἄσθμα "asthma", IE **ḡ-ks-dhmā*, -*dhmā* "not-out-breathing", radical in Skr. *dhma*, *dhmā* "to blow".

IE **ks* + *k*, *k̄* (and *κ* from *gh*, *ǵh*), also **ks* + *sk*, *sk̄* become σ
(earlier **κσ*)

This formula is difficult to justify in fact. The prefix *συν-* Old Attic *ξυν* "together" may derive from **ks-kom*. For *o* > *u* in the presence of *ks*, cf. *νύξ* "night", *πυξίς* "box".

IE **ks* + *p* (and *π* from *bh*), also **ks* + *sp* become ψ

ψιάζω "I dance, play", IE **ks-pisədiō*. Radical in Skr. *pīḍ*, Greek *πιέζω*, *πιάζω* "I press".

ψίζω "I feed on pap", IE **ks-piḡō*, radical in Lett. *pītas* "food", OSl. *pītati*, etc.

ψῖλος "bald", IE **ks-pīlos* "hairless". Radical in Gk. *πίλος* "hair", etc.

ψαίω "I mince", *ψαιστόν* "gruel", IE **ks-pəxiō* "I beat out", pp: *ks-pəxistós*, radical in Gk. *παίω*: Lat. *paviō* "I beat", Skr. *pavīh* "tyre of wheel", *pava* "sift, purify", OHG *fowan* (*fawjan*) "thresh (wheat), sift, winnow".

ψεύδω "I cheat", perhaps IE **ks-speudō* "I press out", radical in *σπείδω* "press on, hasten", O-grade in Lith. *sprauda* "press": *σπουδή* "haste".

ψύχω "I blow", *ψυχή* "breath, spirit", IE **ks-pūghō* "I blow out", radical in OHG *fūht* (**pūghtos*) "damp", cf. Eng. fog: Arm. *hoki* "spirit", and *hov*, *hoyṃ* "wind" (**pūghmṃ*).

B. THE PREFIX *d-* FROM EITHER **de-*, *dē-* OR **do-*, *dō-*

The prefix **dō̊*, common to Germanic, Celtic, Baltic, and Slavonic, is universally reduced in Greek, Armenian, and Albanian. Cf. Alb. *bierr* "lose, destroy", IE **bheriō* "I strike", besides *dbierr*, *bdierr*, and *vdierr* (according to dialect) "I destroy", IE **de-* or **do-bheriō*. In Armenian the prefix *d-* occurs in *d-nang* "poor" (lit. "denuded"), *d-hağ* (**de-sātis*) "unpleasant". In the following tentative etymologies, the requirements of sense will indicate **de-* or **do-*.

IE **de/do* + labial or *sp* becomes *πτ*

πτυξ, *πτυχός* "a fold", *πτύσσω* "I fold", IE **do-bhugiō*, radical in English "buy" (orig. "bend").

πίσσω "I grind coarsely, pound, husk", IE **de-pisiō*, radical in Skr. *piś* "to grind", Russian *pšenó* "millet" (**pisimṃom* "ground"), and cf. Gk. *πισάνη* "husked barley" (**de-pisimṃā*).

πτοέω "I scare away", IE **de-bhoiēxiō*: Alb. *dboj*, *bdoj*, *vdoj* "I scare away", radical in Skr. *bhayāh* "fear" and OS. *bojō se* "I fear".

πτυρῶ fut: *πτύρω* "I scare", IE **de-bhūrxiō*, root *bhūr* "rage", Skr. *bhur*, Lat. *furō*, Lettish *buru* "I bewitch", Arm. *purn* (**bhūrmṃo-*) "fiery, violent".

παίω "I cause to stumble", IE *de-pəu̯iō "I strike down", radical in Gk. παίω.

IE de/do + guttural becomes κτ-

κτάομαι "I get", κτήμα "property", etc. IE *de- or *do-ghəu̯ō, radical in Lith. gauti "to get". The word κτήμα "property" corresponds to IE *de-ghāu̯m̥n̥, radical in Icel. gaumr "heed", whence geyma (*ghāu̯m̥iō) "to watch, keep", Lett. gaumēju "I observe".

κτείνω "I kill", κτόνος "murderer", IE *de- (or *do-) -gʷhen̥iō/*de -gʷhónos, radical in Gk. θείνω: φόνος. It is probable that Skr. kṣan "to kill" derives from *k̥s-gʷhen-: Lith. iš-genu.

DE L'EMPLOI DE L'AORISTE EN GREC MODERNE

By ANDRÉ MIRAMBEL

LE verbe grec moderne exprime de façon suffisamment nette l'idée de *temps*, du moins à l'indicatif¹ ; il possède, en effet, pour ce mode, des formes distinctes de *présent*, de *futur* et de *passé* ((γράφω, θὰ γράφω, ἔγραφα) ; la notion temporelle est même assez complète pour qu'il puisse traduire le *futur dans le passé*, puisqu'il a un *conditionnel* (θὰ ἔγραφα). D'autre part, chacune de ces notions temporelles peut, le plus souvent, se rendre au moyen de deux formes, qui reposent sur des «*thèmes*» différents selon *l'aspect* à exprimer : ainsi le futur est double (θὰ γράφω et θὰ γράψω), le passé également (imparfait ἔγραφα, aoriste ἔγραψα) ; on peut même ajouter, pour l'expression temporelle du passé — et indépendamment de sa valeur d'aspect — le système périphrastique du *parfait*,² de formation postérieure en grec, et qui, sans entrer tout à fait dans la structure du verbe néo-hellénique, temporellement se distingue du présent et du futur simples (parfait de l'indicatif ἔχω γράψει, plus-que-parfait εἶχα γράψει, futur antérieur θὰ ἔχω γράψει, conditionnel parfait θὰ εἶχα γράψει).

Nous considérerons ici, abstraction faite des autres formes, l'emploi qui est fait, dans le grec actuel, de l'*aoriste*.

I

Normalement, cette forme se situe, au point de vue du temps, dans le *passé*, s'opposant au présent et au futur : τρέχω «*je cours*» a pour futur θὰ τρέχω (θὰ τρέξω), et l'expression de l'idée de «*courir*» dans le passé se fait par l'imparfait (ἔτρεχα), ou par l'aoriste (ἔτρεξα).

¹ Les modes autres que l'indicatif distinguent des *aspects*, mais n'expriment aucune *notion temporelle* (subjonctif continu : νὰ γράφω, subjonctif momentané : νὰ γράψω ; impératif continu : γράφε ; impératif momentané : γράψε ; le «*temps*» est absent de ces modes).

² Cf. D. HESSELING, *Het Perfectum in het postklassieke grieks*, Amsterdam 1928.

Mais, à la différence de l'imparfait, qui, du point de vue «temporel», est toujours un passé, l'aoriste peut, temporellement, se situer dans le *futur*, et surtout dans le *présent*.

Nous examinerons successivement chacun de ces emplois, et nous essaierons d'en donner les raisons.

A. L'AORISTE AVEC VALEUR DE FUTUR

On peut employer l'aoriste avec valeur d'un *futur à brève échéance*, d'une part, et avec *valeur terminative*, d'autre part. Cet emploi est, toutefois, relativement limité, et c'est avec les verbes *φτάνω* «j'arrive», *χάνω* «je perds», *τελειώνω* «je finis» qu'on le rencontre principalement, ainsi que dans des expressions qui ont pris valeur de formules, ce qui n'empêche pas, par ailleurs, l'emploi de l'aoriste en ce sens avec d'autres verbes.

Voici des exemples empruntés à des textes de langue courante.

1°) Avec *φτάνω* :

ἐλάτε ἀπάνω . . . — καλὰ, ἔφτασα (ΧΕΝΟΠΟΥΛΟΣ, *Μονακριβή*, p. 195) «montez . . . — Bien, j'arrive tout de suite» ;
 τώρα ἔφτασα (ΧΕΝΟΠΟΥΛΟΣ, *Χερουβείμ*, p. 48) «j'arrive à l'instant».¹

2°) Avec *χάνω* :

ἂν σέ καταλάβουνε χάθηκες (Α. ΤΖΑΡΤΖΑΝΟΣ, *Νεοελληνική Σύνταξις*, p. 195) «si on t'y prend tu seras perdu» (l'auteur ajoute : ἐξάπαντος θὰ χαθῆς «à coup sûr tu seras perdu, c'en est fait de toi», en employant un futur).

3°) Avec *τελειώνω* :

τοῦ χρόνου νὰ εἴμαστε καλὰ καὶ τὰ ψέματα τελειώσανε (Ε. ΔΑΣΚΑΛΑΚΗΣ, *Διηγήματα, Τὰ παιγνιδάκια*, pp. 128-9) «si çà marche l'an prochain, finis les mensonges».

¹ Cf. L. ROUSSEL, *Grammaire descriptive du Roméique littéraire*, p. 189 : «L'aoriste exprime avec vivacité une action prochaine ou immanquable . . . *éftasa* «Me voici !» *éftase* «(Le garçon) va venir !» [il s'agit ici des formes, phonétiquement transcrites, *ἔφτασα*, *ἔφτασε*]. Et, p. 191 : «Il n'y a pas de forme spéciale pour indiquer un futur rapproché».

Voir A. MEILLET, *Sur l'aoriste sigmatique (Mélanges F. de Saussure)*, pp. 79-106).

4°) Avec d'autres verbes :

κόβω «je coupe» : σουκοψα ὅπου σὲ βρῶ τὴ μύτη «que je te trouve, je te couperai le nez» (Σατυρ. Ἐφημ., n° 9, 1911, p. 3 ; cet exemple est mentionné par L. ROUSSEL, *Grammaire descriptive du Roméique littéraire*, p. 189) ;

τρώω «je mange» : σ' ἔφαγα (familier) «je t'aurai» (sert aussi à exprimer l'exclamation française «prends garde (à toi), gare à toi !») ;

σκάνω «je crève» : ἔσκασα «sapristi !» est fréquemment usité avec la valeur de θὰ σκάσω qui se rencontre également dans la langue courante (cf. ΧΕΝΟΠΟΥΛΟΣ, *Χερουβείμ*, p. 40, 94, et *Μονάκριβη*, p. 240) ;

πνίγω «j'étouffe» : σκάσε, γιατί σ' ἔπνιξα «finis (arrête), sinon je t'étrangle (je vais t'étouffer)» (ΠΙΚΡΟΣ, *Τουμπεκί*, p. 84).

L'emploi de l'aoriste avec le sens du futur appartient essentiellement à la langue familière.

B. L'AORISTE AVEC VALEUR DE PRÉSENT

Les emplois de l'aoriste se rapportant au *présent* sont beaucoup plus riches. On les rencontre avec des verbes de sens très variés, mais de préférence avec des verbes de mouvement, d'opérations des sens et de l'esprit, avec des expressions interrogatives, et dans un certain nombre de formules.

Voici des exemples.

1°) Verbes exprimant des actions ou des états divers.

a) Idée de mouvement ou de station :

ἄργησα «je suis en retard, je retarde, je tarde (en ce moment)» (de ἀργῶ) ;

ἄρχισα «je commence à l'instant» (de ἀρχίζω) (ἄρχισε νὰ βρέχει «voilà qu'il commence à pleuvoir») ;

ἔγινα (ou γίνηκα) «je deviens» (de γίνουμαι) (ΚΑΡΚΑΒΙΤΣΑΣ, Ὁ Ζητιάνος, p. 13 : πᾶς στὸν κουφὸ καὶ τοῦ λῆς τοῦτο κ' ἐκεῖνο κι ἀμέσως ἡ δουλειά σου γίνηκε «tu vas chez le sourd et tu lui racontes un boniment et, çà y est, ton affaire est faite») ;

ἔπεσα «je tombe» (de πέφτω) (τώρα πὺ ἐπεσαν πολλοὶ

ἄνθρωποι γλήγορα γίνεται ἡ ἐργασία «maintenant que beaucoup s'y mettent, le travail va se faire vite»¹ ;

ἔρριξα «je jette» (de ρίχνω) (τώρα τῶρριξα «maintenant je joue <je jette les cartes>») ;

ἔσωσα «je finis» (de σώνω) (Κ. ΜΑΛΑΜΟΥ, *Γιὰ λίγη ἀγάπη*, p. 150 : ἄμα πείς τὸ Γκλιτσεΐκο ἔσωσε «quand on parle de Glitséiko il n'y a plus rien à dire <c'est tout dire>») ;

ἔφταξα (ou ἔφτασα) «j'arrive» (de φτάνω) (ΤΗ. ΚΑΣΤΑΝΑΚΙΣ, *Οἱ Πρίγκηπες*, p. 46 : κάτσε κ' ἔφταξε «assieds-toi, il arrive») (voir plus haut également) ;

ἦρθα «j'arrive» (de ἔρχομαι) (μόλις ἦρθε «il vient d'arriver», ξεπίτηδες ἦρθα «j'arrive exprès», ἦρθε ώραῖα «ça tombe bien») ;

παραιτήσα «j'abandonne, j'y renonce» (de παραιτῶ) (ΒΑΛΑΟΡΙΤΙΣ, *Μνημόσυνα, Θανάσης Βάγιας*, p. 58 du t. I des *Œuvres Complètes* :

πέφτουν ἐπάνω του οἱ πεθαμένοι.

Μὲ παραιτήσανε. Κανείς δὲ μένει.

«les morts tombent sur lui. Ils m'abandonnent. Aucun ne reste») ; on notera que l'aoriste παραιτήσανε se trouve entre les deux présents πέφτουν et μένει ;

πήγαμε «nous voilà arrivés, nous y voilà» (de πηγαίνω), généralement au pluriel ;

πῆρα «je prends» (de παίρνω) (πῆρε τὸν κατήφορο «il est en ce moment sur une pente») ;

σώθηκα «je suis sauvé» (de σώζω) (ΒΕΝΕΖΙΣ, *Τὸ Νούμερο 31328*, p. 114 : ἂν σὲ χρειάζουνταν, σώθηκες «qu'ils aient besoin de toi, tu es sauvé») ;

τέλειωσα «je termine, je finis» (de τελειώνω) (τώρα τέλειωσα τῇ δουλιά μου «à l'instant je termine mon travail», par opposition à τελειώνω «je suis en train de terminer») ;

τσακίστηκα «je suis brisé» (de τσακίζω) (ΤΕΡΖΑΚΙΣ, *Φθινοπωρινὴ Συμφωνία*, p. 26 : κι ἄμα τοῦ δώσεις μιὰ καὶ τὸ χτυπήσεις, πάφ! . . . ὅλα τσακίστηκαν «et quand tu lui donnes un coup et que tu le frappes, pan ! . . . rien ne va plus») ;

¹ On remarquera, dans l'exemple en question, l'emploi de τώρα «maintenant» à côté de l'aoriste ἔπεσαν. Voir aussi l'exemple suivant.

noter aussi l'expression familière : δὲ τσακίστηκα «je n'y renonce pas, je ne me déclare pas vaincu, je ne recule pas», cf. PSICHARI, Γραμματικὴ, t. III, p. 276) ;

τσάκωσα (de τσακώνω) «j'attrape» (σὲ τσάκωσα «je t'y prends!»).

b) *Idée de fatigue, d'épuisement, de destruction :*

ἀπόκαμα «je suis à bout» (de ἀποκάμνω) (ἀπόκαμε, ou ἀπέκαμε «il est exténué, à bout», et τί ἀπέκαμες ; «ou en es-tu ?») ;

ἀρρώστησα «je suis souffrant» (de ἀρρωστῶ) (σήμερα ἀρρώστησε «aujourd'hui il n'est pas bien») ;

βαρέθηκα «je suis las» (de βαριέμαι) (τὸ βαρέθηκα «j'en ai assez», mais βαριέμαι «je m'ennuie») ;

ζαλίστηκα «j'ai un vertige, la tête me tourne» (de ζαλίζω) ;

κάψωσα «j'étouffe de chaleur» (pas de présent) ;

κόπιασα «j'ai du mal» (de κοπιάζω) (au passif κοπιόστηκα signifie «je suis fatigué») ;

κουράστηκα «je suis fatigué, la fatigue me prend» (de κουράζω) ;

νύσταξα «j'ai envie de dormir» (de νυστάζω) ;

ξεκούφανα «j'assourdis, je fatigue» (de ξεκουφαίνω) (Malamou, *ibid.*, p. 242 : Χρυσώ ! μᾶς ξεκούφανεσ «Chryso ! tu nous assommes») ;

πέθανα «je suis mort, je n'en peux plus» (de πεθαίνω) ;

σκουλίκιασε «(il) est plein de vers, il est pourri» (de σκουλικιάζω «se remplir de vers») ;

c) *Idée de nourriture :*

δείψασα «j'ai soif» (de δειψῶ) ;

μέθυσσα «je suis ivre» (de μεθῶ) ;

πείνασα «j'ai faim» (de πεινῶ) ;

χόρτασα «je suis rassasié» (de χορτάζω ou χορταίνω).

d) *Notion de température :*

κάηκα «je brûle» (de καίω) (κάηκες «tu brûles», expression appartenant à un jeu de société) ;

κρύωσα «j'ai froid» (de κρώνω) ;
 πάγωσα «je gèle» (de παγώνω) (au figuré, aussi : παγώθηκα
 «je me glace de terreur») ;
 πούντιασα «je suis transi de froid» (de πουντιάζω) (TH.
 CASTANAKIS, *Τὰ Μυστήρια τῆς Ρωμιοσύνης*, p. 217 : τὶς
 πόρτες ! ἐπουντιάσαμε ! «les portes ! nous gelons !»).

e) *Activité générale de l'esprit :*

γρυκηθήκαμε «nous sommes d'accord» (de γρυκῶ) ;
 θυμήθηκα «je me souviens» (de θυμοῦμαι) (τώρα πὸν τὸ
 θυμήθηκα «pendant que j'y pense») ;
 κατάλαβα «je comprends» (de καταλαβαίνω) ;
 μυρίστηκα «je m'en doute» (de μυρίζουμαι «je flairer») ;
 συμφωνήσαμε «nous sommes d'accord, c'est entendu» (de
 συμφωνῶ) ;
 φωτίστηκα «j'y suis, je saisis» (de φωτίζω «j'éclairer») ;
 on dit aussi : μὲ φώτισες «tu me mets sur la voie»).

f) *Verbes impersonnels :*

Ces verbes sont relatifs à la *température* et aux *saisons*.
 Ainsi :

νύχτωσε «il fait nuit» (de νυχτώνει «la nuit vient») ;
 ξημέρωσε «il fait jour» (de ξημερώνει «le jour se lève,
 ou il se fait jour») (on dit également, avec un sujet : βάρεσε
 ὁ ἥλιος «il fait déjà grand jour») ; une chanson crétoise a ¹ :

ἐρρόδισε ἡ γι ἀνατολή,
 καὶ βγαίνει τ' ἄστρο τῆς ἀγῆς

«l'orient soudain est rose, et l'astre de l'aube commence à
 sortir») ;

σκοτείνιασε «il fait sombre» (de σκοτεινιάζει «l'ombre
 s'étend, le soir tombe») ;

χειμώνιασε «voilà l'hiver» (de χειμωνιάζει «l'hiver vient,
 approche, s'étend»).

D'une manière générale, il est toujours possible d'employer

¹ Cf. A. JEANNARAKIS, *Kretas Volkslieder*, p. 219, *Τὸ δαχτυλίδι* ; et
 HESSELING-PERNOT, *Chrestomathie néo-hellénique*, p. 167 ; le texte a été
 traduit par H. PERNOT, *Anthologie populaire de la Grèce moderne*, p. 141.
 On ne peut s'empêcher de penser à Homère : δύσσο ἥλιος, σκιάσσαν δ' ἀγνίαν.

à l'aoriste avec valeur de présent un verbe d'état ou d'action accompagné de *τώρα* «maintenant», ainsi : *τώρα ξύπνησε* «il vient de se réveiller» (mais : *ξύπνᾶ* «il est en train de se réveiller», et : *ξύπνησε* «il s'est réveillé», *εἶναι ξύπνημένος* «il est, il se trouve réveillé»), *τώρα σηκώθηκε* «il vient de se lever»; ces constructions répondent au français «venir de», et elles ont en grec même deux équivalents : *μόλις ξύπνησε* et *ὄτι ξύπνησε* «il vient de se réveiller»; là où le français recourt à deux verbes qu'il relie pour marquer la succession rapide des actions, le grec exprime les choses selon une autre conception : il se sert de l'aoriste qu'il accompagne d'un adverbe de manière, *μόλις* «à peine», ou de temps, *τώρα* «maintenant», et qui, ou bien ne situe pas encore l'action dans le passé (*μόλις*), ou la situe nettement dans le présent (*τώρα*).

2° *Expressions interrogatives.*

a) *Fait général :*

ἄφησα «je laisse» (de *ἀφίνω*) (*δὲ μ'ἄφησες*; «tu ne me laisses <rien> ?»);

ἔκαμα «je fais» (de *κάνω*) (*τῶκαμες*; «ça y est ?», familier);

ἔπαθα «je souffre» (de *παθαίνω*) (*τί ἔπαθες*; «qu'est-ce qui t'arrive ?», *τί ἔπαθες πού . . .*; «qu'as-tu donc à (que) . . . ?»);

ἔπαψα «je cesse» (de *παύω*) (*ἔπαψες κιόλας*; «c'est déjà fini ?», *ΧΕΝΟΠΟΥΛΟΣ, Πολυγαμία, p. 124*).

b) *Opération des sens :*

ἄκουσα «j'entends» (de *ἀκούω*) (*ἄκουσες*; «tu entends ?»); l'aoriste s'oppose au présent, dans cet usage interrogatif, en ce que *ἄκουσες* signifie seulement «tu entends ?», tandis que *ἀκοῦς* signifie «tu entends cela ?» avec une valeur intensive, parfois ironique);

εἶδα «je vois» (de *βλέπω*) (*εἶδες*; «tu vois ?», tandis que *βλέπεις* signifierait «tu vois bien ?»).

c) *Elocution :*

εἶπα «je dis» (de *λέω*) (*πῶς εἶπες*; «comment dis-tu ?»); on a aussi : *τί εἶπες*; «tu dis ?», tandis que *τί λές*;

«qu'est-ce que tu racontes là ?» a une valeur intensive¹);
 φώναξα «j'appelle» (de φωνάζω) (cf. VALAORITIS, *ibid.*,
 p. 58 :

κ' ἐν ᾧ μὲ σέρνουνε καὶ μὲ πατοῦνε,
 κᾶποιος ἐφώναξε . . . Στέκουν κι ἀκοῦνε

«et tandis qu'ils me tiraillent et m'écrasent, soudain on m'appelle . . . ils s'arrêtent pour écouter» (ποιός φώναξε; «qui appelle ?»).

d) *Expression d'un sentiment :*

γκιότισα «j'ai peur» (de γκιοτίζω, verbe qui exprime familièrement la peur) (γκιότισες; «tu as peur ?»);

ἔζωσα «j'entoure, je ceins» (de ζώνω) (σ' ἔζωσαν τὰ φείδια; «tu es inquiet? tu es à la torture? m. à m. : les serpents t'entourent ?»);

εὐχαριστήθηκα «je suis satisfait» (de εὐχαριστῶ «je remercie») (εὐχαριστήθηκες; «te voilà satisfait ?»);

ἡσύχασα «je suis tranquille» (de ἡσυχάζω) (ἡσύχασες; «te voilà tranquille ?»);

ικανοποιήθηκα «je suis content» (de ικανοποιῶ «je satisfais») (ικανοποιήθηκες; «tu es content ?»);

(τὰ) κατέβασα (τὰ μούτρα) «je fais la moue» (de κατεβάζω «je baisse (la tête)») (cf. PIKROS, *Τουμπεκί*, p. 80 : τὰ κατέβασε; «il boude ?»);

φοβήθηκα «j'ai peur» (de φοβοῦμαι) (φοβήθηκες; «tu as peur ?»).

e) *Opération intellectuelle :*

θυμήθηκα «je me souviens» (de θυμοῦμαι) (cf. ΧΕΝΟΠΟΥΛΟΣ, *Χερουβείμ*, p. 37 : κάτι θυμήθηκες : «cela te dit quelque chose? τίς ne te dit rien ?»);

κατέβηκα «je descends» (de κατεβαίνω, au figuré) (cf. PIKROS, *Τουμπεκί*, p. 84 : τώρα σου κατέβηκε αυτό; «c'est maintenant que tu y penses ?»);

κατάλαβα «je comprends» (de καταλαβαίνω) (κατάλαβες; «tu comprends ?»);

¹ Cf. mon étude des *Diverses Valeurs de l'aspect verbal en grec moderne*, in : *Bulletin de la Société de Linguistique de Paris*, n° 98, pp. 42-44.

μπῆκα «j'entre» (de μπαίνω, au figuré) (τώρα μπῆκες ; «maintenant tu y es ?», sous-entendu στο νόημα «dans le sens de ce que l'on dit»);

παρεξήγησα «je comprends mal, je me méprends» (de παρεξηγῶ) (σέ παρεξήγησα ; «je te comprends mal ?»);

σκάμπασα «je comprends» (de σκαμπάζω, qui exprime très familièrement l'idée de comprendre) (σκάμπασε ; «il comprend ?»).

Ces emplois sont courants sous la forme interrogative ; mais on rencontre les mêmes verbes à l'aoriste et avec la valeur temporelle de présent dans des phrases de type non interrogatif également.

3°) Formules courantes (au singulier ou au pluriel).

a) Politesse :

καλῶς (τά) δέχτηκες «te voilà content, tant mieux pour toi (de δέχομαι) (se dit au reçu d'une bonne nouvelle, ou à l'accueil d'amis, de parents, m. à m. «tu (les) reçois bien»);

καλῶς ἦρθες «tu arrives bien, c'est fort bien que tu viennes» (de ἔρχομαι) (se dit à l'arrivée d'un hôte, d'un ami, d'un parent);

καλῶς σέ ἦδρα «tu es bien aimable» (de βρίσκω) (réponse au souhait exprimé par la formule précédente et la suivante, m. à m. «je te trouve bien»);

καλῶς ὄρισες «sois le bienvenu» (de ὀρίζω «j'ordonne») (se dit à l'arrivée de quelqu'un, ami, parent, hôte, m. à m. «tu ordonnes à ton gré »);

χάρηκα πολύ «enchanté» (de χαίρομαι «je me réjouis») (se dit quand on fait la connaissance de quelqu'un qui est présenté, comme χαίρω πολύ, même signification ; on ajoute souvent : πού σέ γνώρισα «de faire ta connaissance»).

b) Idée de contentement ou de dépit :

γέλασα (de γελῶ «rire») «je me moque de, je triche» (μὲ γέλασες «tu te moques de moi»);

ἔπαθα (de παθαίνω) «je subis» (καλὰ τὴν ἔπαθες «c'est bien fait pour toi», τὴν ἔπαθα «çà m'arrive», τί ἔπαθες ; «qu'est-ce qui te prend ?»).

c) *Idee générale d'impatience, de colère :*

βαρέθηκα «j'en ai assez» (de βαριέμαι «je m'ennuie») (cf. plus haut) ;

έκοψα «je brise» (de κόβω «couper») (μουΰκοψες τὸ αἷμα, τὸ κεφάλι «tu me fais une peur !») ;

έσκασα «sapristi!» (de σκάνω «je crève») (cf. plus haut) ;

θύμωσα «je suis en colère, je me fâche» (de θυμώνω) (γιατί θύμωσες ; «pourquoi te fâches-tu ? ») ;

πήρα «je prends» (de παίρνω), dans l'expression τὸν πήρε δίπλα «il ne peut pas le souffrir», m. à m. «il le prend de côté», par opposition à l'expression où le verbe est au présent : τὸ παίρνω δίπλα «je m'étends, je m'allonge», m. à m. «je prends l'espace de côté, je prends mes aises») ;

σκοτίστηκα «j'en ai par dessus la tête» (de σκοτίζω «j'obscurcis») (cf. aussi : με σκοτίσες «tu m'assommes») ;

τρελλάθηκα «je suis fou» (de τρελλαίνω «j'affole») (τρελλάθηκες ; «tu n'es pas fou ? tu n'y penses pas ?»).

d) *Idee de crainte :*

γάνιασα «je me sèche» (de γανιάζω «je m'empâte») (γάνιασε ἡ γλῶσσα μου «j'ai la gorge sèche») ;

έχασα «je perds» (de χάνω), dans τᾶχασα «je perds la tête, je m'affole», sous-entendu τὰ μυαλά «l'esprit, la cervelle», et au passif dans χάθηκα «je suis perdu» ;

πιάστηκα «je suis pris, saisi» (de πιάνομαι) ;

τρόμαξα «j'ai peur» (de τρομάζω) (cf. KARKAVITSAS, Λόγια τῆς Πλώρης, p. 7 : ἀκούω τῆ φωνῆ . . . νὰ βροντᾶ . . . τρόμαξα καὶ τρέχω πίσω ἀπὸ τοὺς ναύτες «j'entends la voix . . . retentir . . . j'ai peur et je me mets à courir derrière les matelots») (cf. Xénopoulos, Χερουβείμ, p. 37 : καὶ με τρόμαξες «et tu me fais une peur !») ;

τσακώθηκα «je suis pris, saisi, pincé» (de τσακώνω) (cf. plus haut) ;

φοβήθηκα «j'ai peur» (de φοβοῦμαι) (cf. plus haut) ;

χρειάστηκα (de χρειάζομαι «j'ai besoin»), dans l'expression τὰ χρειάστηκα «j'ai peur» (expression familière de la peur) (cf. KONDOGLOU, Βασάντα, p. 139 : Ὁ Ξουρῆς τὰ

χρειάστηκε, καὶ γιὰ νὰ μὴν πῶ ψέμματα, κ' ἐγὼ τὸ ἴδιο, μὰ κ' οἱ δύο μας τὰ χρειαστήκαμε ἀκόμα πειό πολὺ . . . «Xouris est pris de peur, et, à vrai dire, moi aussi, et voilà qu'à nous deux nous avons encore plus peur . . .»).

D'autres faits pourraient être ajoutés à ceux-là. Le principe est que l'aoriste peut fréquemment se rapporter au présent. Or, jamais pareille valeur ne se rencontre pour l'imparfait.

Il y a lieu d'examiner les interprétations que l'on peut en donner.

II

Le fait a été remarqué dès longtemps, mais il ne semble pas que l'on en ait rendu compte d'une manière complète.

Déjà, E. Legrand¹ le signalait dans sa grammaire. Depuis, il n'est guère de grammaire courante qui ne le mentionne, mais sans en marquer suffisamment l'originalité ou l'importance, et sans l'interpréter. H. Pernot² écrit simplement (dans la 4^e édition de sa *Grammaire*, p. 171, REMARQUE I) : «L'aoriste de certains verbes peut avoir le sens du présent . . .» (il donne comme exemples *νύσταξα* «j'ai sommeil», de *νυστάζω*, *πείνασα* «j'ai faim», de *πεινώ*, etc.); il ajoute (*ibid.*, REMARQUE II) : «L'aoriste grec correspond également à un présent français dans des tournures comme : *κάηκες* «tu brûles !», *ἔπεσες* «tu tombes!», *χάθηκες* «tu es perdu !» etc.». L. Roussel,³ dans sa *Grammaire*, mentionne, p. 172, *δείψασα* «j'ai ou j'eus soif», et *πείνασα* «j'ai ou j'eus faim»; même remarque, p. 189; il ajoute, p. 188 : «Il (l'aoriste) indique une action ou un groupe d'actes considérés en bloc, et appartenant au passé; ou bien une action passée dont les conséquences subsistent; ou bien une action tout à fait mise en train, d'où un sens inchoatif», et il cite *πήγαμε*, *κουραστήκατε*, *γκιότισες*. Les grammaires grecques

¹ *Grammaire grecque moderne*, in 8°, Paris, 1878, p. 155.

² *Grammaire du grec moderne, Première Partie : Langue parlée*, 4^e édition, Paris, 1921 (Garnier); aujourd'hui, 5^e édition (1930).

³ *Grammaire descriptive du Roméique littéraire*, in 8°, Paris, 1922 (De Boccard). Une description plus complète de ces faits se trouve dans l'ouvrage de A. TZARTZANOS, *Νεοελληνική Σύνταξις*, 1928, Athènes, pp. 194-200.

de Vlastos,¹ Damaskinos,² Voutiéridis,³ Oekonomos⁴ sont muettes sur ce point.

Le défaut, à mon sens, d'une explication au moyen du sens inchoatif ou résultatif de l'aoriste est de ne rendre compte que de quelques cas, de ne valoir que pour quelques verbes, et non pour l'ensemble des faits qui, pourtant, se présentent bien dans des conditions générales analogues. Les exemples choisis plus haut sont tels que l'action indiquée par l'aoriste ne se réfère pas à un début ou à une fin (par exemple, VALAORITIS⁵ écrit :

*Φροσύνη, ναί, σ' ἀγάπησα . . .
 ἂν ἄσπρισα, ἂν ἐγέρασα,
 γιὰ σὲ θὰ ξανανιώσω*

«Oui, Frosine, je t'aime . . . s'il est vrai que je suis blanc, que je suis vieux, je rajeunirai pour toi»). On peut à la rigueur soutenir que *πείνασα* «j'ai faim», *δείψασα* «j'ai soif», *νύσταξα* «j'ai sommeil», s'expliquent par un sens inchoatif, comme en général les verbes marquant un besoin ou un désir ; mais ce n'est pas toujours avec cette valeur que ces aoristes sont employés. La langue oppose plutôt *πεινώ* «je suis affamé», *δειψῶ* «je suis altéré», *νυστάζω* «je suis somnolent» aux formes aoristiques correspondantes, qui, au lieu de l'état, indiquent un acte. Les aoristes *κουράστηκα* «je suis fatigué», *πήγαμε* «nous voici» auraient plutôt une valeur de résultat. Mais que dire de *ἔπεσες* «tu tombes», *ἄργησα* «je suis en retard», *ἔφτασα* «me voilà», *τί ἔπαθες* ; «qu'as-tu ?», etc. ?

On ne peut expliquer les valeurs de l'aoriste si l'on considère un moment de la durée, et, d'autre part, on ne peut rendre compte des changements possibles dans la désignation des temps.

¹ *Γραμματικὴ τῆς Δημοτικῆς*, Athènes, 1914.

² *Διδακτικὴ Γραμματικὴ γιὰ τὴν 5. Τάξη τοῦ Δημοτικοῦ*, Athènes, 1930.

³ *Γραμματικὴ τῆς Δημοτικῆς*, Athènes, 1932.

⁴ *Νεοελληνικὴ Γραμματικὴ (τῆς Κοινῆς Δημοτικῆς)*, Athènes, 1933.

⁵ *Œuvres Complètes (Ἄπαντα)*, III, 62. La citation est reproduite par L. ROUSSEL, *op. cit.*, p. 217.

Il semble, au contraire, qu'il faille partir d'un fait dominant : la valeur fondamentale d'aspect de l'aoriste.¹

Le verbe néo-grec repose sur l'opposition de deux thèmes, l'un de «présent», l'autre d'«aoriste». Au «présent», qui exprime la continuité ou la répétition de l'action, s'oppose l'«aoriste», qui exprime le momentané, le fait simple sans durée. Cette valeur n'exclut d'ailleurs nullement les notions de commencement ou d'achèvement de l'action, qui en sont dérivées, et qu'a prises l'aoriste là où les anciens systèmes morphologiques exprimant des aspects ont disparu de la conjugaison. Ces valeurs tiennent de l'aspect, non du temps. En effet, ce n'est pas parce que l'aoriste a un sens inchoatif ou résultatif, en plusieurs cas, que l'action qu'il traduit se réfère au présent, c'est parce que l'aoriste est avant tout un aspect que sa valeur temporelle n'est pas fixée de manière certaine : étant l'indication d'un «point» dans une action en cours, il peut se situer au commencement ou au terme de cette action. De ce que l'aoriste exprime d'ordinaire un passé, on pense qu'il ne saurait exprimer autre chose, et on veut expliquer sa valeur de présent par une raison temporelle. La valeur temporelle n'est pas, en réalité, liée à l'aoriste ; quel que soit, en tous cas, le temps auquel il se rapporte, l'aoriste dissimule toujours, derrière le «temps», l'«aspect». Entre «j'ai compris» et «je comprends», nous faisons en français essentiellement une différence de temps. Cette différence peut, certes, se retrouver en grec dans les formes *κατάλαβα*, *καταλαβαίνω*, mais d'autres oppositions, plus complexes, interviennent, qui peuvent d'ailleurs se combiner avec l'opposition temporelle.

Seul de tous les modes — à la différence du français, par exemple —, l'indicatif en grec moderne exprime des temps (cf. ci-dessus, p. 1), et, à ce titre, il possède des jeux distincts de désinences ; en gros :

¹ Cf. A. MIRAMBEL, *art. cité plus haut*. Voir aussi, du même auteur : *L'aspect verbal en grec moderne, Problèmes et Méthode* (in : *Revue de Philologie*, Paris, 1932, fascicules 3-4), et : *Précis de Grammaire élémentaire du Grec Moderne*, Paris (Belles-Lettres), 1939, pp. 118-19, 146, surtout 165-7.

-ω, -εις, -ει, -ουμε, -ετε, -ουν(ε) (pour le présent),
 -α, -ες, -ε, -αμε, -ατε, -αν(ε) (pour le passé).

L'opposition d'«aspect» est demeurée nette au *passé*, entre l'aoriste (ἔγραψα) et l'imparfait (ἔγραφα). Elle était fondamentale dans l'ancienne langue. La périphrase d'où est sorti le *futur* actuel (θέλω *và* avec le subjonctif)¹ a permis un jeu d'aspects, au futur comme au passé, par l'opposition de l'ancien subjonctif présent et de l'ancien subjonctif aoriste, aujourd'hui confondus, pour les désinences, avec les formes indicatives : θὰ γράφω, θὰ γράψω ; toute valeur modale propre s'en est retirée, et ils rentrent dans le système de l'indicatif, qu'ils complètent depuis la disparition du futur ancien. Mais, au *présent*, il n'existe qu'une seule forme, γράφω, qui normalement a la valeur d'un continu, mais peut, à l'occasion, exprimer le momentané, surtout accompagnée d'un adverbe ou d'un complément (manière, temps), susceptible de limiter la durée du procès.

Ainsi, comparé au passé et au futur, le présent, dans le verbe grec actuel, ne possède qu'une forme. Il n'y a pas là l'équivalent de ce qui existe en slave dans l'opposition du *verbe perfectif* et du *verbe imperfectif* (dobyť/dobyvat'), où l'on voit, d'ailleurs, le *présent perfectif* servir aussi de *futur momentané* au *verbe imperfectif* (kontchu/ budukontchat'). Un seul exemple en grec est celui des verbes de mouvement πάω/πηγαίνω «je vais» ; mais il s'agit là du jeu d'aspect *perfectif/imperfectif*, non du jeu *continu/momentané*. La nécessité d'exprimer, en nombre de cas, l'aspect «momentané» au présent, a amené le grec à utiliser l'aoriste, à défaut d'autre procédé,² et à s'en servir, en dehors de sa valeur

¹ Cf. J. PSICHARI, *Essai de Phonétique néo-grecque, Futur composé du Grec Moderne* (in : *Mémoires de la Société de Linguistique de Paris*, t. V, fasc. 5, 1884. Voir aussi : A. MIRAMBEL, *Le Futur néo-grec et l'aspect verbal* (en cours de publication).

² Le grec ancien a connu des verbes à suffixe -θω au présent, avec valeur «terminative» et «limitative» : ainsi φθινίθω s'opposait à φθίνω (cf. P. CHANTRAINE, p. 93 des *Mélanges Vendryes*, Paris, 1925). Ce suffixe n'a plus aucune valeur propre aujourd'hui, et πείθω «je persuade» s'oppose à son aoriste ἔπεισα comme γράφω à ἔγραψα ; -θω n'est plus qu'une désinence possible de présent, comme -νω, -ζω, etc. Le procédé n'était d'ailleurs

temporelle de «passé», comme d'un «présent momentané». Ceci permet de poser, pour le *mode indicatif*, et à l'intérieur de chaque *temps*, les oppositions d'*aspect* suivantes :

	<i>continu :</i>	<i>momentané :</i>
<i>Passé :</i>	ἔγραφα	ἔγραψα
<i>Futur :</i>	θὰ γράφω	θὰ γράψω
<i>Présent :</i>	γράφω	ἔγραψα

La chose était d'autant plus aisée que les thèmes verbaux ont gardé en grec une valeur d'aspect, et que, dans l'histoire du grec, *c'est l'aoriste qui, pour le verbe, a été l'élément le plus stable*. Il n'y a pas, rigoureusement, parallélisme dans l'opposition du présent à l'aoriste : les aoristes ont survécu à bien des présents, et des présents ont été refaits sur l'aoriste, d'une part (ainsi *μανθάνω* a disparu, alors que *ἔμαθον* se maintenait sous la forme *ἔμαθα*, forme sur laquelle a été refait le présent *μαθαίνω*)¹ ; d'autre part, des présents sont passés à un type de conjugaison différente, par l'intermédiaire de l'aoriste (*μεθύω* a disparu, et l'aoriste *μέθυσσα* s'est maintenu, mais, d'après le type *ἀγάπησα/ἀγαπῶ*, on a refait *μέθυσσα/μεθῶ*) ; enfin, il existe assez souvent, pour un aoriste, plusieurs formes de présent (*ἔκοψα* sert d'aoriste à *κόπτω, κόβω, κόβγω* «je coupe», *ἔξυσα* à *ξύνω* et *ξαίνω* «je gratte», *χόρτασα* à *χορτάζω* et *χορταίνω* «je rassasie», *κρέμασα* à *κρεμῶ, κρεμνῶ, κρεμάζω* «je pends», *ψηφίσα* à *ψηφῶ, ψηφίζω* «je vote», etc.). Le système du verbe, tel qu'il apparaît aujourd'hui, est le résultat d'une tradition dans laquelle des *oppositions essentielles de thèmes se sont maintenues, présent - aoriste, qui ont dominé la formation des modes et des temps*. Il y a équilibre entre le système verbal fondé sur la distinction des aspects, et le système verbal groupé en conjugaison. Le sens de

étendu qu'à certains verbes ; la formation n'a pas été généralisée. Le fait est curieux de voir l'indécision au présent, alors que les oppositions d'aspect sont nettes dans les formes du passé et du futur.

¹ Voir ma *Grammaire*, p. 162. Ajoutons que c'est l'aoriste qui a été le point de départ de plusieurs formations verbales dans les langues balkaniques (cf. A. MAZON, *D'une formation verbale slave d'origine gréco-turque*, in : *Mélanges Vendryes*, 1925) ; pour le roumain, voir K. SANDFELD, *Linguistique Balkanique*, Paris, 1932.

l'aoriste peut même, dans certains cas, être assez éloigné du sens du présent, toute question de temps mise à part : ainsi *σκουλιάζω* signifie «se remplir de vers», mais *σκουλίασα* signifie «être plein de vers» (cf. plus haut), *τὸ παίρνω δίπλα* signifie «s'étendre, se coucher», mais *τὸν πῆρε δίπλα* «il ne peut pas souffrir» ; ces faits sont à rapprocher de *τί λές* ; «qu'est-ce que tu racontes là !» et *τί εἶπες* ; «qu'est-ce que tu dis ?», *μίλα καλά* «parle comme il convient» et *μίλησε καλά* «parle bien», des nuances figurées ou de restriction pouvant ainsi être exprimées. Enfin, il est à noter que l'aoriste peut, non seulement se rapporter au futur (cf. plus haut, *ἔφτασα*, etc.), mais encore être remplacé, dans certains cas, par un futur ; ainsi, au lieu de *ἔσκασα* (cf. les exemples cités plus haut), on rencontre *θα σκάσω* (même sens) (ΧΕΝΟΠΟΥΛΟΣ, *Μονάκριβη*, p. 240 : *θα σκάσω* «j'enrage ! sapristi !», et *Χερουβείμ*, p. 40 et 94 : *θα μὲ πνίξις* «j'étouffe !»).

La persistance de l'aspect dans une forme verbale, le maintien et le développement de cette forme, sa fréquence d'emploi dans la langue courante, ont atténué le besoin (réalisé ailleurs) de coordonner et d'organiser la conjugaison. L'idée de *temps* est demeurée secondaire, et les facilités qu'offrait l'aoriste ont contribué à renoncer à la création d'un présent aoristique. C'est la forme dont *la valeur d'«aspect» se trouvait le plus définie* qui a été *le moins fixée dans l'expression du «temps»* : c'est aussi celle qui, *dans l'ordre de l'«aspect» exprimait l'action dans sa moindre extension*. On a vu en slave le *perfectif* capable de se rapporter au *présent* et au *futur* (au contraire de l'*imperfectif*). En grec encore, l'ancien infinitif aoriste (de type *-σαι*, devenu *-σει*) a pu, précédé de *ἔχω*, être jadis un *futur* (*ἔχω χάσαι* «j'ai à perdre, je vais perdre») et devenir un *passé* dans la forme actuelle du *parfait* (*ἔχω χάσει* «j'ai perdu, je me trouve avoir perdu»).¹ Alors, enfin, que les formes de l'indicatif (présent, imparfait, futur continu

¹ Cf. P. CHANTRAINE, *Histoire du Parfait en grec*, dernière partie, et notamment le rôle des périphrases ; sur ce point, voir aussi N. BANESCU, *Die Entwicklung des griechischen Futurums von der frühbyzantinischen Zeit bis zur Gegenwart*, Bucarest, 1915, p. 79.

et momentané) n'expriment qu'une ou deux variétés du temps (présent et futur immédiat ; passé et futur dans le passé ; futur éloigné ou immédiat, passé dans le futur ou futur antérieur), l'aoriste exprime aussi, non seulement le futur à brève échéance et le présent momentané, mais le passé simple, le passé immédiat, le conditionnel passé et le plus-que-parfait). Par ailleurs, le rôle des *suffixes* a été dominant pour les oppositions de thèmes. Dans les *désinences*, l'effort de la langue a été moindre, et uniquement simplificateur. Il ne serait pas exagéré de dire que l'aoriste a été la base principale dans la construction du verbe néo-grec.

III

L'histoire du grec montre que ce n'est là ni un accident, ni un fait nouveau. L'origine s'en retrouve dès le grec ancien. Le fait s'est développé avec les efforts que la langue a déployés postérieurement pour renouveler l'expression de l'« aspect ». (Voir l'article de J. Humbert, *Verbal Aspect: has it evolved from ancient to modern Greek?* dans *The Link*, No. 1, 1938, p. 21, et la distinction entre l'aoriste ancien objectif et l'aoriste moderne momentané en soi.)

I. On sait, en effet, qu'en grec ancien, il n'est pas rare que l'aoriste se rapporte au présent, marquant l'idée verbale, pure et simple.¹ Ainsi, dans la langue homérique (P, 54), les présents *τρέφει*, *δονέουσιν*, *βρύει* marquent des actions continues et s'opposent aux aoristes *ἐξέστρεψε*, *ἐξετάνωσε*,² qui indiquent des actes sans durée, mais les deux groupes d'actions sont relatifs au présent, et ne se distinguent que par l'aspect.

II. Il convient, bien entendu, de distinguer cet aoriste de l'aoriste dit *gnomique* et de l'aoriste dit *épistolaire*³ ; ce dernier est purement temporel ; l'autre tend à être remplacé par le présent dans la langue de la κοινή. Par ailleurs, il semble qu'à cette époque l'emploi de l'aoriste à valeur de présent se développe ; nous sommes à un moment où le

¹ Cf. KOCH-ROUFF, *Grammaire Grecque*, 2^e édition, Paris, 1887, p. 97, § 1, et p. 379, Remarque II.

² Cf. aussi F. M. ABEL, *Grammaire du Grec Biblique*, Paris, 1927, p. 256.

³ *Ibid.*, pp. 256-7.

grec a remanié ses procédés d'expression de l'aspect, éliminant les parties caduques de son système verbal et faisant effort pour les renouveler (il suffit de penser à la formation du futur nouveau et à l'élimination du parfait ancien, qu'une périphrase est venue remplacer).

Quatre groupes de faits peuvent être invoqués à l'appui.

1°) D'abord, ce n'est pas un hasard que *l'aoriste gnomique* tende à s'éliminer en grec biblique¹ et à être remplacé par le présent, comme exprimant un fait général, de portée universelle. Par exemple, Luc emploie le présent (VIII, 16) : οὐδείς δὲ λύχνον ἄψιας καλύπτει, mais l'aoriste gnomique encore (XIII, 18) : ὁμοία ἐστὶν κόκκῳ σινάπεως, ὅς λαβὼν ἀνθρώπου ἔβαλεν εἰς κῆπον αὐτοῦ; en regard, Matthieu a (XIII, 31) : ὅς λαβὼν . . . ἔσπειρεν, mais Marc (IV, 32) évite cet aoriste et écrit : ὅς ὅταν σπαρῇ. Il semble ainsi que les rédacteurs aient eu le souci de conserver à l'aoriste sa valeur d'idée verbale pure et simple, et d'éviter tout autre emploi.

2°) En second lieu, *la fameuse tournure du grec biblique, bien connue, καὶ ἐγένετο*, qui sert à introduire une circonstance nouvelle dans un récit, ne doit pas être interprétée comme ayant une valeur de passé; elle indique simplement un fait nouveau «et voilà que». Marc, en effet, emploie² à la place un présent (II, 15) : καὶ γίνεται; ailleurs encore, il se sert de καὶ εὐθὺς; la valeur de l'aoriste ἐγένετο est donc bien peu temporelle,³ comme le prouvent les tournures, déjà en

¹ Cf. F. STIEBITZ, *Etude sur l'aspect verbal dans le grec du Nouveau Testament* (Nachrichten der Čech. Ges. der Wissenschaften, 1, 1929); D. HESSELING, *op. cit.*, pp. 216-17; A. H. SALONIUS, *Zur Sprache der griechischen Papyrusbriefe*, Helsingfors, 1927; A. POUTSMA, *Over de tempora van de Impers. en de Conj. hortat. prohib. in het Grieks*, in: *Verhandel. Kon. Akad. v. Wetensch.*, t. XXVII, 1928, n° 2, §§ 20-1; P. CHANTRAINE, *Histoire du Parfait Grec*, Paris, 1927; H. PERNOT, *Études sur la langue des Évangiles*, Paris, 1927; H. FRISK, *Participium und Verbum finitum im Spätgriechischen* (in: *Glotta*, 17, 1928, p. 65).

² Cf. H. PERNOT, *op. cit.*, p. 189 et suiv.; *Recherches d'Histoire et de Philosophie religieuses*, 4, 1924, pp. 553-8, *Kai ἐγένετο dans les Évangiles*; JOHANNESHOHN, *Z. vergl. Sp.*, 53, 1926, 161.

³ On remarquera, dans les exemples qui vont suivre, que καὶ ἐγένετο est accompagné d'un aoriste. Il ne saurait être nullement question d'une

usage chez Marc : ἐγένετο . . . ἦλθεν (I, 9), et surtout chez Luc, ce qui est remarquable si l'on songe au souci de correction de cette rédaction : ἐγένετο . . . ἐπορεύθη (II, 1), ἐγένετο . . . ἔλαχε (I, 8), ἐγένετο . . . εἶπέν τις (XI, 1), ἐγένετο διέστη (XXIV, 51), etc. ; l'évolution dans l'emploi de cette tournure apparaît normale en grec, si l'on tient compte de la valeur *aspective* de l'aoriste, qui, loin de s'affaiblir, est demeurée vivante et que la langue a même mise en relief ; elle montre qu'il ne s'agit pas là d'un «hébraïsme», encore que l'hébreu puisse se rencontrer avec le grec, sur ce point comme sur d'autres.¹

3°) Un troisième fait est le souci, de la part des premiers traducteurs slaves des Évangiles, de distinguer l'aoriste du présent, et de rendre le présent grec par l'«imperfectif» slave, l'aoriste grec par le «perfectif» slave. Déjà, A. Meillet signalait le fait dans ses *Études sur l'Étymologie et le Vocabulaire du Vieux-Slave* (Paris, 1902, 1^{ère} Partie, p. 6), et A. Mazon en notait l'importance dans une étude plus récente.²

4°) Enfin, il apparaît que *les textes évangéliques connaissent l'emploi de l'aoriste avec valeur de «présent momentané»,* tel qu'il se trouve dans la langue actuelle ; ainsi, on lit dans Marc (IV, 1) : καὶ πάλιν ἤρξατο διδάσκειν . . . καὶ συνάγεται πρὸς αὐτὸν ὄχλος πλεῖστος ; l'opposition entre l'aoriste ἤρξατο et le présent συνάγεται qui le suit n'est pas de «temps», mais d'«aspect» : la première action est indiquée comme un simple fait, la seconde est présentée dans son développement. C'est la même valeur d'aspect de l'aoriste qui se retrouve (III, 20) : ἰδοῦ ἐξῆλθεν ὁ σπείρων σπείραι.

prétendue «concordance des temps», mais il s'agit simplement d'annoncer et de noter des événements qui se présentent dans la trame d'un récit (voir plus bas pour le mélange des formes de présent et d'aoriste).

¹ Cf. H. PERNOT, *ibid.*, p. 199. On a déjà vu plus haut que les exemples homériques sont empruntés à des comparaisons ; il faut tenir compte aussi du style et des valeurs affectives ; les faits néo-grecs n'en sont pas non plus exempts.

² Cf. A. MAZON, *D'une formation verbale slave d'origine gréco-turque*, p. 265 des *Mélanges Vendryes*, Paris, 1925.

καὶ ἐγένετο ἐν τῷ σπείρειν ὃ μὲν ἔπεσεν παρὰ τὴν ὁδὸν, καὶ ἦλθεν τὰ πετεινὰ καὶ κατέφαγεν αὐτὸ· καὶ ἄλλο ἔπεσεν . . . καὶ εὐθὺς ἐξανέτειλεν . . . καὶ λέγει αὐτοῖς . . . ὁ σπείρων τὸν λόγον σπείρει· οὗτοι δὲ εἰσὶν οἱ παρὰ τὴν ὁδὸν ὅπου σπείρεται ὁ λόγος, καὶ ὅταν ἀκούσωσιν, εὐθὺς ἔρχεται ὁ Σατανᾶς καὶ αἶρει τὸν λόγον . . . etc. Chez Luc même, en rencontre des aoristes à valeur de présent¹ (I, 47) : ἡγαλλίασεν τὸ πνεῦμα μου ἐπὶ τῷ θεῷ τῷ σωτηρὶ μου, (I, 51) : ἐποίησεν κράτος . . . διεσκόρπησεν . . . καθεῖλεν . . . Ἀφέωνται de Luc (V, 23) répond à ἀφίενται de Marc (II, 5), ἀφίομεν de Luc (XI, 4) à ἀφήκαμεν de Matthieu. L'opposition d'aspect que permet l'usage du présent et de l'aoriste, rend compte du fait que les deux formes sont employées côte à côte dans le même texte; ce n'est pas là une incohérence dans l'usage des temps, mais un jeu naturel des aspects verbaux; là où, dans les textes évangéliques, le personnage essentiel a la parole, ou encore là où son discours est d'un intérêt particulier, les mots qu'il prononce sont introduits par λέγει, alors qu'ailleurs l'auteur de la rédaction emploie εἶπεν (qui n'implique aucune antériorité sur λέγει); ainsi : εἰς γραμματεὺς εἶπεν αὐτῷ· διδάσκαλε, ἀκολουθήσω σοι ὅπου ἐὰν ἀπέρχῃ· καὶ λέγει αὐτῷ ὁ Ἰησοῦς· αἱ ἀλώπεκες φωλεοὺς ἔχουσιν (Matth., VIII, 19-20); καὶ λέγει αὐτοῖς ἐν ἐκείνῃ τῇ ἡμέρᾳ ὀψίας γενομένης· διέλθωμεν εἰς τὸ πέραν (Marc, IV, 35-6), mais, un peu plus loin (IV, 40) : καὶ εἶπεν αὐτοῖς· τί δειλοὶ ἐστε οὕτως; etc. Le même usage est conservé dans la

¹ Cf. BURTON, *New Testament Moods and Tenses*, 1894; MOULTON (*Grammar of the Greek of the New Testament*) parle d'un «aoristic present»; S. ANTONIADIS (*L'Evangile de Luc, esquisse de grammaire et de style*), citant les exemples de Luc, dit : «Voici quelques aoristes dont l'action est simplement considérée dans son unité, indépendante de toute condition»; l'emploi de ἡγαλλίασεν τὸ πνεῦμα trouve en grec moderne son équivalent dans la formule de politesse χάρηκα πολὺ «je suis enchanté» (cf. plus haut).—Peut-être convient-il de se demander si la survivance du *parfait* dans les rédactions évangéliques (cf. P. CHANTRAINE, *op. cit.*, pp. 229 et suivantes) ne répondrait pas au besoin de se servir d'une forme verbale pour le *passé*, afin de permettre à l'aoriste de tenir lieu d'un présent momentané, s'opposant au présent continu ou intensif, et à cause, justement, de son emploi. Au cours de l'histoire du grec, le passé a cessé de se situer dans le présent pour se situer temporellement dans le passé.

tradition du folklore¹ — voir notamment les contes populaires d'EFTALIOU et de DROSINIS —, et même dans la littérature narrative; ainsi KONDYLAKIS écrit (*Όταν ήμουν δάσκαλος*, 1916, p. 124): *Τότε άκούω . . . μιá φωνή . . . έπάγωσε τó αίμα μου* «voilà que j'entends un cri . . . mon sang se glace», et KARKAVITSAS (*Λόγια τής Πλώρης*, 1926, p. 7): *άκούω τή φωνή . . . νά βροντά . . . τρόμαξα και τρέχω πίσω άπό τούς ναύτες* «j'entends mugir la voix . . . j'ai peur et je cours derrière les matelots».

La langue des papyrus n'atteste pas un usage développé de cet aoriste²; ceci tient au fait que l'aoriste dit «épistolaire» s'était conservé dans les textes papyrologiques par les formules, et, d'autre part, au fait que c'est à la fois dans la langue littéraire et dans le parler courant que l'«aoriste présentiel» a lieu de se rencontrer.³ Mais ceci n'infirme en rien la valeur de l'aoriste en question, qui est attestée antérieurement aux papyrus, et après eux.

III. Les textes médiévaux en connaissent l'usage. Ainsi, on lit dans le *Λειμών* de JEAN MOSCHOS,⁴ n° 77: *λέγει και άλλω· σὺ, πῶς γέγονας τυφλός; άπεκρίθη κάκεινος λέγων . . . λέγουσιν άλλω κάκεινοι· σὺ, πῶς γέγονας τυφλός; ó δέ άπεκρίθη . . .* «il dit aussi à l'autre: comment es-tu devenu aveugle? Et il répond en disant . . . Eux lui disent:

¹ Les parlars néo-helléniques n'ignorent pas ces emplois; voici, entre de nombreux exemples, un texte de Chypre (*Κυπριακά Χρονικά*, 1^o année, fascicule V, 1923, p. 154): *κάουρας έβασίλεψεν και τρώει τούς ανθρώπους* «le crabe se replie et dévore les hommes».

² Cf. MAYSER, *Grammatik der griechischen Papyri aus der Ptolemäerzeit*, 1926, t. II, *Satzlehre*, p. 139 et suivantes; A. H. SALONIUS, *op. cit.*

³ Par exemple (cf. PERNOT-D. HESSELING, *Chrestomathie néo-hellénique*, 1925, p. 22) un papyrus du II^o siècle porte: *εγραψά σοι*, qui est plutôt une formule, où se conserve l'aoriste épistolaire, qu'un présent immédiat (*έχαρη πολλά, και αύτης άρας άφορμήν εύρων εγραψά σοι ταυότα τά γράμματα*, dit le texte).—A ce propos, il faut noter que l'usage «littéraire» est souvent moins éloigné de l'usage «courant» qu'on ne serait tenté de le croire. Il s'écarte, au contraire, souvent de l'usage «officiel», ce qui n'est pas la même chose, l'usage «officiel» s'éloignant volontairement de l'usage «courant»: l'histoire de la «question de la langue» en Grèce éclaire ce point (voir: A. MIRAMBEL, *Les états de langue» dans la Grèce actuelle* (in: *Revue des Cours et Conférences*, Paris, 1937-8).

⁴ Cf. H. PERNOT-D. HESSELING, *ibid.*, p. 34.

comment es-tu devenu aveugle ? Et il répond . . . » ; on ne peut considérer ἀπεκρίθη comme un passé, entre les présents λέγει et λέγουσιν, mais, la réponse suivant immédiatement la question, l'aoriste sert à marquer cette nuance («voilà qu'il répond, il répond aussitôt»). On lit encore dans le même passage, à quelques lignes de distance : ἀκολουθῶ οὖν ὀπίσω τοῦ ἐξοδίου ἵνα θεωρήσω ποῦ μέλλουσιν αὐτὸν θάπτειν· οἱ δὲ ἦλθον ὀπίσω τοῦ ἀγίου Ἰωάννου καὶ ἔθηκαν αὐτὸν εἰς μνημεῖον καὶ ἀπῆλθον «je suis derrière le convoi afin de voir où ils vont l'enterrer ; eux viennent aussitôt derrière Saint Jean et le mettent au tombeau et s'en vont» ; le texte marque la différence entre l'action continue (ἀκολουθῶ) et la série d'actes mentionnés simplement, sans durée (ἦλθον, ἔθηκαν, ἀπῆλθον). Pareillement, on trouve dans un texte de MICHEL GLYKAS¹ (vers 284-6) :

ἄλλο παρέκει οὐ δύναμαι, κρατῶ καὶ οὐχ ὑπομένω,
βλέπεις, ἀπῆρε με ἡ χολή, τὸ τί λαλῶ οὐκ ἐξεύρω,
ἔβρασεν ἡ καρδιά μου, παρέκει οὐδὲν βαστάζω

«je n'en puis plus, je résiste et je succombe, tu vois, le chagrin me tient, je ne sais ce que je dis, mon cœur est bouillant, je n'y tiens plus» ; les actions marquées par les aoristes ἀπῆρε, ἔβρασεν, sont immédiates, et s'opposent à celles que marquent d'une manière continue les présents δύναμαι, κρατῶ, ὑπομένω, λαλῶ, ἐξεύρω, βαστάζω.

IV. Ainsi, l'emploi de l'aoriste avec valeur de «présent momentané» s'est développé au cours de l'histoire de la langue, pour aboutir à l'usage actuel. La souplesse de l'emploi de cet aoriste a fait que la langue n'a pas eu besoin de créer d'autre système pour exprimer une opposition qui se rencontre aux autres temps de l'indicatif ; elle a même permis à l'aoriste de pouvoir exprimer un futur.

Les raisons qui rendent compte de ce rôle pris par l'aoriste sont :

1°) le développement particulier d'une forme qui offrait une

¹ *Ibidem*, p. 38.

grande fixité dans le système du verbe, comme «thème» d'abord, comme «valeur» fondamentale ensuite; de cette fixité dans les caractères essentiels est résultée une certaine mobilité dans les emplois;

2°) *l'élimination de ce qui, dans la forme, n'avait pas valeur concrète*; seules les valeurs de cet ordre sont demeurées, et, par extension, la langue a pu tirer de la forme le plus grand parti;

3°) *l'emploi familier des valeurs temporelles, autres que le passé, par l'aoriste*; les exemples, rapportés précédemment, montrent que l'on a affaire à des verbes exprimant des opérations simples et courantes.

Il n'est pas sans intérêt de noter que, dans les verbes transitifs à deux voix (type : *χάνω/χάνομαι*), l'aoriste «présentiel» au médio-passif a essentiellement une valeur *passive*, en ce qu'il exprime un état immédiat ou une action immédiatement subie, tandis que le présent a normalement la valeur d'un *réfléchi*, la distinction entre les deux valeurs n'étant pas autrement nette : *σώθηκα* «je suis sauvé», *χάθηκα* «je suis perdu», *ζαλίστηκα* «je suis étourdi», *τσακίστηκα* «je suis épuisé», *τσακώθηκα* «je suis pris», *φωτίστηκα* «je suis éclairé», *κουράστηκα* «je suis fatigué», en regard de *σώζομαι* «je me sauve, je fais mon salut», *χάνομαι* «je me perds», *ζαλίζομαι* «je m'étourdis», *τσακίζομαι* «je me brise», *τσακώνομαι* «je me prends», *φωτίζομαι* «je m'éclaire», *κουράζομαι* «je me fatigue», etc. Ainsi, il s'établit, en plus de l'«aspect», une discrimination dans la «voix» entre deux valeurs — passive et réfléchie —, grâce à l'opposition des formes du présent et de l'aoriste dans le «temps» présent. Ces présents peuvent avoir le sens passif, à condition que cette valeur soit précisée par le contexte : *χάνομαι* «je suis perdu» (*ἀπὸ* . . . «par . . .»); quant aux aoristes correspondants, c'est lorsqu'ils se réfèrent au présent qu'ils ont la valeur passive, mais, s'ils se réfèrent au passé, ils ont normalement la valeur réfléchie et n'expriment le passif que si le contexte l'indique : *χάθηκα* «je me suis

perdu» (au passé) mais «je suis perdu» (au présent), et «j'ai été perdu» (ἀπό . . . «par . . .»), en regard de χάνομαι «je me perds» ou χάνομαι (ἀπό) «je suis perdu (par)»; plus net encore est l'exemple de σκοτώνω «je tue»: σκοτώθηκε «il s'est tué» (passé), mais σκοτώθηκε (ἀπό) «il a été tué (par)», etc.

Le développement de l'aoriste avec valeur de «présent momentané», et, éventuellement, de «futur immédiat, à brève échéance», éclaire semble-t-il, la structure du verbe grec moderne, et l'on peut dégager de ces faits quelques conclusions :

1°) le point de départ s'en trouvait dans le grec ancien ; la langue n'a pas en besoin d'innover, de créer, il lui a suffi de maintenir et de généraliser ;

2°) le grec a été peu soucieux de «système» au cours de son histoire ; le verbe offre aujourd'hui le résultat d'un conflit de tendances qui a abouti à un équilibre, plutôt qu'à une totale élimination de certaines au profit d'autres. Dans un ensemble dominé par des oppositions d'«aspect», le «temps» s'est exprimé sans avoir jamais pu détruire l'aspect, et il est toujours demeuré subordonné à l'expression de l'aspect. Le temps, en tous cas, n'a jamais trouvé en grec d'expression qu'à l'indicatif, et, quand la langue a recréé un futur, elle l'a fait par un procédé qui permettait le jeu des aspects ; au passé, la distinction existait, la langue l'a maintenue ; au futur, elle l'a créée ; au présent, elle l'a développée par l'utilisation d'une forme temporellement peu fixée, mais qui était le complément du thème de présent par l'aspect. Bref, on ne peut concevoir en grec un «temps» qui serait exprimé en dehors de l'«aspect» ;

3°) le grec a toujours fait reposer son verbe sur le jeu d'aspect «aoristique/présentiel». Il a, morphologiquement, effacé toutes les autres oppositions — quitte parfois à les reconstituer ou à en donner des équivalents à l'aide d'autres procédés —, mais il a généralisé et développé l'opposition du présent et

de l'*aoriste* dans les formes verbales, qui toutes relèvent nécessairement d'un thème ou de l'autre ;

4°) de toutes les formes verbales, c'est l'*aoriste qui, en grec, a le moins fixé sa valeur temporelle*. Un thème exprime toujours le même aspect ; une forme est susceptible parfois d'exprimer des temps différents, mais à condition que la valeur d'aspect demeure la même.

Par là se marque la *continuité du grec*, dans l'élément qui offre le caractère le plus conservateur de son histoire : le verbe.

THE DISINTEGRATION OF THE AVESTIC STUDIES ¹

By W. B. HENNING

THE Avesta was made known in Europe by Anquetil Duperron in the second half of the eighteenth century, but remained a dead letter until Eugène Burnouf, the great French philologist, turned his attention to it. The publication of his *Commentaire sur le Yasna*, in 1833, marked the beginning of modern Avesta philology. From Burnouf until the end of the century the interpretation of the Avesta made great strides. In 1895 appeared the last volume of Geldner's great edition of the text, and in 1904 Bartholomæ's dictionary was published which ranks among the best dictionaries in the world. Thus, at the beginning of the present century, the main work on the Avesta seemed to have been done, and there was little prospect of further progress.

This dismal prospect was suddenly changed by the unexpected discovery in Central Asia of an enormous number of documents written in four previously unknown Middle Iranian languages. The oldest of these, from the second century of our era, were not far removed from the later parts of the Avesta. Thus it was to be hoped that the infinitely increased knowledge of the Iranian history, languages, literatures, and religions, which we owe to these discoveries, would greatly contribute to the elucidation of the many peculiar features presented by the Avesta, which had to be left unexplained owing to the absence of sufficient material.

However, this hope has been realized only to a limited extent. For at the very same time that the first Central Asian discoveries came in students of the Avesta began to

¹ A few days after reading this paper to the Philological Society I received, through the kindness of the author, Professor H. W. Bailey's book: *Zoroastrian problems in the ninth-century books* (Clarendon Press, 1943). In his admirable chapters on "Patvand" and "Den-dipirih" Professor Bailey has dealt with the problems discussed in the present paper. It gives me pleasure to find that there is a large measure of agreement between his views and mine, at least on the more important points.

follow a road which led them more and more to dissociate their work from Middle Iranian Studies. Broadly speaking, their work during the last decades was dominated by a hypercritical attitude towards the text of the Avesta, and by the attempt at reconstructing the supposedly original text, while the Middle Iranian Studies in the meantime tended to show that the text as it stands is perfectly correct and not in need of any reconstruction.

One of the most important steps on the road to the *reconstruction of the original Avesta* was the metrical theory which Geldner advanced in 1877.¹ He found that considerable portions of the Younger Avesta, in particular of the Yashts, or sacrificial hymns, were poems. In the manuscripts of the Avesta there is no distinction of the poetical parts from the prose sections. This was a discovery of great value.

Geldner then proceeded to dissect the text into lines and strophes, and noticed soon that the number of syllables that went to make up a line was fairly regular, mostly about eight. From this he drew the conclusion—and in this, I think, he was wrong—that the lines should have had eight syllables regularly in the original text, and that the metrical principle of the Younger Avestan verse was a mere counting of syllables. In a restricted number of cases he also admitted lines of ten or twelve syllables.

However, it was obvious that among the lines of eight syllables there were also lines of six, seven, or nine syllables, and in no small number at that. Now, it was well known that in Avestan the words were frequently shorter by a syllable than the corresponding words of theoretical Old Iranian. Thus Geldner was led to assume that at the time when those poems had been composed, the language had still approximated to theoretical Old Iranian, and that the shorter or otherwise deviating forms in the manuscripts were due to faulty tradition. In fact, he believed that the existing text of the Avesta was corrupt throughout, and this opinion was shared by many scholars.

¹ K. Geldner, *Ueber die Metrik des Jüngereren Avesta*, Tübingen, 1877.

Let us take an example. Avestan *drūm* corresponds to Sanskrit *dhruvām*, the Old Iranian form should have been **druvam*. Wherever *drūm* occurred in an apparently catalectic line Geldner restored *druvam*, and thus made up the number of syllables to eight.

Here one must remark that even if one accepted Geldner's theory of the eight-syllable line it would not necessarily follow that the text was corrupt, and that the poets actually had said *druvam* instead of *drūm*. For the difference of an ordinary *ū* from an *û* due to the coalescence of two vowels may have persisted in the pronunciation, probably in the intonation, and therefore *drūm* may have counted as a word of two syllables.¹

Geldner developed a whole set of rules for the substitution of Old Iranian forms in lines which seemed to be short of a syllable or two. But he had to admit a great number of exceptions, namely, wherever the lines had already the desired number of syllables.² He also allowed himself some licence in introducing forms which were justified neither by the traditional text, nor by Old Iranian or Sanskrit. Thus he vindicated three syllables to words such as *uyra*: Sanskrit *ugrā*, *mahrka*³: Sanskrit *markā*, *zaθra-*: Sanskrit *hótrā*,⁴ *drafša*,⁵ *nmāna*,⁶ *raoxšna*,⁷ and so on,⁸ but this should apply only where occasion demanded. Still more daring were his attempts at reducing verses of nine syllables to eight. Here he had recourse to such questionable expedients as reading *dugdərəm*: Sanskrit *duhitāram*, or *hvanharəm*: Skt. *svāsāram*

¹ Cf. Wackernagel, *Altindische Grammatik*, i, § 45 (pp. 50 sq.).

² Geldner, p. 10: *mazdā* = 2 or 3 syll.; p. 11: *mā* = 1 or 2 syll.; p. 12: *gəuš* = 1 or 2 syll.; p. 13: *kərəsāspa*, *vištāspa*, etc. = 3 or 4 syll.; pp. 16 sq.: *zəm* = 1 or 2 syll.; pp. 34 sq.: *-amna-* = 2 or 3 syll.; p. 24: freedom in use of *-y-* and *-v-* as *-uv-* and *-iy-*; etc.

³ *Ibid.*, p. 37.

⁴ *Ibid.*, p. 35.

⁵ *Ibid.*, p. 37.

⁶ *Ibid.*, p. 36.

⁷ *Ibid.*, p. 31.

⁸ *Ibid.*, p. 33, *āθraʃ* trisyllabic, *χšōiθnē* trisyllabic; p. 38: "restitution" of the augment.

as disyllabic words,¹ or as reducing by a syllable the ending of the Nom. Plur. of *i*- and *u*-stems, *-ayō* and *-avō*, in Skt. *-ayas* and *-avas*.²

Owing to the considerable latitude which Geldner had allowed himself, his theories met with little response. In fact it is not too much to say that his book rather had the effect of discouraging any further study of the Avestan metrics.

Geldner himself, in his edition of the text of the Avesta, took less notice of the metres than one would have expected. Therefore, it may seem rather unnecessary to discuss the merits of his suggestions now. That, however, is not so. For in more recent times they have seen an unexpected revival. Actually the belief in the eight-syllable line, and in the counting of syllables as the principle of the Avestan verse, seems to be one of the not too numerous points on which the students of the Avesta are agreed. How this has come about I am at a loss to say. For Geldner's demonstration was, I think, manifestly unsatisfactory, and there has been no attempt since at re-establishing his ideas on a more secure basis.

We now have to consider the reconstruction of the so-called Arsacid text of the Avesta, which is associated with the name of the late Professor Andreas. Since I owe my initiation into this subject to Andreas, it is painful to me to find myself compelled to disagree with him on this problem, perhaps one of the most important points in the field of Iranian Studies. However, I think he would have been the first to scrap his own theory, had he been allowed to see the flood of fresh Middle Iranian material which has become available only in recent years. For at the time when he first propounded his ideas, in 1902, only one Middle Iranian dialect, the Pahlavi language, was known, and this lack of information had inevitably the consequence that the picture of the linguistic development of Iranian was somewhat distorted.

The existing text of the Avesta, which is commonly referred

¹ *Ibid.*, p. 51.

² *Ibid.*, p. 53; cf. also the restitution of *-ā* in the place of *-āni* (p. 52), the contraction of *-anəm* to *-əm* (pp. 53 sq.), and the "Samdhi" (pp. 54 sqq.).

to as the vulgate text, or the traditional text, is written in an unusually elaborate and precise script. There are fourteen characters for the vowels alone, and altogether forty-eight. This contrasts with the other scripts used in Iran in ancient times, all of which derive from the Aramaic script of twenty-two letters (not counting cuneiform Old Persian, the Indian Brahmi used for Khotanese and Maralbaši Saka, Turkish runes, and Chinese for Middle Persian and Parthian, and similar exceptions). Of these comparatively few letters some were not even employed: thus, the Iranian parts of Pahlavi were written with only nineteen characters, and the Sogdians managed with not more than seventeen.

These scripts share the peculiar character of the Aramaic alphabet in expressing only the consonants, at least in theory. In practice, the letters Aleph, Yod, and Waw, which primarily represent the consonants: Glottal stop, *y*, and *w*, are used also for the vowels. Such was also the script in which Pahlavi was written, the Middle Iranian language which was used in Persia in Sassanian times (third to seventh century), but also earlier.

Now, the elaborate Avestan script with its forty-eight characters was introduced or invented at some time during the Sassanian period, possibly in the fourth century. But if the Avesta had been committed to, let us say, leather, before that time (and the Zoroastrian tradition affirms that that had been done), the script used for it can have been only the Pahlavi script, or at least one of similar character.

Andreas believed that such an earlier text, written in a simple script of the Pahlavi type, had indeed existed, and that it had been *transliterated* into the elaborate Avestan script, which had been created because the ambiguity inherent in the older system of writing had more and more endangered the understanding of the sacred books. For convenience' sake the earlier text has been called the "Arsacid" text, because it is supposed to have been written down first during the half millennium when Persia was ruled by the Arsacid or Parthian kings, before the Sassanian period.

Andreas thought it possible to reconstruct the Arsacid text, with the help of the palæographic analysis of the Avestan script, which in common with most scholars he believed to have been developed from the Pahlavi script. The regular substitution of a fixed character for each letter or group of letters in the traditional text, should produce the earlier text quite mechanically. The thus reconstructed Arsacid text should form the sole basis for our study of the Avesta, while the vulgate text constituted merely an interpretation of the original, which we were at liberty to accept or reject.

For the transliterators, he maintained, had been a bunch of ignoramuses, who had had at their disposal no information worth mentioning beyond the Arsacid text. They had done their work mechanically, but thanks to this mode of proceeding we were enabled to reconstitute the older text, which so to speak inhered in the traditional text. Their main mistake lay in assimilating the ancient language to their own Middle Iranian form of speech. We ought to take no notice of their reading, but interpret the Arsacid text in agreement with the Sanskrit grammar and the principles of comparative philology.

In so far as the form of the words in the original Avestan language is concerned the new method endorsed the results which Geldner had reached with the help of metrical considerations. Let us take the same example we had used before: for Avestan *drūm* Geldner had substituted *druvam* because in his opinion the metre demanded a disyllabic word. Andreas said that *drūm* reflected the spelling *D-R-W-M* in the Arsacid text, and that we should consider how a word spelled in this way should be read, without being deflected by the phonetic interpretation which the traditional text offered. Since our reading should aim at producing a properly Old Iranian form, in accord with the Sanskrit grammar, we obviously had no choice but to read *druvam*.

Before describing the effect which this theory had on the development of the Avestic Studies, I should like to state what objections can be raised against it. It is clear that the

acceptance of the whole theory depends on what credit we can give to its three basic points: Firstly, that the Arsacid text ever existed. Secondly, that it was *transliterated*, in the way Andreas postulated. Thirdly, that the transliterators were very ignorant people. The most important of these points is the third: For, to revert to our example, even if we agreed that there had been a word spelled *D-R-W-M* in an Arsacid text, and that it had been transliterated as *drūm*, we still might consider that the transliterators were justified in writing as they did, and in refusing to adorn their manuscripts with genuinely Old Iranian forms.

Firstly, that the Arsacid text ever existed. The Zoroastrian tradition relates that the Avesta had been written down already before Alexander, and that the surviving books had been collected by a Parthian king by name of Vologasus. However, since the reliability of this tradition is under review, it will be better to disregard it altogether for the moment. Actually, it has been doubted whether the Avesta has been written even in far later times, before the end of the Sassanian period, but such extreme views need not detain us.

But if we want to establish the history of the Avesta from non-Zoroastrian statements only, we must bear in mind that at best we cannot expect very much. If in writing the history of the early Christian literature one had to rely solely on non-Christian and anti-Christian reports, the picture would be neither complete nor correct.

There are no Greek or Roman accounts that in any way could be regarded as conclusive. Pliny tells us that Hermippus, the author of a book on the Magi, who lived in the third century before our era, had written a commentary on Zoroaster's verses, in which he had given a table of the contents of his *volumina*.¹

More valuable perhaps is what Pausanias relates in his *Description of Greece*.² In describing the well-known Zoroastrian ceremony of re-kindling the sacred fire from the ashes, he

¹ C. Clemen, *Fontes Hist. Relig. Pers.*, p. 42.

² *Loc. cit.*, pp. 62 sq.

mentions casually that the Magian priest while reciting some invocations in a barbarian language, read them out of a book. Unfortunately, it was in Lydia, rather a long way from Persia, that Pausanias observed² that ceremony, although on the other hand he says that the temple in question belonged to the "Lydians who are surnamed Persian".² Also, it would be rather irregular for a Magian priest to read his invocations; he ought to know them by heart.

In view of the somewhat unsatisfactory nature of these references, it is fortunate that recently an unambiguous statement has come to light, which is all the more valuable for originating from a hostile witness. The witness I mean is Mani who was born in the year 216, in the reign of the last Arsacid king, and who spent most of his life in Persia under the first kings of the Sassanian dynasty. In one of the Manichæan books in the Coptic language which were discovered in Egypt in 1930, Mani says³: "Zoroaster came to King Hystaspes and preached in Persia, and selected just and righteous disciples. . . . However, he did not write any books. But his disciples after his death remembered (his words) and wrote the books which they read to-day."

This, I think, is perfectly clear. If the Zoroastrians had had to rely merely on oral tradition, Mani would have been delighted to say so. For the point he wants to make is that the Sacred Scriptures of all religions other than his own were of dubious authority, because they had not been composed by the founders of the religions themselves. The written Avesta was, in the eyes of Mani, a well-known and long-established fact, obviously not a recent innovation. There is, therefore, no doubt that the Arsacid text of the Avesta existed. Incidentally, the Zoroastrian tradition on this subject is confirmed.

We now come to the second point, the question whether the ancient Arsacid text has been *transliterated* into the elaborate Avestan alphabet. It is important to realize that the assumption of such a transliteration is by no means a

¹ θεασάμενος οίδα. ² Λυδοῖς ἐπικληθῶν Περσικοῖς. ³ *Kephalaia*, p. 7, 27-33.

necessity. The Zoroastrian tradition whose predominant interest lay in proving the continuity of the textual history, is silent on this point, and this, I think, goes a long way to show that there was no such transliteration.

The tradition merely says that the Avesta has several times been burned and dispersed, but collected again later, and that the last great collection took place during the Sassanian period. It has been suggested¹ that the word "collection" here means: "collection of the oral tradition," and this seems to be the correct solution. There is no doubt that the oral transmission of the Avesta, from teacher to pupil, was an important factor in the history of the sacred books.²

It would therefore be reasonable to suppose that when in Sassanian times the need for a new collection made itself felt the new Avestic script was invented, and the various texts were written in it at the dictation of carefully selected priests who were believed to have preserved the ancient texts best. Whether those priests found it necessary to refresh their memories by looking up old manuscripts, we shall never know.

Whatever the truth may be in this question, I have no doubt that in no way can we hope to restore the Arsacid text on the ground of any palæographic analysis of the Avestan script. After Andreas there has been another such attempt³ with different results in almost every point. The reason for this divergence of views is not far to seek. It is simply this, that the Avestan script is by nature a poor field for palæographic studies. For the Avestan script is not the result of slow development in the course of centuries. It was something entirely new, a departure from the customary system of writing. In one word, it was an invention. Therefore, at best we could only find out what was in the mind of the inventor or the inventors—and that would seem rather a hopeless task.

¹ Cf. Nyberg, *Rel. Alt. Iran*, 424.

² This point has now been fully discussed by Bailey, *Zor. Probl.*, 149 sqq.

³ H. Junker, *Caucasica*, ii (1925), 1-92, iii (1926), 82-139.

That the Avestan script is an invention is clear also from internal evidence. Until more recent times it had never been doubted, and in fact it is obvious, that the starting-point for the inventor was the ordinary Pahlavi script of Sassanian times, which was different from the Pahlavi script of our manuscripts only in a few minor points.¹ Wherever the Pahlavi script was clear its characters were adopted by the inventor. This affects nearly all Pahlavi letters. But wherever Pahlavi was ambiguous, or lacked a letter, new characters were invented.

The third point was the ignorance of the transliterators, or, we should say, the priests who wrote down the traditional text. Since the original text is supposed to have been different from the present Avesta in almost every word their ignorance must have been boundless indeed. However, one cannot help noticing that the changes which distinguish the language of the traditional Avesta from theoretical Old Iranian, are fairly regular, and in fact have the character of phonetical laws. This ought not to have been so, had these changes been due merely to mistakes in transliteration. Thus one is led to suppose that the language of the Avesta was a real language, as distinct from a paper language.

But this is a quarrel of a hundred years' standing, in which we are unlikely to get very far with general considerations. There is only one way of establishing the genuineness of the Avestan language. Namely, it is argued that the so-called mistakes are due mainly to the influence of that language which the transliterators themselves spoke, i.e. Pahlavi or Middle Persian. But if we can show that changes which distinguish Avestan from Old Iranian and Middle Persian alike, are shared by other Iranian dialects, this should be regarded as decisive.

Such cases can indeed be proved with the help of the fresh

¹ This has been established by C. Salemann, *Ueber eine Parsenhandschrift* . . . (vol. ii des Travaux de la 3^e session du Congrès International des Orientalistes, 1876). His results have in no way been shaken by Junker's arguments.

Middle Iranian Material. Let us take the shortening of long vowels in front of *y* or *w*. For Sanskrit *chāyā*, Old Iranian *sāyā*, "shadow," we have *sāyag* in Middle Persian, and *sāyé* in Persian. But in Avestan it is *sayā*, and this shortening of the first *ā* is shared by Sogdian *sayāk*,¹ Ormuri *syāk*^a, Pashto *siyā*.

Similarly before a *w*. Skt. *nāvāja*, OIr. *nāvāza* "a sailor", is *nāvāz* in MPers. and Parthian, but *nawāza* in the Avesta and *nawāz* (*nw*'z) in Sogdian.²

A characteristic case is Skt. *jīva-*, OIr. *ǰīwa-* "to live". In OPers. it is *ǰīwa-*, in Parth. *ǰīw-*, in MPers. *zīw-*, in Pers. *zīy-*. But in Av. the *ī* disappears, and this has happened also in Sogd. *ǰw-*, in Pashto *ǰw-*, Yaghnobi *ǰū-*, Khotanese *ǰū-*.³ On the basis of Andreas' theory there is no way of explaining convincingly why the transliterators should persistently have written *ǰw-* for OIr. *ǰīw-* in face of *zīw-* in their own language.

One could mention a considerable number of such differences, but I think a single one is sufficient to prove that this language is not merely a huge mistake. In this investigation we are somewhat hampered by the absence of any modern dialects in precisely that region which must be considered to have been the home of the authors of the Avesta, the region from the Hāmûn lake in the south to the oasis of Merv in the North and to Balkh, the ancient Bactra, in the North-East.⁴

¹ = 1. "shadow", 2. "canopy, pavilion". Persian *sāyé* also has the second meaning, cf. *Fārsnāmé*, Introd., p. xxix. In Jewish Persian *sāyé* renders Hebrew *sukkāh* "booth" (Is. 1, 8; 4, 6; etc.) and *mlūnāh* "hut" (Is. 24, 20).

² Or Av. *ašavan*, Zoroastr. Pahl. *ahlaw* (Man. 'hlw): Skt. *rtāvan-*, OPers. *artāvan-*, Sogd. *artāw*, MPers., Parth. *ardāw*, Pahlavi *ardā*. But Av. *ašavasta-*: Sogd. *artōsp-* (dissimilated as Bal. *gidisp*, Ormuri *ǰusp*).

³ For determining the position of Avestan among its fellow Iranian dialects, this point has no less weight than the arguments which led Tedesco, *Le Monde Oriental*, xv, 256 sq., to the conclusion that Avestan belonged to the North-Western group. I do not see how one can dismiss it, "la langue de l'Avesta étant un dialecte du Nord-Ouest" (Tedesco, *Bull. Soc. Ling.*, 25, 57).

⁴ Cf. Morgenstierne, *Report on a Linguistic Mission to Afghanistan*, 1926, pp. 28 qq.; differently *Indo-Iranian Frontier Languages*, vol. ii, p. 24, n. 1.

From the dialectological point of view the language of the Avesta takes its place between the Western Iranian dialects as spoken in present-day Persia, and the Eastern dialects on the Indian frontier and to the North of the River Oxus.

The theory of Andreas has sometimes been described as the "starting-point for the modern Avesta-philology". Many eminent scholars, Benveniste, Duchesne, B. Geiger, L. H. Gray, Lommel, Meillet, Wackernagel, and many others have, at some time or other, accepted it in a more or less modified form. It has been elaborated and developed in various ways.

For example, one has assumed that there may have been several independent transliterations of the Arsacid text which were reflected in the various readings of our manuscripts. One has also spoken of various readings in the Arsacid text. One has thought to discover cases where the transliterators had misread the Arsacid text. Further, it has been suggested that the scribes of the Arsacid text had confused letters of similar shape, but this would seem a rather unsafe way of proceeding since nobody can possibly say what the script of the Arsacid text was like. Finally, for explaining passages in late Avestan books the language of which is in no way up to the standard of Old Iranian, one has supposed that perhaps the endings of the words had altogether been omitted in the Arsacid text, and that the existing endings had been added by the transliterators.¹

But the most important development was the union of the transliteration theory with the metrical principles of Geldner. On the one hand, the help of the "transliterated" text gave full freedom in reading the separate words. On the other hand, the eight-syllable metrics provided a means of adding and omitting words and syllables. The combination of both methods has served to transform the text of the Avesta in a fashion which I believe is unparalleled in other branches of philology.

In all this far too little attention has been paid to the soundness of the basis, which has mostly been taken for

¹ Cf. Lommel, *ZII.*, i, 195 sqq., vi, 126 sqq.

granted. The consequence is that at present the students of the Avesta are split into two groups each of which takes little or no notice of the results of the other.

At the beginning of this paper I pointed out that Geldner's metrical theories¹ did not work out quite satisfactorily. At its end, I feel I ought to make an alternative suggestion.

Let us cast a glance at the newly-discovered remains of Middle Iranian poetry, of which the oldest, the Parthian poems of the third and fourth centuries, are in point of time not too far removed from the later portions of the Avesta. All Middle Iranian poetry, Middle Persian, Parthian, and Khotanese,² has this feature in common that the number of syllables to a line is variable. The important point throughout is the number of *stressed* syllables.

Here I take into account only those poems that are divided into lines in the manuscripts. They alone can provide a secure basis for metrical studies. For it is true, the hypothetical Avestan metrics have been applied also to Pahlavi books in which the text is not divided into lines, but in doing so one was forced to the notion that the Pahlavi texts, too, were corrupt throughout and had to be emended continually. The assumption that the principle of the Middle Iranian verse was the constant number of stressed syllables,³ is in accord with the general character of the Middle Iranian languages which, as is well known, were dominated by a stress of great intensity.⁴

¹ They have been elaborated also by J. Hertel (*Beiträge zur Metrik des Avestas und des Rgvedas*, 1927) whose opinions I fear I cannot share. Musical rhythm formed the basis of the Avestan (and Vedic) metres according to H. Weller, *ZII.*, i (1922), 115 sqq.

² On Khotanese (Saka) metres see St. Konow, *NTS.*, vii, pp. 7 sqq.; xi, pp. 6 sq.

³ See my paper in *NGGW.*, 1933, p. 317. Cf. Christensen, *Les Gestes des Rois dans les traditions de l'Iran antique*, Paris, 1936, pp. 46 sqq.

⁴ On stress in Iranian see Meillet, *Journ. As.*, 1900, i, 254-277; Gauthiot, *Mém. Soc. Ling.*, xx, 1916, 1-25; Tedesco, *ZII.*, ii (1923), 302, n. 4; Morgenstierne, *Report . . . Afghanistan*, p. 17 n.; Reichelt, *Iranisch (Geschichte der indogermanischen Sprachwissenschaft*, vol. iv), 46 sq.; H. Hirt,

The favourite type of verse has lines of either three or four stressed syllables, the number of unstressed syllables being free.¹ The line of three arses comprised between five and ten syllables, as a rule, but in this case the average number was seven or eight.² It seems to me that the verse of the Younger Avesta is in no way different from the Middle Iranian line of three stressed syllables. Already Geldner³ had noticed that 80 per cent of those lines which he recognized as metrical contained either three words or three words and a proclitic or enclitic monosyllable, but unfortunately he did not draw any conclusion from this fact.

So it may seem advisable to abandon Geldner's metrical scheme. With it, the need for emending not only countless passages, but the whole of the language, will disappear. I do not mean to say that the text of the Avesta should not be emended here and there. There are probably just as many corrupt passages as in any other book of equal antiquity. But I do mean that there is no justification for emending every word of it.

Akzent, 1929, 193–8. A remarkable study of the stress in Parachi was given by Morgenstierne, *IIFL.*, i, 30 sqq. Within the accentuation theory proposed by Meillet and Gauthiot, it is difficult to see why some words should be derived from the nominative, and others from the generalized genitive of *-a-* stems. Moreover, the extension of the genitive in *-ahya* can hardly be applied to the Eastern Iranian dialects. But Persian by itself presents difficulties, cf. (nouns) *paig* < *pádika*, MPers. *bašn* < *bázina-*, but *čakuš* < *čakúša*; (adjectives) *pahn* < *páθana*, *zard* < *zárta*, but *tanúk* from *tanúka*; an unpleasant case is *navád* < *naváti* (instead of **naud*). In comparing several Iranian languages one finds striking cases of divergent development. E.g. Parthian *az* < *ázam*, but Chr. Sogd. *zu*, Pashto *zə* < *azám*; Persian *mury* < *mrga*, but Sogd. Khwar. (*a*)*mya* < *mrgá*; Pers. *kard* < *kfta-*, but Sogd. *kti* (Nom.) < *krtáh*, *ktú* < *krtám*; Pers. *navád*, but Saka *nautä*, *notä* < *naváti*; Pers. *pahn*, but Pashto *plan* < *páθana*. Noteworthy is OIr. *upári* which throughout had stress on the second syllable, against Meillet's rule, but in conformity with the Vedic accent MPers. *abár*, Pers. *bár*, Sogd. *par* (probably also Pashto *par*), Saka *vīrā*.

¹ Cf. Old Icelandic poetry.

² See especially the Khotanese Rāma poem, published by Bailey, *BSOS.*, x, 365–376. On its metre see Bailey, *JAOS.*, 59, 461.

³ *Loc. cit.*, p. viii.

EXAMPLES

1. Three stresses to a line. Avestan.¹

Y. 11, 6.	nōiṭ áhmi nmāne zánāite	8 ²
	áθrava náēda raθáēštá	8
	náēda vástryō fšúyaṣ	6
Yt. 10, 103.	yim harətárəmča áiwyāxštárəmča	10
	fradáθaṭ Áhurō Mázdā	8
	víspayaṣ frávōiš gáēθayaṣ	8
	yō háretača áiwyāxštača	8
	yō ánavaṇuhábdəmnō zāēnaṇha	10
	nipāiti Mázdā dāmaṇ	7
	nišháurvaiti Mázdā dāmaṇ	8
Yt. 10, 39 sq.	išavásčiṭ aēšam ərəzífyō.párəna	11
	huθáxtaṭ háča θánvanāṭ	8
	jíya.ṭatānhō vázəmna	8
	arštayásčiṭ aēšam húxšnúta	9
	tíyra dárəya-árštaya	7
	zárštvačiṭ aēšam frádaxšánya	9
	vázəmna háča bázubyō	8
	kárətačiṭ aēšam húfrāyúxta	9
	yōi niyráire sárahū mašyākánam	11
Yt. 10, 30 sq.	yásə.θwā aoxtō.námana yásna	9
	ráθwya váča yázaitē	7
	bárō.záoθrō ašáva	7
	aoxtō.námana θwá yásna	8
	ráθwya váča síra	6
	Míθra yázāi zaθrábyō	7
	ráθwya váča səvíšta	7
	ráθwya váča adáoyamna	8

¹ The accents are meant merely to indicate which words I imagine were stressed; so far it is impossible to say, with any degree of certainty, which syllable of a word bore the stress.

² Approximate number of syllables. It is a feature of the Avestan language that the delimitation of "syllables" is uncertain and subject to fluctuation. This fact by itself runs counter to the current belief that the syllable is the determining unit in the Avestan poetry.

Yt. 10, 17.	yó nōiṭ káhmāi aiwi.dráoxδō	8
	nōiṭ nmánahe nmánō.pátēe	9
	nōiṭ víšō víspátēe	7
	nōiṭ zántēuš zántupátēe	8
Yt. 10, 50.	yáθra nōiṭ xšápa nōiṭ témá	8
	nōiṭ áotō vátō nōiṭ gárəmō	8
	nōiṭ áxtiš póuru.máhrkō	7
	nōiṭ āhítiš dáēvō.dáta	8
	náēda ¹ dúnmaṇ uzjásaiti	8
	háraiθyō páiti bárəzayá	8

2. Three stresses to a line. Parthian (*Mir. Man.*, iii, g, 201 sqq.).²

'Až rōšn ud yazdán hēm	6
'Ud izdéh búd hēm až hawín	8
'Amwášt abar mán dušmanín	8
'Ušán au murdán idwášt hēm	8
Bág hēm kē zád až bagán	7
Bámén humayášt ud niság	8
Brāzág xumbōy ud hužíhr	7
Bid awás gád hēm au niyáz	8
Gríft hēm anáság išmagán	8
Gastgarán kē kerd hēm warád ³	8
Gríw wxēbeh námr kerd	5
Gášt angáfád ud wxárd hēm	7
Dēwán yaxšán ud paríg	7
Dužárús táríg aždahág	8
Durčíhr gandág ud syáw	6
Dárdum was marán did až hawín	9
Average :	7.4

¹ In studying the Gathas (which are outside the purview of this paper) Meillet observed that *naēda* was stressed, while *nōiṭ* could be proclitic. This holds good also for the Younger Avesta. See *Journ. As.*, 1900, i, 276 sq. Lommel, *ZII.*, vi, 141 sqq., "emends."

² Cf. also *Mir. Man.*, iii, g 1-81.

³ = "prisoner". Cf. Av. *varaiθya-*, etc.

3. Four stresses to a line, with a rythmical pause after the second. Middle Persian (M 83/2 + M 235 : " canon " and additional verses here omitted ; cæsura marked in the MSS.).

Āfrīn nēw ud istāyīšn	ō frēstagān i wuzargfīh	7 + 8	15
Ba'ān tahmātarān	ud pāsbānān i dēn	6 + 6	12
Gēhbān ¹ wigrād	Kaftīnūs sārār	4 + 5	9
Dōšārmīgār i nēw	Yāqōb Narimān	6 + 5	11
Hanzamān ōzáxt	i Mahrespandān nēwān	5 + 7	12
Wizīdagfīh abzār	ud dēn i xwāštīh	6 + 5	11
Zōridān abzawād	az pidār bay-Zerwān	6 + 6	12
Hamēw istāyihéd	az hamág wuzargfīh	6 + 6	12
Tahmīh padīréd	az ba'ān i bārīst	5 + 6	11
Yazdegerdfīh ud istāyīšn	az zōrān i wuzargfīh	8 + 7	15
Xudāwān Yišō'	sārār i frēstagān	5 + 6	11
Rōšnihā wārēnād	ō ašmā tahmān	6 + 5	11
Mānī xudāwān	pūs i wuzargfīh	5 + 5	10
Nērōgāyēnād pad wehīh	ō ašmā xwābarān	8 + 6	14
Sāg i wisp istāyīšn	ud āfrīn i zindāg	6 + 6	12
Az hamág yazdegerdfīh	ō ašmā farruxān	7 + 6	13
Paiwāzédum ō wāng	um bawéd frayādāg	6 + 6	12
Čunum az nóx ud fratúm	pad zór i abzār	7 + 5	12
[Qār]ēd? drūd ud rāmīšn	pad wispān šahrān	6 + 5	11
Rāmēnéd ō xwāštīgarān	ud srāxsēnéd ō dōyān ²	8 + 7	15
Šādīh abzāyéd	ō rāyēnāgān i xwāštīh	5 + 8	13
Taxtīhā wārēnéd	ō wispān hurwānān ³	6 + 6	12
	Average :	6·1 + 6	12·1

¹ = " shepherd " (not " *welthüter* "), cf. the meaning of Pashto *yēlē*.

² Var. lect. *dēwān* ; cf. *BSOS.*, ix, 82. *dōy* from *dāwya* - ?

³ A profusion of similar Parthian verses has been published. For example, lines with two stresses : *Mir.Man.*, iii, g 169-200. Lines with four stresses : *ibid.*, m 50-62 ; n 16-36. Strophes with two lines, four stresses each, and cæsura after the second : *ibid.*, d, e ; Waldschmidt-Lentz, *Stellung Jesu*, 112 sqq. Strophes : 4 + 4 + 4 + 3, *Mir.Man.*, iii, text i, etc.

ANNUAL REPORT FOR 1941.

During the year 1941 the Society held only one ordinary meeting, the Anniversary meeting on 1st May, when after the usual business Mr. Yoshitake introduced a discussion on *Numerals—especially numbers of two digits*. As on other occasions the Society enjoyed the hospitality of the School of Oriental and African Studies, and it is a gainer by the opening of the School's new buildings at the University of London.

The year 1941 saw little progress made with publications owing in part to the preoccupation of the Publications Secretary with work of national importance. Arrangements made since the end of the year have overcome some difficulties; *Transactions* 1940 have passed the final proof stage, some material for the next issue has gone to press and, while Professor Thomas's *Nam-text* is still delayed, Dr. L. R. Palmer's *Grammar of Post-Ptolemaic Papyri* is now in the press.

With three new members, one of them from U.S.A., and three resignations there were 177 names on the membership list for 1941. Twelve of these members, however, are in enemy or occupied countries and there are some two dozen other subscriptions still unpaid; several of these are due from libraries which will pay arrears when they receive our publications.

This report cannot omit a reference to the great loss just sustained by the death of the last President, Professor R. W. Chambers.

15th May, 1942.

J. R. FIRTH } Joint Honorary
A. WOODWARD } Secretaries.

THE PHILOLOGICAL SOCIETY
BALANCE SHEET, 1941

GENERAL FUND

RECEIPTS.			EXPENDITURE.			
	£	s.	d.	£	s.	d.
To Balance			2 8	By Stationery and Miscellaneous Printing		
" * Annual Subscriptions : 1941 (129)	135	15	7	" Stamps :	1	13
1942 (1)	1	1	0	Postage and receipt	1	13
Refunded : 1941 (1)	1	1	0	Register of Companies	5	2
	137	17	7	" Transfer to Life Subscription Fund :		
" Interest :				Entrance Fees	120	9
Deposit Account	1	5		Subscription refunded	955	8
Life Fund : War Loan	9	7	3	Bank Current Account	2	
" Sales	9	8	8	Post Office General Fund	1,075	17
" Entrance Fees	23	5	3			
" * Members whose subscriptions are unpaid,	3	3	0			
37 (including 12 in enemy or occupied						
countries) :—						
132 Subscriptions for 1941	£138	18	7			
169 Ord. Members at £1 1s.						
would be	£177	9	0			
8 Life Members						
177 Members in 1941						
			1,082 17 2			1,082 17 2

We have examined these accounts and checked the vouchers and bank books and we certify that they are correct.

IDA C. WARD,
J. A. STEWART.

LIFE SUBSCRIPTION FUND

RECEIPTS.		£	s.	d.	EXPENDITURE.	£	s.	d.
To Balance	:	260	14	7	By Investments £270 3½% War Loan at cost	263	15	5
„ Transfer from General Fund	:	3	3	0	„ Cash in Post Office Life Fund Account	2	2	2
		£263	17	7		£263	17	7

We have examined these accounts with the Bank book and the Bank receipts for the Certificates and we certify that they are all correct.

IDA C. WARD,
J. A. STEWART.

5th May, 1942.

PHILOLOGICAL SOCIETY

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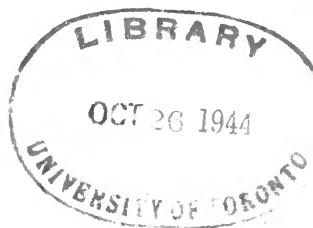
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NOTES ON SOME ENGLISH LOAN-WORDS IN WELSH¹

By A. S. C. Ross

THE English loan-words of Welsh offer many points of interest to the English philologist and I propose to discuss some of them in this note. The standard work on the subject is T. H. Parry-Williams, *The English Element in Welsh*. It will be convenient to present the discussion in the form of a commentary on this work, to which paragraph-numberings without title of work refer.²

§ 1b. *drel* 'knave, churl'. This probably represents OE. *præll* (ME. *prall* MnE. *thrall*) with shortened vowel (Luick § 383.4) and normal W. *e* for OE. *æ* (as in W. *crefft* 'handicraft, trade') < OE. *cræft*—§ 1a) rather than, as given, OE. *præl* (ME. *prēl*) with exceptional W. *e* for OE. *æ* ME. *ē* (as in W. *ystên* 'a pitcher, ewer, a kind of vessel' < OE. *stæna* or ME. *stēne* (MnE. *steane*)—§ 1b).

§ 21 ff. It is clear from § 22 that W. *e* is the normal representation of E. *ĕ* (e.g. W. *help* < E. *help*). But beside forms with this normal representation, Parry-Williams gives others in which E. *ĕ* is apparently otherwise represented, viz. by W. *a* (§ 21a) and by W. *y* or *i* (§ 21b). As he points out, some of these forms are easily explained. Thus W. *marsiant* 'merchant' does not represent an E. form with *ēr* but one in which ME. *ēr* has become *ār* (cf. ME. *marchant* etc.—see NED. s.v. *Merchant*, sb. and a.); on the other hand W. *cerfio* 'to carve' represents an E. form before the operation of this change (cf. ME. *kerue* etc.—see NED. s.v. *Carve*, v.). W. *clerc* beside *clarc* 'clerk' may be due to the influence of the E. spelling. Parry-Williams also suggests tentatively that some of the examples of W. *y*, *i* apparently corresponding

¹ I should like to express my thanks to E. S. Olszewska for advice on various points.

² Abbreviations: E. = English; EDD. = J. Wright, *The English Dialect Dictionary*; Fr. = French; Lat. = Latin; Luick = K. Luick, *Historische grammatik der englischen sprache*; NED. = J. A. H. Murray, etc., *A New English Dictionary*; W. = Welsh. The abbreviations O (Old), M (Middle), Mn (Modern) are used before the names of languages.

to E. *ě* may actually reflect E. forms with *ĩ* due to the change *ě* > *ĩ* in certain positions in E. (he compares MnE. *English*—cf. Luick § 379). But among the words given by Parry-Williams there remains a nucleus with W. *a* and with W. *y, i* for which he gives no explanation. In several cases it is however possible to point to a form with *ǎ* or *ĩ* which is to be considered as the etymon of the Welsh form rather than the etymon with *ě* given by Parry-Williams. Viz. :—

I. W. *a* : etymonic *ǎ* :—

chwalkys ‘whelks’; cf. E. *walke* (NED. s.v. *Whelke*¹ *ε*).

tranh ‘a trench’; cf. E. *tranche* (< OFr. *tranche* beside OFr. *trenche* > MnE. *trench*) which is recorded from *Melusine* by NED. s.v. *Tranche*.

“*tranket* kylllell krydd : *Trenket*.” ME. *trenket* is from OFr. *trenquet, trenchet*, a derivative of OFr. *trencher* (see NED. s.v. *Trinket*); presumably *tranket* derives (either directly or through an unrecorded English form) from an OFr. **tranquet, tranchet*¹ (cf. OFr. *tranche, trancher* beside *trenche, trencher*).²

II. W. *y, i* : etymonic *ĩ* :—

bryst (?) ‘breast’; cf. E. *brist* (NED. s.v. *Breast*; Luick § 379).

bysant ‘bezant’; cf. E. *byzant* (NED. s.v. *Bezant, byzant*); the English form with *y* is doubtless due to the direct influence of Latin *byzantius* (sc. *nummus*).

clyfer, clyfar ‘clever’. The English word is difficult (see NED. s.v. *Clever*, a.). Here it will suffice to say that a form with *ĩ* is plentifully attested in the Modern English dialects, cf. *klivə(r)* N. Yorks., E. Lancs., S. Cheshire, N.W. Derbyshire, Middle Shropshire, Somerset, N.W. Devon; *klivər* Ireland, Northumberland (EDD. Index, s.v. *Clever*).

synysgal ‘seneschal’; cf. Lat. *siniscalcus* beside *senescalcus* (Ducange, *Glossarium Mediæ et infimæ Latinitatis* s.vv.).

limwsen ‘a lemon’; cf. E. *limon* (NED. s.v. *Lemon*, sb.¹) < Fr. *limon*.

¹ F. Godefroi, *Dictionnaire de l'ancien français, Complément* s.v. *Tranchet*.

² On OFr. *en* beside *an* in such words see K. Nyrop, *Grammaire historique de la langue française* I § 215.

pibirment 'peppermint'; cf. E. *piper* (NED. s.v. *Pepper*) < Lat. *piper*.

simant 'cement'; cf. ME. *symant*, *ciment* (NED. s.v. *Cement*) < OFr. *ciment*.

syndal 'sendal'; *trysor* 'treasure'; (*trysorwr trysorydd* 'treasurer'; *trysori* 'to treasure'); *tryspas* 'trespass'. Sporadic English forms with *i* are recorded for each of these words (see NED. s.vv. *Sendal*, *Treasure* sb., *Trespass*, sb.).

§ 64 ff. It will be convenient to begin the discussion by giving the normal Welsh representations of three ME. sounds, viz. (1) *au*, (2) *ū*, and (3) *ou*.

(1) ME. *au* (or its later English developments) normally appear as W. *aw* (e.g. *hawg* 'hawk'; *dawns* 'a dance'—§ 61).

(2) There are a number of cases in which the diphthongization of ME. *ū* appears as W. *ow* (e.g. *dowt* 'doubt'—§ 68b).¹

(3) Examples of ME. *ou* in the Welsh loan-words are rare; cf. however, W. *Powls* 'St. Paul's' < ME. *Powlys*, *Poules* (§ 64).²

The diphthongization of ME. *ū* probably followed the course *ū* > *yu* > *ou* > *eu* > *au* and, at one and the same period, earlier and later stages may have existed side by side (cf. the standard and "pseudo-refined" pronunciations of *house* at the present day). Luick considers that *ou* was normal in XVI, *eu* was reached at the beginning of XVII and *au* in the latter half of XVIII (Luick § 483). The Welsh loans must reflect the stage *ou*, or something near it.

In § 68a words with W. *aw* are given and Parry-Williams tentatively suggests that they may reflect forms having an E. sound which had fallen together with the diphthongization of ME. *ū*. The words are:—*fawt* 'vault'; *rhawt* 'a pack, troop, rout' ("rawter: Riotter" < E. *router*, § 20, is also

¹ This diphthong is rare in Welsh; see J. Morris Jones, *A Welsh Grammar* § 33.iii.

² We may accept Parry-Williams' explanation (§ 62) of an occasional W. *ow* in Salesbury corresponding to a ME. *au* (or its developments) instead of a W. *aw* (thus "*fowtus*: Faulty") as due to a Welsh pronunciation (cf. *mowr* for *mawr* 'great' in some Welsh dialects) rather than an English one.

mentioned); *Sawden* 'sultan'; *sawd(u)rio* 'to solder'; *sawdring* 'solder, cement'; *sawdwr* 'soldier'.

Of these examples *rhawt* and *rawter* may owe the *aw* to analogy with the native W. *rhawd* 'company'. The remaining words all show ME. forms with *au* (beside *ou*); see NED. s.vv. *Vault*, sb.¹; *Soldan*; *Solder*, sb.¹; *Solder*, v.; *Soldier*, sb. It seems therefore that the W. forms with *aw* correspond, in the normal way, to ME. forms with *au*. Parry-Williams' tentative explanation is thus to be rejected.

The ME. variation *qu* ~ *au* in such words as the above is to some extent obscure. An identical variation is found in the OFr. etymons. Normally *q̄t* and *ōt* fell together as *ou* in OFr., but in Picard they were kept separate, *q̄t* giving *au*, *ōt* giving *ou*; thus **colaphu* > OFr. *coup*, Picard *caup*; **multu* > OFr. *mout*; Picard *mout*.¹ W. Horn, *Englische Studien* lvi, 287-291, suggests that the ME. variation reflects the French one. This may indeed be true in the case of words such as *vault* (: OFr. *vou(l)te*, *vau(l)te*) or *soldier* (: OFr. *soudier*, *saudier*) where the two English forms are both widespread.² But in the case of other words, where the *qu*-form predominates in English—e.g. *solder* v. and sb. (: OFr. *souder*, *sauder*; *soudure*, *saudure*), *soldan* (: OFr. *soudan*), it is possible that the *au*-forms are merely due to a dialectal variation in English. R. Jordan, *Handbuch der mittlenglischen grammatik* § 105 note, states that in many dialects the first element of ME. *qu* must have acquired an *a*-quality; this specifically in the West Midlands (Gawaine, Audelay, Hereford Documents).

It is clear that the *au* (rather than *qu*) attested in the etymons of the Welsh words discussed above cannot be brought into direct connection with Picard *au*. It is however very reasonable to assume that it reflects the dialectal pronunciation of the West Midlands.

¹ W. Meyer-Lübke, *Historische grammatik der französischen sprache* I § 81.

² In *vault* the *au*-form has become standard.

ON THE DISTRIBUTION OF THE LANGUAGES IN THE OLD EURASIAN REGION

By E. LEWY

I

SURVEYING the linguistic map of Asia and Europe as shown, e.g. in the atlas in P. W. Schmidt's valuable work, *Die Sprachfamilien und Sprachenkreise der Erde*, we observe in this region of the earth four great linguistic units:—

(1) the Indo-European languages—connecting Europe and Asia ;

(2) the Semitic languages—the whole Semito-Hamitic family of languages connecting Asia and Africa ;

(3) the Uralo-Altaiic languages—occupying the northern part of the Eurasian region from the Baltic, the Danube, and the Dardanelles in the West to the Yellow Sea in the East ;

(4) the Indo-Chinese languages—holding the eastern and south-eastern parts of this continent.

The so-called genealogical relationship between the single members of these four units are not established with the same accuracy, e.g. that the Turko-Mongolian languages are related to the Uralian (i.e. the Samoyed plus the Finno-Ugrian) languages, the Manchu-Tungus, and the Japano-Korean languages is not proved by long lists of etymologies, although there are good ones (cf. for the Japanese and the Uralian W. Proehle, *Keleti Szemle* 17.147–83). The linguistic type of these languages, however, is the same ; cf. the books of H. Winkler, and now K. Groenbech, *Der türkische Sprachbau* I, 1936.

Those four big units, genealogical ones to a certain degree, represent certainly well defined, and rather simple, types of linguistic structure:—

- (1) the Indo-European languages the stem-inflecting type ;
- (2) the Semitic languages the root-inflecting type ;
- (3) the Uralo-Altaiic languages the subordinate type ;
- (4) the Indo-Chinese languages the word-isolating type.

These types are described in a satisfactory way in the small book, *Die Haupttypen des Sprachbaus*, written more than thirty years ago by F. N. Finck. I almost wholly agree with this masterly little book, the condensed result of a short life, dedicated to hard and admirable work. I have changed only the term used by Finck to characterize the Chinese language: "wurzel-isolierend," root-isolating, having been convinced by a carefully thought out paper by W. Simon (*TPS* 1937, pp. 99-119), that the elements of the Chinese language are to be called "words", not "roots". Although evident by itself it may be said *expressis verbis* that no catchword covers all the qualities of any language or linguistic unit or type; that there is within every unit a great variety of individual expression, possibilities, and liberties of development and mixture. Those labels, like stem-inflecting, indicate the most striking peculiarities differentiating one type from the other. Finck's book is an objective description, but progressive knowledge might help to change terms. I, generally a faithful follower of this my teacher, proposed to use the term: "flexion-varying" (form-variierend) instead of stem-inflecting, thinking this the most essential feature of the Indo-European group. The "word" in these four types has a different pattern: the word of the fourth, group and type, is an almost unchangeable formation; the word of the third one unites suffixal elements with the stem by phonetic means; the word of the second one changes vowels and consonants inside the "root"; the word of the first one produces the same grammatical effect by different means: *capiam*; *amabo*, *servus*; *femina*. I wonder which feature is most characteristic for the type; from the systematizing point of view Finck's term may be preferable.

II

Looking at the geographical distribution of these four units, we might suggest that they have gained their vast territories fighting against other linguistic units, i.e. against men speaking languages of a different type. This suggestion,

induced by observing the spreading of these groups over the earth's surface, may be confirmed by considering that the frontiers of these groups have continued to advance in some parts of the earth in historic times: in western Europe, e.g. we see the Romans, a people talking an Indo-European language, moving forward against the Iberians, in eastern Europe the Russians against Uralian tribes, in India the Indians against the Dravidian peoples. In a similar way the Semitic and the Uralo-Altai groups may have gained their extension in old times. Unfortunately we do not know the starting points of these four units—which represent types of human civilization. It would be helpful to know their cradles, but in spite of all investigations it is not yet possible to do more than guess at them. For the first, the Indo-European group, we may guess the regions round the Carpathian mountains; for the second, the Semitic, Arabia, and the adjacent parts of Africa; for the third, the Uralo-Altai group the Altai—at least this, Castrén's idea, has not been replaced by a better one. For the fourth, the Indo-Chinese, a connection with the western parts of the region is probable, as we shall see.

III

These four units, so often mentioned, do not cover the whole field. In the highest parts of the continent and on the remotest shores languages are spoken that are not related to these four units. They are spoken in comparatively small districts, and thus look like survivals of once larger units. Some may be the results of immigration from across the sea. Many languages, spoken in India and Further India, belonging to the Austric family of languages established by P. W. Schmidt, the centre of which is among the islands between Asia and Australia presumably, may be languages of immigrants. The Eskimo dialects spoken in the farthest North-East of the Asiatic continent are the obvious result of immigration from America where the languages of the Eskimo seem to have had their home.

IV

The smaller linguistic units I referred to are—

1 the Basque in the western corner of the Pyrenees. The genealogical relationship of this language seems two-sided: to languages spoken in northern Africa, especially the Berber, and to languages spoken in the Caucasus. The type resembles Caucasian languages. So the results of the work of H. Schuchardt and others may be summed up.

2 the tripartite group of the Caucasian languages themselves. People knowing these languages (cf. the useful *Einführung in das Studium der kaukasischen Sprachen* by A. Dirr, 1928) doubted often if their three groups form one unit; cf. however, R. Lafon, *BSL* 29.138. One who is fortunate enough not to have had his judgment biased by too profound a knowledge of this difficult matter, sees more sharply the traits distinguishing these languages from the surrounding ones: (1) the subject of the action is, in connection with different verbs (e.g. transitive/intransitive) or forms of verbs (e.g. present/aorist), marked by different forms of the noun; (2) a mark of the object of the transitive verb is included, "incorporated", into the verbal form; (3) an ending, marking a case of a noun, is sometimes repeated at the end of the following noun—a kind of analepsis. One of these three characteristics found in a language arouses the suspicion of Caucasian relationship, influence, or neighbourhood now or formerly; united, they are the proof of Caucasian identity, as may be understood by the fine description Finck has given in his book of the Georgian (Gruzin) language, pp. 132–149. He was the first who recognized the type represented by the Georgian as a special linguistic type, and so had to coin a new term describing by a catchword the character of the word of these languages. He chose: "gruppen-flektierend", inflecting groups (of elements), indicating by this term that here the inflected words, especially the verbal forms, consist of elements loosely united—which can be repeated—and grouped round a (verbal) root.

Viewing the three groups of the modern Caucasian languages, the southern, the north-western, and the north-eastern, well distinguished from each other, and seeing that they are confined to a small and partly inaccessible region, we may suggest that they are the survivals of languages once spread over a wider territory, all the more as we find many extinct languages, once used in Asia Minor and in the highlands between Asia Minor and Iran, known to us by inscriptions, as the Elamite, Mitannian, Lycian, Chaldee, Sumerian, in relation to the Caucasian groups; cf. the papers and works of F. Bork, "Das Sumerische eine kaukasische Sprache," *OLZ* 1924, 169; *Skizze des Lykischen* 1926; *Altkaukasische Studien I Der Mitannibrief und seine Sprache* 1939. Etruscan may belong to this group, having been brought by sea from Asia Minor, as ancient traditions attest, and as now in modern times is beginning to be believed again.

3 the Burushaski in the mountains of the Pamir, known now by the admirable work of D. L. R. Lorimer. The relation of this language to the Caucasian ones is suggested by some scholars, e.g. by R. Bleichsteiner.

4 the Dravidian languages in southern India and eastern Iran. Relationship of these languages to Caucasian ones was suggested by G. Huesing, *Memnon* 4, 1910, 5; especially with the Mitannian by G. W. Browne, *JAOS* 50, 1930, 273. On the other hand a relation to (some of the) Australian languages has been suggested with good reasons which F. Mueller attempted in vain to refute. These two suggestions—perhaps—do not contradict each other, whereas a relation of the Dravidian languages to the Uralian languages—which several scholars tried to prove—seems to me without any foundation.

5 the languages of the Andaman islands, obviously of the highest importance for the history of mankind, are not known to me at all, so that I cannot give any opinion about their linguistic affinity.

6 the Lati language, spoken in a mountainous region of southern China. Nothing more is known to me about it.

All these languages look, except perhaps the Andamanese, from the geographical point of view like "pushed-backs".

The whole of eastern Siberia is surrounded by small languages, partially made known to students only in recent years by a remarkable book: *Jazyki i pis'mennost' paleo-aziatskix narodov, pod redakciej E. A. Krejnoviča*, 1934, with an interesting linguistic map. The term "paleoasiatic" expresses the conception that the speakers of these languages "represent an older stratum of Asiatic population pushed back to the North", Finck, *Die Sprachstämme des Erdkreises*, p. 65. A close and certain relationship between these languages, however, has never been established. They are—

7 the Yukagir language on the shore of the Arctic Sea between Indigirka and Kolyma, and near the middle course of the Kolyma. The language is now called Odul' as the people call themselves. Its wider extension was proved with the help of the names of the rivers by my dear old friend W. B. Shostakovič, *UJ* 6.81-9.

8 the Chukchee, 9 the Koryak, 10 the Kamchadal languages, now called Luoravetlan, Nymylan, Itel'men, occupy the regions to the east of the Yukagir (Odul') language, the Chukchee peninsula and Kamchatka; they form a linguistic unity.

11 the Eskimo language, now called Yut, and 12 the Aleutic language, now called Unangan, are related to each other and, as mentioned, probably introduced from the East.

13 the Gilyak language, now called Nixv, spoken in the lower valley of the Amur and on the island of Sachalin.

14 the Ainu language, spoken on Sakhalin and some of the Japanese islands. It has been asserted that this language is related to the Gilyak language, Finck, *Sprachstämme des Erdkreises*, p. 66. So far as I can see, this assertion lacks proof, cf. K. Bouda, *ZDMG* 91.226. Some have searched for relationship of the Ainu in a south-easterly direction, O. Gjerdman, *Le Monde Oriental* 20, 1926, 29-84, and it might be found near New Guinea.

15 the last language, mentioned in *Jazyki i pis'mennost'* . . .

is the language of the Yenissei-Ostyak people, now called more aptly Ket. It is spoken, not in the eastern part of Siberia, but near the middle course of the Yenissei. That its extension was much wider, W. B. Shostakovič has shown again as he did in the case of the Yukagir in the paper mentioned above. A hundred years ago a language closely related to the Ket existed, that of the Kott, their neighbours. Now this seems to have vanished.

V

A. Trombetti was the first to point out that the language of the Ket was a link between the languages of the Far East, the Indo-Chinese group, and those of the Caucasus, cf. *Elementi di Glottologia* 191, 466. Our knowledge of this language is still very limited, and we urgently need a collection of original texts. An analysis of the matter collected by the great Castrén, *UJ* 13, 1933, 291-309, showed the vocabulary to be related to the Indo-Chinese whereas the structure of the verb, with prepositional prefixes, marks of the object (these marks of the object were discovered, after Castrén, by K. Donner, *JSFOu* 44, 28, and N. K. Karger, *Pamjati M. A. Kastrena k 75-letiju dnja smerti*, 1927, 102) and marks of the subject (sometimes repeated), shows relations to the Caucasian type; cf. H. Findeisen, *Sinica* 1938, 52, esp. 61-2. To ignore this language in a survey of the languages of the world, the link between two important centres of human civilization, the relations of which were stressed by H. Winkler, *Memnon* 7, 1903, pg. 20, before, hardly reveals a deep insight into the problems of human or linguistic history.

We are now prepared to find in eastern Siberia traces of relationship with the West, as we found them in the case of the Caucasian-Ket-Indo-Chinese languages.

The Yukagir language, 7, has a vocabulary that is sometimes reminiscent of the Finno-Ugrian, *UJ* 8, 1928, 287. The structure, as described in *Jazyki . . .*, though not very clearly, resembles by the existence of a determined declension and

an objective conjugation, besides a simple declension and a subjective conjugation, the Mordvin language. This is the language of the Finno-Ugrian group which by deviations from the type common to all the other Finno-Ugrian languages tends towards the south-eastern part of European Russia, i.e. the Caucasus; cf. *MSFOu* 67, 241 note. That a person who has a knowledge of the Caucasian languages was directly reminded of them by the structure of the Yukagir, K. Bouda, *ZDMG* 91, 223, might confirm my impression concerning its linguistic type.

The structure of the Chukchee-Koryak-Kamchadal group, 8, 9, 10 (cf. W. Bogoraz, *Handbook of American Indian Languages* II 691-903) resembles by the incorporation of a nominal object—not only of pronominal elements—into the verbal forms, and the differentiation of transitive and intransitive verbs languages of the Caucasian group, sometimes especially the Abkhaz language of the north-western branch, described by G. Deeters in a fine paper, *Nachr. d. Gesellschaft d. Wissensch. Goettingen, Phil-histKl*, 1931.

If we are on the right track, we might suggest three connections of the East to the West which we may represent in a schematic way:—

(Finno-Ugrian :)	Mordvin	c	Yukagir
		a	
		u	Chukchee-
		c	Koryak-
		a	Kamchadal
		s	
		i	Ket Indo-Chinese
Basque	a		
		n	languages

Although not inclined to stress the importance of similar single words in the vocabularies of languages, I note that in Chukchee *órgoor*, plural *orwit* means 'sledge', "sani", Bogoraz, *Luoravellansko-russkij slovarj*, 1937, 109, and in Basque *orga* 'carro, vagón'; and in Chukchee *wírguur* 'ernik, polzučaja berëza', 'shrub, creeping birchtree', Bogoraz, p. 163, and in Basque *urki* 'abedul'.

VI

The remaining paleoasiatic language, the Gilyak, 13, does not remind us at all of any of the Caucasian languages, nor of the Uralo-Altaić—so far as I see. It seems completely different in type. Its most remarkable feature is the grammatical value of the changes of the consonants beginning the word. So, to denote the type by a catchword, I should propose to call it: initial-inflecting, “anlaut-flektierend.” Cf. the good description of the language in *Jazyki i pis'mennost'* . . . 181-222, by E. A. Krejnovič, and *Fonetika nivxskogo (gilyackogo) jazyka*, 1937, by the same author. We do not know anything corresponding to it in Siberia. But very far away, in the outmost West of the Eurasian continent we find that the Celtic languages show the same evidence—though they belong “genealogically” to the Indo-European group. If the theory be right that the “paleoasiatic” languages are the remains of older pushed back layers of Eurasiatic populations, the Gilyak and the Celtic might be of the oldest layers, as the correspondences are found so far away from each other, in the farthest corners of the continent in the West and in the East.

THE VALUE OF SPELLING AS EVIDENCE

[Read at the Anniversary Meeting of the Philological Society, 15th May, 1943]

By C. L. WRENN

ALMOST exactly 62 years ago, the late Sir James Murray, pioneer founder of the Society's great Dictionary, devoted his presidential address at the Anniversary Meeting to English spelling: and in the discussion which followed his discourse there took part Henry Sweet, F. J. Furnivall, and A. J. Ellis among others, at a gathering which represented probably the best of English philology at a time which was something like the golden age of the subject. It is a special pleasure to me to be privileged to address this Anniversary Meeting on a kindred subject. These great men were among "the giants that were before the flood": and one of my objects in choosing spelling as my subject this afternoon is to try to revive the Society's interest—and through it that of a wider public—in a matter which those great scholars regarded as of paramount importance, and one which in the last quarter of the nineteenth century was a main preoccupation of the Philological Society. Apart from the not always strictly scientific activities of the Simplified Spelling Society—a movement which was perhaps the one positive if indirect result of the society's work on spelling—the subject has of late been relatively neglected by those best qualified to deal with it: and it is a cause of gratification to me that, coincident with my address to-day, Sir William Craigie, who is so honourable an exception to the last remark, has been elected to the presidential chair of the Society.

In January, 1881, the Philological Society, following the recommendations of Murray as modified and definitely set out in a report from a committee of its members, adopted proposals which it commended to the public, for the "partial correction" of English spelling.¹ Apart from the definite

¹ *Philological Society Transactions* 1880–81, which also contains Murray's presidential address of 21st May, 1880, referred to above.

formation of the *Society for Simplified Spelling*, this weighty series of recommendations, though supported by leading lexicographers, orthoepists and phoneticians of the time, seems to have achieved no result, and our spelling to-day shows scarcely a trace of change despite the more rational trend of spelling in the United States. Yet the state of English spelling which Murray and the Society's experts so convincingly analysed in 1880 and 1881 presents two characteristics which are, I think, profoundly influencing our attitude towards the language. On the one hand our spelling seems to be static, but on the other it tends to become ideographic—or rather the written "words" tend to become group-symbols of group-sounds, that is a group of letters symbolizes collectively a group of noises expressive of an idea or thing with no consciousness of any relationship between individual letter-symbol and individual noise. Moreover, as Henry Bradley pointed out in his important paper *On the Relation between Spoken and Written English*,¹ there is an ever increasing number of "book-words" in the language, in which the group of letter-symbols represents an idea or concept directly, with little if any consciousness of sound. Indeed there are words, like scientific technical terms, for instance, which positively have no clear pronunciation, since they do not exist in any speech-tradition, but only as written symbols directly apprehensible without the medium of sound. How ideographic our spelling tends to become, even among the quite unlearned, may be illustrated by the following anecdote told to me by an acquaintance. A mother was using, to teach a little girl to read, a primer which sought to teach the art of reading to small children by means of pictures. The child made excellent progress. But one day when asked to demonstrate her achievement, the little girl read out with confidence "BOY boy, DOG dog, CAT pussy".²

Now this static quality of our written language to which attention has been so often drawn, tends to produce—not

¹ *Collected Papers of Henry Bradley*, edited by Robert Bridges.

² Cf. *Reading without Tears*, Longmans, 1910.

only in the minds of ordinary people but also of professional students of the language—an undue emphasis upon, and an exaggerated belief in, the significance of the evidential value of spelling; for the more we take a strictly static spelling for granted, the more markedly shall we become aware of every divagation from the norm. The other characteristic of our spelling which I have mentioned, its representation of a group of sounds by a collectively apprehended group of symbols, has brought about a growing habit—even among philologists—of thinking of symbols divorced from sounds. Often one reads accounts of “sound-changes” which suggest that the writers have merely been conscious of changes of symbols: and this danger of exaggerated symbol-consciousness is especially great to students using books purporting to give the history of primitive periods in language-development. I have even heard teachers inform students of Old English sound-changes that \bar{o} becomes \bar{e} (pronounced [i:]) by \bar{i} (pronounced as the current diphthong [ai]) mutation. There has also of late been an increase in the use by writers on linguistic subjects of those “Zoomorphic terms” against which Murray so vigorously protested, such as “letters creeping in” or “parasitic consonants appearing”.

In the year 1879 the *Allgemeiner Verein für vereinfachte deutsche Rechtschreibung* petitioned the Reichstag for “the periodic adjustment of any discrepancy between pronunciation and spelling whenever such occur, and are noticed”. This was a pioneer declaration. Such readjustments have been in recent times in Europe only partial, as, for example, the revision of Russian spelling by the Soviet Government. But whereas such changes have, in Continental languages, been deliberate and the result of authoritative action, with English they have been—in recent as in earlier times—haphazard, unconscious or gradual. Hence the unrivalled heterogeneity, and what I might call the “diachronicness” of our orthography, which makes it the joy of the questing philologist, and imparts to it a kind of amber quality of fascinating interest to the historian.

Not long after the almost still-born effort of the Philological Society to improve our spelling, misspellings were accepted as decisive criteria in a famous criminal trial¹; and a glance at recent editions of Old and Middle English texts and histories of the language will show that, though the authors almost invariably pay lip-service to the belief that spelling as a guide to pronunciation should only be accepted as evidence when corroborated by other kinds of evidence, yet orthography is increasingly stressed by philologists implicitly in matters of the establishment of dialect, date, authorship, etc., as if it were in itself sufficiently decisive evidence. The "occasional" spelling has indeed almost dominated important parts of such works as Zachrisson's *Pronunciation of English Vowels, 1400 to 1700* and Professor Wyld's *A History of Modern Colloquial English*; and a very considerable number of authors and teachers have been permanently influenced by their implicit tendency to exalt the occasional spelling in all kinds of historical investigations of our language.

With the foregoing considerations in mind, it is the purpose of this address to re-examine some aspects of spelling as an aid to the philologist, especially in relation to matters of pronunciation and the dating of documents.

I

First I take some clear instances from *Beowulf*, in which there seems to be no doubt at all of the value of orthography as a linguistic criterion. In l. 2668 the form *fullæstu* reminds us of the possibility of Western influence on the late tenth century scribe of the extant MS., since this 1st person singular of the present indicative in *-u* is the regular usage in the Vespasian Psalter Gloss for which a West Midland ultimate origin seems probable. This use of an occasional Western form is what might be expected as a tendency in nearly all late Old English MSS., since the incursions of the Norsemen had

¹ Pigott's misspellings *hesitency* and *likelehood* at the special Commission's investigation of charges against Parnell, in the alleged facsimile letter reproduced in *The Times* in 1887 and rejected as a forgery in 1889.

concentrated the Christian culture and the art of copying especially into the West. But when we find in the same MS. a number of instances of apparent confusion between *d* and *ð*, the view that the text has at some time passed through the hands of a Western copyist is greatly strengthened because of the frequency of this type of error in the Vespasian Psalter Gloss. Cf. the writing of *hador* for *haðor* in l. 414 and the similar confusion of *ad* with *að* in 1107—though these are not yet beyond dispute. But in l. 1278 all will agree that the MS. reading *peod* must go back to a form of *deað*, probably the Northumbrian *deoð* which might early in the eighth century have been written *deod*. This confusion of *d* and *ð* is entirely cleared up in l. 1375, where *drysmap*, though accepted, I think, in all the glossaries of editions, must be an error for *þrysmap* or *ðrysmap* in view of the noun *þrosm*. Now this confusion of *d* and *ð* is, as has been said above, a feature of the probably Western Vespasian Psalter Gloss once more. But such confusions suggest also that the MS. of *Beowulf* must ultimately look back to an archetype of the earlier eighth century: for it was not till late in this century that the new symbol *ð* came into use, and it would naturally be soon after that that a copyist, turning the older *d* (used earlier as a voiced spirant as well as a stop) into *ð*, would make the confusion.¹ But this *d* *ð* confusion would seem to imply an archetypal MS. in which the older practice of *d* for the later *ð* was found. The form *wundini* in l. 1382 of *Beowulf* clearly is an early eighth century one; and this solitary survival in the late tenth century *Beowulf* MS. of the early instrumental ending (not found after the middle of the eighth century) confirms what the *d* *ð* spellings pointed to, namely an early eighth century *Beowulf* actually in writing. Here, then, the spelling would seem to play a valuable part in reconstructing the history of the text of *Beowulf*. But it is to be noted that it does not stand alone, but receives important corroborative aid.

¹ Cf. *Exodus* l. 40, where the MS. *dryrmyde* = *drysmýde* (*s* and *r* confusion) = the normal *þrysmode*.

II

While the argument from spelling in the foregoing illustrations from *Beowulf* seems fairly clear and conclusive, it has yet been but little used by the experts. But in the Runic inscription on the Ruthwell Cross to which I now turn, the meaning of the spellings has generally of late been regarded by scholars as clearly discernible, though the orthography is in fact—so it seems to me—quite indecisive as evidence, because other and important evidences point in quite different directions.

In general the Ruthwell Cross inscription is characterized by the survival of the primitive O.E. *i* and *æ* which were both replaced by *e* about the middle of the eighth century: and these spellings, such as in *hinæ*, *fusæ*, *appilæ* and *bistemid*, supported by a number of apparently early forms, are now generally accepted as evidence for a date early in the eighth century. Inconsistencies in spelling such as *walde*, with final *e* instead of *æ*, might not be serious obstacles to this view. But in his *Northumbrian Crosses of the Pre-Norman Age*, W. G. Collingwood, arguing as one entirely unacquainted with philological technical matters, showed almost overwhelming evidence for a date at the very end of the eighth century. Basing himself entirely on the artistic types exhibited by the Bewcastle column (with whose school of craftsmanship the Ruthwell Cross must be very closely connected) and that of other Northumbrian monuments whose art is obviously of earlier design, he proves by his "typological theory" that the Ruthwell inscription (that is the earlier portion of it) cannot, because of the type of art displayed, be earlier than late in the eighth century: and he adds plausible historical background to his date for the inscription at the close of the century.¹ One would hesitate to differ from so outstanding an archæologist and historian of art as the late W. G. Collingwood. Yet in the dating of the Ruthwell Cross, it would seem that philology points one way and art another—ways which are well-nigh a century apart.

¹ *Vide especially op. cit.* pp. 112 *et seq.*

In these circumstances, I think, we should look for a view of all the facts of spelling of the inscription which could be reconciled to the typological results of Collingwood, in preference to any which is based on either the purely linguistic or the purely artistic evidence. I have already mentioned the failure of *walde* in the inscription to retain the primitive *æ*, which suggests a later type of spelling than is found in the monument as a whole. The notorious form *rodi*, in *Krist wæs on rodi*, also shows an ending which ought not to be there according to what is known of English linguistic history: for the feminine noun *rōd* here has the primitive instrumental inflexion in *-i*, which is proper to nouns of the *a*-declension masculine and neuter, but could not occur in nouns of the *ō*-declension which would have *æ* in the early eighth century. Attempts to explain this oddity as the working of analogy (the last infirmity of busy philologists) are unconvincing¹: for such an extraordinary working of analogy between a feminine *ō*-stem noun and one of the *a*-declension would be hard to parallel. The forms *maegsibbi* (a gloss above the Latin *affectui*) in the Epinal Gloss of somewhere in the eighth century, and *romæcæstri* in the Franks Casket (supposed to be of the earliest eighth century) have been cited in support of the explanation from analogy by Dickins and Ross (*loc. cit.*): but the *-i* of *maegsibbi* seems obviously to be a mere dittographing of the *i* of *affectui*, and the spellings of the Franks Casket are as a whole evidently careless, inconsistent, or corrupt. Furthermore, there is a strange inconsistency (if an early eighth century date is accepted for the Ruthwell Cross inscription) between the forms *rodi* and *blodæ*. For, if the *-i*-ending of the instrumental is assumed to have survived in the language of this text—analogically or otherwise—in *rodi*, it is amazing that the neuter *a*-stem noun *blōd*, in the expression *mip blodæ (b)istemi(d)*, should show, not the expected instrumental *-i*-ending after *mip*, but *æ*, which would be appropriate rather if *blōd* had been a feminine

¹ Cf. *The Dream of the Rood* edited by Bruce Dickins and A. S. C. Ross, London 1935: p. 11.

ō-stem noun. There is, besides, the doubtful form (*i*)*dægigægæf*, which, if considered as the remains of the sentence *wæpidægiscæft* (cf. *weop eal gesceaft* of l. 55 of the later Vercelli version), would be extraordinarily archaic.¹ In view of these and other seeming contradictions and anomalies in the spellings and forms of the Ruthwell Cross inscription, I suggest as a hypothesis, that, as Collingwood typologically demonstrates on historical artistic grounds that the inscription belongs to the close of the eighth century, we accept this date and reconsider the linguistic phenomena on that assumption.

Now it is well known that inscriptions for the dead tend to use archaic forms of language—a tendency found in the ancient as well as in the modern world. In runic inscriptions one might compare the survival of the *ēoh*-rune (apparently with the value of *h*) in the Urswick in Furness inscription of *circa* 900 in the proper name *Torhtred* (which appears in the dative as *Torohtredæ*)²: and we know from the late *fuparc* of MS. St. John's College Oxford 17 (*circa* 1110) that this *ēoh*-rune survived the Norman conquest as a symbol for *h*,³ though originally it seems to have represented the labio-spirant consonant *hw*. This *ēoh*-rune is employed in the Ruthwell Cross inscription for the *h* in *almehttig*. I suggest, then, that at the end of the eighth century someone was required to make an inscription which would have the appearance of a considerably earlier date, that is, it was deliberately an attempt at the end of the eighth century to imitate the appearance of the language of the beginning of that century. But the archaizer made mistakes and inconsistencies, as, for instance, the supposition that *-i* and *-æ* were employable indifferently as dative or instrumental endings, which caused him to write *rodi* for *rodæ* and *blodæ* for the correct form *blodi*. Similarly, he forgot to use the archaic *æ* in *walde*, but put in here the form of his own times. The inscrip-

¹ Cf. J. L. N. O'Loughlin in *Times Literary Supplement* for 1931, p. 648.

² For the Urswick inscription well reproduced *vide* Collingwood, *op. cit.*, p. 53, fig. 66.

³ C. L. Wrenn: *Late Old English Rune-names*, in *Medium Ævum* I., pp. 24 *et. seq.*, especially the *Fuparc* on p. 32.

tion was to be connected with the memory of the considerably earlier Northumbrian king Alcfrith, and hence the *deliberate* archaizing added to the natural tendency of most inscriptions to introduce older or obsolescent forms of language. On this hypothesis I believe all the spellings and forms fall into place. We are looking at a late eighth century inscription carved in an early eighth century spelling, with the inevitable inconsistencies and errors: and thus both the linguistic and the artistic evidence are seen to be acceptable and mutually consistent.

Here, then, the study of the spelling, when not sufficiently related to other kinds of evidence, led us astray. Yet it had value if considered in the light of all the evidence.

III

One of the most frequent of the questionable uses of spelling made by philologists and historians of to-day is that of charters and similar "original" documents. Consider, for a moment, the case of Portisham in Dorset. It is generally agreed that in place-names the Old English spelling *hamm* points to derivation from *hamm* = meadow, and *ham* to an original *hām* farmhouse or homestead. Portisham, then, is set down by all the authorities as originally meaning the *hamm* or meadow of one Port (possibly the Port of the Anglo-Saxon Chronicle who landed at Portsmouth).¹ For in a charter of Canute of the year 1024, the King gives to one Orcy land "eo in loco ubi ruricole terre illius nomen indidere æt *porteshamme*."² The spelling of Domesday Book, *Porteshā* (= *Portesham*) need not contradict this view, though confusion between *hamm* and *hām*, even in later Anglo-Saxon charters, is by no means unknown. But it happens that Portisham was the home of the Nicholas of Guildford who acted as judge in the poetical debate recounted in the early Middle English poem *The Owl*

¹ Vide *The Concise Oxford Dictionary of English Place-names* of Ekwall, and Anton Fägersten's *The Place-names of Dorset*, Uppsala 1933. But the latter authority does add the words (p. 248) "if the above charter-form can be trusted".

² Vide no. 741 in Kemble's *Codex Diplomaticus Ævi Saxonici*, vol. IV.

and the Nightingale: and in the dialect of both its extant MSS. the Western rounding of the vowel *a* to *o* before a nasal consonant in words like *man*, is regular. But the element *hamm* is never rounded to *homm* as a second element in place-names in *any* dialect where such rounding would be otherwise normal. The form *Porteshom*, therefore, which occurs at l. 1752 in both MSS. of *The Owl and the Nightingale*, should not show its second element *hom* as the equivalent of *hamm*. On looking more closely at the example from *The Owl and the Nightingale*, however, we notice that it rhymes with *hom* in the sense of "home", with a long slack *ō* (O.E. *hām*). This rhyme, in a poem which in general shows good craftsmanship in its rhyming, can, I think, only mean that the *-hom* of *Porteshom* is in fact to be derived from the Old English *hām* = "homestead" and not from *hamm* = "meadow". The spelling, then, of an early and well authenticated charter (the original document is in Lord Ilchester's muniment room at Melbury), has entirely misled the experts, simply because they have not considered it in conjunction with other kinds of evidence, which in this example happen to point conclusively in another direction.

Here I would utter a strong *caveat* (as others have done before me) against this tendency to use charters exclusively as evidence, both in place-names and for the fixing of early pronunciation. Of the large number of printed documents purporting to reproduce diplomatic texts, only a relatively small quantity can be definitely authenticated as from originals in contemporary handwriting; and again and again we find the historian or the philologist treating an *inspeximus*, written perhaps a couple of centuries after the original charter, as if it were itself the actual document, in every item of spelling, for which the law allowed it to be accepted. Moreover, how often is the charter found in the printed book (not to mention mistakes of its editor) a mere welter of different dialects and spellings. There is the likelihood—especially in early Middle English MSS.—of confusion in orthography caused by (a) foreign scribes insufficiently familiar with English

usages, (b) a scribe educated in a spelling-tradition other than that of the text he is copying or the practice of the person dictating to him, (c) scribes from different dialect-areas replacing what they copy or hear from dictation by representations of their own more familiar pronunciation, (d) men merely writing their version of a lost charter from their own memory, and (e) clerks of such strongly traditional centres as the royal chancellery replacing forms they copy or hear by those of the established traditional orthography of their calling. What a welter, for instance, of incongruous forms of spellings is the famous *Codex Wintoniensis*, part of which is printed in Kemble's *Codex Diplomaticus Ævi Saxonici* Vol. VI!¹ The cartulary of Chertsey Abbey would be a dangerous guide to the early Surrey dialect.² For it not only shows many mutually inconsistent types of dialect and spelling, but seems (at least in parts) to have been transcribed by a clerk from somewhere in the West of England. Unless we could be sure that a document in this collection had been written at the date on its face by a scribe who was a native of Chertsey living for long in that area and uninfluenced by other traditions of orthography, we could not take its spellings *in themselves* as evidence for the language of Chertsey at a given date. There is, too, the possibility of endorsements or additions to charters made at a later date than the original document or by writers of other linguistic and orthographic character than those of the archetypal scribe: and this again has misled philologists at times. The Paston Letters, with the added errors of the modern editor and printer, have often been used by historians of our language and spelling as if in themselves they were first-class evidence. But Miss Kilboom has shown³ that, for instance, Margaret Paston (whose spellings had been widely cited as evidence for contemporary pronunciation) nearly always employed a secretary; and she, probably,

¹ *Codex Wintoniensis* is now MS. Add. 15350 in the British Museum.

² *The Cartulary of Chertsey Abbey*, published for the Surrey Record Society: 1915 and 1931.

³ Asta Kilboom: *Contributions to the History of Fifteenth-century English*. Uppsala, 1926.

was a lady of East Anglia with some local characteristics of pronunciation, dictating to a scribe who came from a different area whose ear for the finer points of pronunciation was not good. One may compare, as an extreme instance of errors arising from dictation of this kind, the famous "Crimean Gothic", which rests on no other foundation than that of a hastily written list of some hundred words which Busbecq thought he heard from two men who had been in the Crimea, neither of whom was a native speaker of the alleged Gothic: and Busbecq seems to have had a poor ear for sounds of foreign tongues and to have had no clear idea of a method of phonetic transcription. Only through a coating of Low German re-formations and analogies—besides all kinds of other errors in hearing and transcribing—can the persevering philologist penetrate to the tiny modicum of Gothic which undoubtedly lies concealed in Busbecq's word-list. Moreover, Busbecq has been unfortunate in his printers.

Place-names have been a fruitful field of error through spellings producing false analogical forms or those based on what are sometimes called "folk-etymologies". The Coryates, a little cutting (O.E. *corf geat*) through the ridge of hills above Portisham, in Dorset, which has formed part of the parish boundary since the reign of Canute, has constantly been confused with Corfe Castle, some 22 miles away from it, because of doubtful assumptions based on spelling. The later MSS. of the Anglo-Saxon Chronicle report King Edward the Martyr as having been slain *æt corfes geate*. Now this was probably The Coryates, which is noted as part of the boundary of Canute's gift of land to Orcy in 1024 at Portisham already cited, in the words *swa on corf getes westran cotan*. The name may mean "the *geat* or entrance to the *corf* or cutting", and The Coryates seems a likely place for an ambush such as befell the young king. But the Anglo-Norman chroniclers and others, being familiar with the existence of Corfe Castle with its fortress, identified the *corfes geat* of the Chronicle with the gate of Corfe, i.e. its castle gate: and hence the murdered king has generally been unquestioningly regarded as having been

killed at Corfe Castle. In Durham is a little place which was once the summer retreat of the monks and was called by them *beau repaire*: but the second *e* of *repaire* was misread as a *c*, and then later readers of documents in which the word occurred (usually written as one word *beaurepayrc* = *beau repaire*), interpreted it by further analogy and confusion as *Bear Park*, the name it now bears. I remember hearing a local tradition in the neighbourhood that *Bear Park* was so named because of the bear-baiting practised there in Queen Elizabeth's days! ¹

We must, then, before using the orthography of a document as evidence, be sure that we know that its scribe is likely to be a reliable witness. We must also compare it fully with all the available evidences of other kinds.

IV

The above reflexions lead me to speak of that small yet most interesting and sometimes valuable group of the philologist's illegitimate children, ghost-words. I use this term to describe those forms or words which begin by having no other existence than that begotten in the mind of scribe, compositor, editor, or lexicographer, but which later come to lead a life of their own in the language.

Both MSS. of *The Owl and the Nightingale* have the word *atprenche* in l. 248—a mistake for *atwrenche* made in the lost text which lies between these MSS. and the archetypal text, through the common early Middle English confusion of the runic symbol *wynn* (= *w*) and *p*. This *atprenche* occurs again at l. 814; and in both passages the correct form *atwrenche* (meaning "to outdo in trickery" or "to escape by wiles") makes excellent sense. Yet editors have, as it were, sought to "prink and prank out" an etymology for this ghost-word *atprenche*, which has thus come to lead a continued, if precarious life in learned works. But the expected *atwrenchen* (in the forms *etwrenchen* and *edwrenchen*) had occurred in the Bodley MS. 34 version of the early thirteenth-century life of S.

¹ The name occurs as *beau repayre* in the *Feodarium Prioratus Dunelmensis*, published as No. 58 in the Surtees Society's series.

Margaret, and the *Oxford English Dictionary* had rightly cited the example in *The Owl and the Nightingale* as *atwrenche*: and further, the meaning is confirmed by a parallel passage in the British Museum MS. Royal 17 A XXVII of the same life of St. Margaret. For in one place this MS. reads *etsterten* for the *etwrenchen* of the other text.¹ The name *wen* for the Runic symbol *wynn* has survived apparently longer than the expected *win* (from *wynn*) into early Middle English, but naturally retains in the MSS. of Kentish and South-Eastern origin the form *wen*. Scribes of probably foreign origin practise the unfamiliar Saxon symbol for *w* (along with *ƿ* and *ð* and *Ʒ*) before beginning their task for the day in such texts as the Digby version of the *Poema Morale* and the Maidstone MS. of the *Proverbs of Alfred*; and they write the sound they hear around them in the area of Kent and the South-East, as *wen*. But this probably only dialectal form *wen*, from the South-East of England, has become the accepted name for *wynn* in most text-books.²

Chatterton's romantic forms, such as *smethe* (to rhyme with *ethe*) meaning *smoke*, and *ryne* (to rhyme with *twyne*) meaning *run*, have been condemned as mere errors of ignorance or deliberate fabrications to get visual rhymes by the young poet. But in many a fifteenth-century MS. *c* and *t* are scarcely to be distinguished or have been miswritten the one for the other; and Chatterton's *smethe* is perhaps a correct copy of a MS. (or early printed text) which wrongly had this form for the ordinary M.E. form *smeche*. Similarly, *ryne* is a quite common spelling in the fifteenth century for the Northern form *rin* = "run", with the final *e* as a mere graphic flourish: and Chatterton has merely used what he found. But his attitude to spelling is romantic, in that he is quite indifferent to pronunciation or proper locality or date in choosing his forms, so long as they please his eye and suggest some sort of old-world associations.

¹ Cf. *Seinte Marherete*, ed. for the Early English Text Society by Frances M. Mack, 1934: pp. 32/5 and 33/3, 36/4 and 37/4.

² Cf. *Medium Ævum* I., pp. 24 et seq.

But there are some good and established gifts to our literary vocabulary due to error in orthography producing ghost-words. Lovers of our language would be most unwilling to lose the originally falsely spelled and misunderstood *derring-do* which Spenser first gave to our language through his misunderstanding a misprinted passage in Lydgate based on Chaucer's *Troilus and Criseyde*. Scott's "deeds of derring-do" has extended this word of Spenser's into prose.¹ Many, again, would not willingly give up what is probably the ghost-word *muing* in the famous passage in Milton's *Areopagitica* describing our nation as "an Eagle muing her mighty youth"; though even the O.E.D. has to admit uncertainty as to its exact meaning. In an article in *Modern Language Notes* convincing reasons have been given for regarding this *muing*, which has secured for itself an honoured place in English literature through Milton's "purple passage", as in fact a printer's error for *newing* = *renewing*. But if Milton merely wrote "*newing* her mighty youth" (an almost traditional expression), then all the undoubted æsthetic appeal of the phrase is gone.²

A mere compositor is said to have been responsible for giving us the key-word in the well known and admired description of Virgil by Tennyson :—

" All the charms of all the Muses
Often flowering in one lonely line."

What the poet had written and sent to press was *lovely*, not *lonely*, which latter word seems at first to have been entirely due to the misreading by the compositor of the *v* of Tennyson's inept and conventional *lovely* as an *n*, thus producing the so apt and felicitous *lonely*.

By contrast with this last example of accidental spelling producing valuable results, compare the ghost-word *adventine*, now happily laid by the O.E.D., which Dr. Johnson listed in

¹ *S.v.* *The Oxford English Dictionary* for the details.

² Vol. XXXII of 1917, R. S. Loomis : *A Note on Areopagitica*. But cf. G. Udny Yule in *Review of English Studies* of January and October, 1943.

his *Dictionary* from either a misreading of the *u* of *adventive* in Bacon's *Advancement of Learning* or a misprinted copy of this work in which the *u* appeared as *n* (a particularly common error). This little ghost has neither interest nor importance.

V

From ghost-words I pass to the related matter of "occasional" spellings in their begetting of what might be called "ghost-pronunciations" in the minds of philologists: and these find their place in histories of the language and in the establishing by editors of the dialectal characteristics of texts. Probably the most fruitful source of these "ghost-pronunciations" is the failure to distinguish between the accidents of scribal practice and spellings which may have phonetic or phonological significance. Thus, for example, in *Beowulf* l. 516 occurs the phrase *weol wintrys wylm*: and the learned have offered explanations of this genitive singular in *ys*. Yet it seems clear that the *y* of *wintrys* is merely a ditto-graphic anticipation of that of *wylm*—a palæographic accident which has nothing whatever to do with grammar or pronunciation. Similarly, an isolated spelling *siche* for the normal *seche* = "to seek" in the later Otho MS. of Lazamon's *Brut* has caused conjecture that the raising of [ē] to [ī] usually thought of as occurring in the fifteenth century, may already have occurred in some area, so that the Otho scribe of the late thirteenth century inadvertently substituted his natural pronunciation for the traditional spelling *seche*. But when we observe several *i*'s near this form *siche* (for which the earlier Caligula text has *seche*), we shall probably prefer to assume once more a mere palæographical accident of no linguistic significance whatever. I would plead strongly for far more consideration of the palæographical factors in relation to spelling than they have generally hitherto received.

Related to this matter of "ghost-pronunciations" is that of imaginary grammatical peculiarities which are, in fact, the result of careless or illiterate spelling. In the Exeter Book of the end of the tenth century, the scribe of *The Seafarer*

wrote in l. 48 the clause *bearwas blostmum nimað*, and commentators have often discussed this very strange dative plural in *blostmum* governed by the verb *nimað*. But it is a fact, I believe, that by the tenth century the unstressed vowels *a*, *e*, *o* and *u* had all been levelled in final syllables in Old English to a *schwa* [ə], and that the final *m* in the unstressed position had come to be sounded as *n*. Hence *blostmum* (dat.) and the expected *blostman* (acc.) would sound to a scribe who was writing from dictation exactly alike. He would only distinguish between the endings *-um* and *-an* when consciously following the traditional spelling; and in a moment of inadvertance, for him the by now purely artificial distinction would be lost. One may compare the phrase of *þæm hatum bæðe* in Ælfric's homily on the Assumption of St. John, where traditional orthography and the rules of grammar would seem to have required the weak form of the adjective *hatan* after the definite article *þæm*.

VI

There is, indeed, a "philological scribe" just as there used to be the "economic man"—a scribe whose every vagary is a linguistic fact which can be used as evidence, whose every orthographic divagation from the expected has phonetic or phonological significance. It is against this "philological scribe" that I would protest that he is so often only a ghost. How many of the spellings of what we call in common parlance an "illiterate person" have really anything to do with his pronunciations? So many of them are, I think, rather to be explained by all kinds of palæographical, psychological, mechanical, or associational factors. I have already given some instances of what I have in mind, and I now add one or two more illustrations. Sir John Paston's spelling (found a number of times) *trought = truth*, may suggest that in his pronunciation the *gh* of words like *through* was more or less silent, since it seems that by association with such words as *through* he introduced the *gh* into *trought*. But it would be absurd to argue that he sounded as a *t* the voiceless spirant

in *truth* merely because he writes *t* instead of *th*. For we have to reckon with the common practice (ultimately derived from the mediæval Latin habit of using *t* and *th* indifferently for *t*, which survives in a spelling of the proper name *Anthony*) of using *t* and *th* interchangeably for both the sound of *t* and the voiceless spirant. An interesting and amusing example of how the experts may fall into error through accepting a scribal or printer's spelling as having value for pronunciation in itself without regard to other kinds of evidence, is furnished by a passage in Shakespeare's *Hamlet*. In Act i, sc. 1, l. 112, occurs the line

A Mote it is to trouble the Mindes eye.

Here the First Folio and the later Quartos 5 and 6 have *Mote*, and the reference is obviously to the Scriptural text of the mote and the beam.¹ But the Second Quarto, followed by the third and fourth, reads *Moth* instead of *Mote*, with the common spelling of *th* for *t*. Long ago Dowden, in his edition of the play, rightly dismissed this *Moth* as "an obsolete spelling of *Mote*": yet recent scholarship of the "bibliographical" school, would regard *Moth* as representing the word moth (the insect), and Mr. Ridley in *The Temple Shakespeare*, for instance, would imply that Shakespeare intended a *moth* to trouble the mind's eye. Here, then, isolated regard for spelling has led the modern commentators into what I take to be a false and un-Shakespearean mishandling of a characteristic passage.

In the notorious crux of *Hamlet* 1, 2, 129

O, that this too too solid flesh would melt,

I think that, in considering the rival claims of the Quartos' *sallied*, the later conjecture *sullied* and the First Folio's *solid*, one should bear in mind not merely spellings, but the known Elizabethan pronunciation sometimes of *o* as *a*: so that *solid* might be pronounced as *salid*. Spenser rhymes *plot* both as *plot* and *plat*, Elizabeth herself wrote *stop* as *stap*, and Shakespeare rhymed *dally* with *folly*, etc., etc.²

One may be tempted to suspect that the "philological

¹ *St. Matthew*, VII, 4-5.

² *The Rape of Lucrece*, ll. 554 and 556.

scribe" has been at work behind Miss M. Daunt's very attractive theory of the nature of the Old English "breaking".¹ For she seems to assume that the palatal or rounded quality believed to exist in certain Old Irish consonants and sometimes indicated in writing by respectively the glide-vowels *i* and *u*, found an echo in the Old English tradition of scribes whose forerunners had learned their craft from Irish missionaries. She appears to assume that, for instance, a clear distinction is intended of the front and back qualities or colourings of the *r* in the Old Irish word for man by the writing of the dative singular as *fiur* (rounded *r*) as against the genitive *fir* (palatal *r*). She then supposes that this distinction between the colouring of consonants was carried over and extended and systematized in Old English: so that, for example, the *o* in *seolh* is merely a graphic way of showing that the *l* is a back sound, and a clear phonematic distinction is drawn by the scribes between the front and the back types of *l* and final *r* by means of the insertion of merely graphic vowels to mark the back quality as assumed in the Irish dative *fiur*. But in view of the very limited and sporadic amount of material for the study of Old Irish spelling on which our theory must be based, and of the lack of anything like consistency or regularity in Old Irish Orthography, I doubt if we are in a position to check the hypothesis fully: and it is hard to believe that in such a word as O.E. *feorh* the *o* is merely graphic, while in *beodan* it must be part of a historical diphthong. Moreover the degree of phonematic consciousness implied would be extraordinary.

Nevertheless it is but fair to end this section of my *Caveats* by remarking that spelling as evidence has performed very valuable work for the restoration of some Middle English texts through their rhymes. A glance at the apparatus, for instance, of any well edited Middle English text will show how a study of the orthography of the rhyme-words in a poem, if related to appropriate other kinds of evidence, may point

¹ *Old English Sound-changes considered in Relation to Scribal Tradition and Practice*. Transactions of the Philological Society for 1939, pp. 108-137.

the way to an original reading lost through errors in scribal transmission or to the original dialect of the poem. Thus in *Sir Orfeo*, l. 362, the spelling of the Auchinlek MS. *anmal* (misread by the editors as *animal*) is of decisive value if considered beside the forms corresponding in the other two versions. In the couplet which appears in the Auchinlek MS. as

pe vousour was anowed al
Of ich maner diuers anmal

the early fifteenth-century Ashmole version has *emell* for the *anmal* of Auchinlek (2nd quarter of fourteenth century); and this suggests, as Zielke long ago remarked, that the original rhyme-word was some form of the ancestor of the modern French *émail*. Now *Sir Launfal*, another Breton lay, has the form *amall* at l. 270.¹ But the Harleian version of *Sir Orfeo* (late fifteenth century) has *metall*, which looks like a modernizing of the general meaning of *amal* while still preserving the rhyme. Auchinlek's *anmal*, then, may well be an error for *aumal* (*u* and *n* scribal confusion), which is a quite plausible form of *amal*. The couplet may conjecturally be reconstructed thus, allowing for some 50 years of scribal blundering:—

pe vousour was anow(rn)ed al
Of ilke manere of aumal.²

Again, the spelling of the word for "away" as *owy* at lines 94 and 559 of *Sir Orfeo*, confirmed as they both are by the requirement of the rhyme, seems to point to the original dialect having been some kind of South-Eastern or S.E. Midland: and this is strongly corroborated by other evidence.

A fascinating little problem in the relationship between spelling and pronunciation is presented by the various forms of *Bristol*. Though in the English examples the form with final *ll* or *l* does not appear before the end of the twelfth century (*Bristoll circ.* 1200), it seems that the Latin *Bristolia* can be found but little later (if at all) than the early examples of *Brycgstow* and *Bristow*, which begin about Edward the

¹ V. *Sir Orfeo* ed. Zielke (Breslau 1880), especially the note on p. 125.

² Cf. for the reading *anow(rn)ed* the text of *Sir Orfeo* in K. Sisam's *Fourteenth Century Verse and Prose*, Oxford 1923.

Confessor's time. What is the connection of this *l* in *Bristol* (compared with *Bristow*, etc.) with the well known final post-vocalic *l* found in the Bristol dialect of to-day, in such words as *Victorial* (Victoria) and *ideal* (idea) ?

VII

The orthography of rhymes as a criterion for pronunciation has been widely used by historians of the English language, and I think that very often it has been used far too confidently. Professor Wyld's outstanding little book on rhymes¹ has had too wide and indiscriminating a following, and the cautions he recommended there have been but little regarded.

The popularizing of the results of printing effected a revolution in poetry which especially concerns the validity of rhymes. More and more since Elizabeth's time the poet has tended to address himself to readers rather than to hearers : and the restraint on rhyming vagaries or carelessness provided by the assumed presence of an audience who must, at least approximately, *hear* the rhyme, has almost ceased to have importance in modern English. I would suggest five types of rhyme which are especially likely to become sources of erroneous conclusions about pronunciation unless carefully checked against other evidence. There is, first, the mere careless rhyme of the beginner, dependent alone on spelling, such as Milton's rhyming of *foul* and *soul* in his paraphrases of *Psalms* (though he was later a very accurate rhymers) : or there is the simple visual or spelling rhyme like Pope's *owls* and *fools* in *The Dunciad*. Such rhymes, having only an appeal to the eye, can have no significance for pronunciation. Secondly, there are what may be called traditional rhymes : and these are a plentiful source of error. By "traditional" rhymes I mean those which were originally true from the linguistic point of view, have become part of the accepted machinery of poetry, and thus have continued in use long after their pronunciation has so changed as to leave the words

¹ H. C. Wyld : *Studies in English Rhymes from Surrey to Pope* ; London 1923.

unsimilar except in spelling. Of this type is Milton's rhyming of *hand* and *wand*: for this was an excellent rhyme in the Middle English period, but ceased to be true linguistically as soon as the *w* of *wand* had come to round the vowel following. Now whether this rhyme is to be reckoned as indicating Milton's actual pronunciation or merely as traditional (and therefore not indicative of anything in pronunciation) will depend on the date by which the *w* of such words had come to change the nature of the following vowel. But Sir John Paston in the late fifteenth century already frequently writes *wosh* for *wash*, and there is plenty of evidence to show that the change which makes this rhyme of *hand* and *wand* appear to us as merely visual or orthographic, had in fact taken place more than a century before Milton used it. Such traditional rhymes, then, can have no value as evidence for pronunciation.

Then there are what I call "true plus" rhymes like Spenser's *arre* and *farre*. These are rhymes which are true in sound, but whose orthography has been adjusted by poet or printer to make a rhyme to the eye as well as to the ear. In *farre*, Spenser has a correct historical form, if a little archaic. He (or his printer) then adjusts the spelling of *are* to *arre* (which is quite unhistorical) to make an eye-rhyme of that which is already a true sound-rhyme.

Here it may be added that very often the spelling of early printed texts, which has been taken to represent the author, merely indicates the practice of particular printers, and that it is dangerous to assume that it represents anything in regard to the author's practice unless there is evidence of another kind to suggest this. For example, it is often noticed that Spenser seems to have played experimentally with the possible æsthetic effects of orthography in his *Shepherd's Calendar*. Yet we find that the extant copies of its first printed edition do not agree fully with each other in spelling; and printers often made changes in orthography while the book was actually in process of being printed. I have myself seen a copy of Spenser's *Complaints* in the library of Queen's College, Oxford, which does not seem to agree with others of the same first quarto.

Miss Darbishire's edition of the photographed MS. of the first book of *Paradise Lost* and her introductory essay on Milton's spelling, throw valuable light on the complex relations between author and printer in Charles II's days ; and the full study by Dr. Percy Simpson of this question¹ over a far wider period should be carefully pondered by all who wish to write on an author's pronunciation as evidenced by his spelling.

Fourthly, there are what—for want of a better name—I call traditional spelling-rhymes. These are those which were, in the early modern period, based simply on spelling and were therefore linguistically incorrect. But they differ from other visual rhymes because they have been used by outstanding poets whose example or influence has caused them to be accepted into the common poetical machinery. Of this traditional-spelling class is the rhyme of *love* and *grove*, first used, I believe by Marlowe and Spenser, though entirely without any basis in pronunciation historically, but ever since accepted as a good rhyme. At no time could these words have rhymed truly, since the one in Middle English would have had a tense and the other a slack *ō* ; and earlier than that they had no vowel resemblance at all.

Lastly, there are rhymes which are only approximate simply because the poet was careless in craftsmanship or in using his ears, or was deliberately aiming at popular or comic effects. On such rhymes no argument as to pronunciation should be based. But how are these careless rhymes to be detected in an earlier period of pronunciation whose details are themselves not fully known to us ? The answer must be, I would suggest, that the rhymes of each poet must be judged in the light of his general craftsmanship and practice. Thus, for instance, we may note that Keats is a far more careful or true rhymer than most of his great contemporaries, and the same observation may be made of Milton. When, therefore, we find Keats rhyming *the salt sea-spry* with *eye* in his *Endymion*,² the

¹ Percy Simpson : *Proof-reading in the 16th, 17th, and 18th Centuries* : Oxford, 1935.

² *V. Endymion*, Book IV l. 157.

commentators are right to attach significance to the pronunciation *spry* [sprai] of our word *spray*. But when they proceed, as does Mr. Garrod in his definitive edition of Keats' poems, to argue that this pronunciation arose from Keats' "Cockney" habits of speech, we must protest that at the poet's time both the pronunciations implied in the spellings *spray* and *spry* were good current English, though the latter was becoming old-fashioned. The *Oxford English Dictionary* makes this abundantly clear, and it was because it was not fully consulted that the error about the "Cockneyism" of Keats' *spry* became possible. Wordsworth's rhyme of, say, *bosom* and *blossom*, proves of no value because a general study of his craftsmanship of rhyme shows him to have been less exact than many. Again the rhyme of *gave you a* with *Saviour* in Gerard Manley Hopkins, in the light of what we otherwise know of him, is probably merely a deliberate approximation.

VIII

In the foregoing very desultory remarks, I have principally sought to stress four dangers which confront the historical philologist. These may be roughly grouped as dangers of the isolated use of the occasional spelling in the handling of texts, the too much isolating and stressing of orthography in rhymes, the tendency to see significance in every least variant of spelling (as for example in the writings of private letters)—a tendency to "hunt the letter" as it were; and lastly, the danger arising from the fact that the very staticness of our spelling in English often leads to an increased and exaggerated sensitiveness on the part of the philologist to every kind of vagary of orthography. I would not, however, be thought to be merely the enemy of the "occasional spelling": for there are plenty of instances of its great value, provided that such forms are not treated in isolation. Thus, for example, I would reject much of the curious spelling of Lady Margaret Hoby as merely the sort of thing one expects in a woman of good birth at the end of Elizabeth's reign. But when I find this lady almost regularly writing the past tense of the verb "to

write" as *wrett*, I accept this as significant, because I know of this type of spelling as likely to represent a Northern or N. Midland pronunciation at the time, that the Lady Margaret Hoby lived for long at Hackness and was of that part of England by birth, etc., etc.¹

The founder of the Society's great Dictionary wished, as I said at the beginning of this address, for the "gradual *partial* correction of our spelling"; while his contemporary A. J. Ellis (to whom also our Society owes so much) desired a parallel *phonetic* spelling which should exist side-by-side with the conventional orthography until it at length might overcome it: for Ellis considered any reform which sought to adjust our present orthography by Murray's slow method as "hopeless". But both Murray and Ellis agreed in aiming at and looking forward to the education of the public of this country into sensitiveness to the value of the phonetic relationship between sound and spelling such as the Germans have sought for themselves. Yet there is a real value, I believe, too in the staticness of our spelling in the permanence it may give to written forms and the relative independence of time and place which may arise from it. For in so far as our orthography is symbolic and ideographic rather than phonetic, it remains unruffled by those changes in pronunciation from which no language can escape. The periodic revision of our spelling might mean that a student in the year 10,000 would have to contemplate several types of orthography in addition to those that our history has already thrown up, in order to study our literature as a whole. Moreover, one may correspond comfortably with a friend in the Australian Bush or with English-knowing Indians, though mutual understanding of pronunciation is hardly to be come by, and a phonetic presentation of the facts would be complicated. The Chinese have a mainly symbolic method of writing which is independent of sound or time or place. I have never known a Chinese student make a mistake in spelling English, though because of this same

¹ *The Diary of Lady Margaret Hoby, 1599 to 1605*, ed. by Dorothy M. Meads; London, 1930.

ideographic orthography the philologists have found the problem of the pronunciation of older Chinese a very hard nut to crack.

What I would chiefly stress is that philologists, while being fully sensitive to the possibilities and advantages of both the phonetic and the ideographic and symbolic attitudes to orthography—ready to explore and take advantage of both methods of sound-symbol relationship,—while being conscious also of the inevitable time-lag between the pronunciation of a language at a given moment and its graphic expression in a way of orthography, should, in handling spelling as evidence, explore always all the concomitant related factors. It is not my concern to-day to discuss the *pros* and *cons* of the schemes of the Society for Simplified Spelling. The stage-Frenchman is said to have proposed as the spelling of the word *fish* the letters *g h o t i*:—*gh* as in *laugh*, *o* as in *women* and *ti* as in *nation*. But though such a farcical *reductio ad absurdum* has its point, I am primarily engaged now neither in the destruction nor the preservation of that heterogeneous historical character of our spelling which I have compared to amber: I am only anxious to dot the *i*'s and cross the *t*'s of some important considerations which must, in my view, be had in mind by the historical philologist in using English orthography as evidence. That it may have great and real value to the historian of the language, none will doubt.

THE SIGMATIC FORMS OF THE OLD IRISH VERB

By MYLES DILLON

1

The Formation of the Subjunctive Stem in Irish, and the Problem of the Indo-European Future.

[Beside the reduplicated *s*-future in Irish there is an unreduplicated form, identical with the *s*-subjunctive, and comparable to the ordinary Greek future. Pedersen has sought to show that the sigmatic future in Indo-European is based on a stem in *-es-* opposed to an aorist subjunctive in *-so-*. Brugmann's doctrine that the sigmatic future and the subjunctive of the *s*-aorist have a common origin is preferable.]

THE two Irish subjunctive stems, that in *-ā-* and that in *-s-*, are generally explained as related to aorist forms of other Indo-European languages¹; and in this respect Irish seems to have preserved the original system. Schwyzler observes that in Homer beside *δίδωμι, ἴημι, ἴστημι; τίθημι* no present subjunctive forms occur (except *μεθήησι*, Il. 13, 234), while the aorist subjunctive is frequent,² and his conclusion that subjunctive and optative moods were formed originally only from aorist stems confirms an earlier suggestion by Hirt.³

The *s*-subjunctive in Irish shows thematic inflexion, as is proper to the subjunctive, except in the act. sg. 3 and dep. sg. 2 and 3, which can be old injunctive forms: *-tías, -téis, -téi, -tíasam, -tésid, -tíasat* < **steigh-s-ō, *steigh-s-ei, *steigh-s-t*, etc.; *-messur, -messer, -mestar* < **med-s-ōr, *med-s-ter, *med-s-tro*.⁴ The reason for the presence of the non-thematic form

¹ Thurneysen, *Hdb.* § 594; Lewis and Pedersen, *Concise Celtic Grammar* § 454.

² *Griechische Grammatik* p. 687.

³ *Ibid.* 790, footnote 1; cf. H. Hirt, *Hdb. d. Gr. Laut- u. Formenlehre* § 481.

⁴ s. Lewis and Pedersen, *op. cit.* § 469.

in the active may lie in the fact that act. sg. 3 **steigh-se-t* would become **téis*, identical with sg. 2. Dep. **med-se-ter*, **med-se-tro* would result in **mester*, **messethar*, yielding a satisfactory paradigm, and I can suggest no good reason for the intrusion of non-thematic inflexion into the deponent. The sg. 3 may have followed the active form. The result of the non-thematic inflexion of the act. sg. 3 has been the appearance of forms, well-known to Celtists as among the most curious phenomena of the Irish verbal system, in which only pre-verbs survive: *scuichid* 'ends': subj. pres. sg. 3, with perfective *ro*, *-roisc*, showing the root initial; *do-coí* 'that he may go' < **di-kom-uet-s*: prototonic *-dich*, where most of the second preverb has fallen off with the stem, and we are left with a mere preverb and the initial consonant of a second. Similarly *du-diat* 'leads': *du-dí* < **to-di-uedh-s-t*; *as-indet* 'tells': *as-ind* < **eks-inde-ueidh-s-t*; but *in-fé*, when only one preverb is present.¹

These forms are instructive in connection with the modern technique of descriptive grammar in terms of structure, and the tendency to disregard the historical method. How is one to cope with a language which defies its own structure, and allows phonological law to change forms beyond recognition while memory holds them together? *Ad-fét* 'tells', and pres. subj. sg. 1 *ad-cous*² < **ad-kom-ueid-sō* (with perfective *-kom-*) were held together, as it were, by memory, and recognized, no doubt, as parts of the same verb. The perfective particle can be omitted and the subjunctive forms are sg. 1 *ad-fías*, 3 *ad-féi*, *ad-fé* (which do not happen to be attested), much closer in form to the indicative.

Corresponding to the two subjunctive stems are future stems in *-ā-* and *-s-* respectively which differ from them only in the presence of reduplication, the reduplicating vowel being *i*: *guidid* (ποθέω) 'prays': subjunctive *-gess*, *-geiss*, *-gé* (θέσσασθαι): future *-gigiús*, *-gigis*, **gig*. This *s*-future has been identified with the Sanskrit desiderative: *pac*:

¹ Thurneysen, Hbd. § 625.

² sg. 3 is not attested; **ad-cóe*, **ad-coí*, prototonic **accæe*.

pīpakṣati; *pā*: *pīpāsati*, *pīpīṣati*,¹ and the *ā*-future perhaps represents an old parallel formation which has survived only in Irish. But it is the *s*-future which I wish to discuss.

Beside the reduplicated forms there occur future forms of seven verbs which have the *s*-suffix without reduplication and are therefore identical with the subjunctive. The verbs are *aingid* 'protects'; *aness-*; *laigid* 'lies': *less-*; *ar-neāt* 'waits': *-ness-*; *at-raig* 'rises': *-ress-*; *rethid* 'runs': *ress-*; *saidid* 'sits': *sess-*; *techid* 'flees': *tess-*. Thurneysen convincingly identified this formation with the Greek *s*-future, pointing to *less-*: *λέξομαι*; *ress-*: *ὀρέξω*; *sess-*: *καθέσω*, and he held it as proven by Schulze (*Kleine Schriften* 107) that it was not originally an aorist subjunctive (144), but a west Indo-European desiderative-future. He explains it as a blend of the Sanskrit future in *-sīo* (with *e*-grade) and desiderative in *-so* (with reduplication and zero-grade), which in Greek became the normal form,² while in Irish the old Indo-European desiderative and the by-form without reduplication both survived (145).

We are thus invited to distinguish in Irish between an *s*-subjunctive, formed from an aorist stem, and an *s*-future, identical in form, which represents an old 'west Indo-European' desiderative or future in *-se/o-*. But meanwhile the latter is generally explained as containing a suffix *-s-* which formed present and aorist stems³: *ἀέξω*, *αῦξω* beside *augeo*; *ἀλέξω* = *rākṣati*; *uīso*, and Schwyzler, with Brugmann, recognizes this suffix in the (non-thematic) *s*-aorist and the (thematic) *s*-future.⁴ He later denies that the Greek *s*-future is subjunctive of an *s*-aorist, agreeing with Thurneysen, on the ground that verbs which have no *s*-aorist do form a future

¹ Thurneysen, *IF* 38, 144. The oldest Sanskrit forms show the zero grade of the root, and traces of this ablaut are present in Irish, s. Thurneysen *ib.*; Lewis and Pedersen, *op. cit.* § 456, note I (b).

² For the reduplicated future in Greek s. Schwyzler, *Gr. Gram.* p. 782.

³ Brugmann, *Grundriss*² II 3 §§ 255, *et seq.*; 300. Schulze had cast some doubt upon this doctrine (*Kleine Schriften* 109), in connection with the Lithuanian accent-system. The point he raised is beyond my competence, but Brugmann disregards it.

⁴ *Gr. Gram.* 706-07 § 389

in *s*, and that the asigmatic subjunctive is rarely future in meaning.¹

There seems to me to be some confusion here, or at least the possibility of misunderstanding. It is clear that the Greek future is not built upon the *s*-aorist in Greek, since the two formations appear independently: *πάσχω πείσομαι ἔπαθον*; *λαμβάνω λήψομαι ἔλαβον*.² But I do not find that Brugmann supposed that it was. His formula is: 'Formen voluntativ-futurischen Sinnes, die ihren Bildungselementen nach wie Konjunktive von *s*-Aoristen erscheinen'.³ Later he points out that the thematic vowel occurs in the imperative of non-thematic aorists in both Sanskrit and Greek: *neṣa*, *οἶσε*, and observes: 'Diese *so*-Formen zeigen wie unscharf die Grenzen zwischen *-so-* als Bildungselement des Konj. des *s*-Aorists und als Bildungselement eines themavokalischen Indikativs mit voluntativer oder prospektiver Bedeutung ursprünglich waren'.⁴

The old theory still seems to me the simplest and the best, namely that the *s*-future and the short vowel subjunctive of an *s*-aorist are identical in origin. Pedersen dismissed as a hopeless expedient Brugmann's theory that aorist subjunctive and future were originally the same thing. He admitted the affinity between aorist and future, but stressed the fact that neither in Greek nor in Sanskrit is the future limited to the perfective aspect.⁵ He then sought to show that there was, in the Indo-European period, a distinct future formation, closely akin to the aorist, but distinguished from it by the fact that the future had the normal grade *-es-* in the suffix (presumably with a reduced grade of the root in the original forms), while

¹ *ib.* 787; cf. Buck, *Comparative Gr. of Greek and Latin* § 389. It is doubtful whether future meaning is less frequent in the asigmatic forms, s. Hopkins, *AJP* 13, 32 f.; Whitney, *ib.* 293-94. Delbrück replied to Hopkins, *Grundriss* IV ii, 243 f.; but s. Brugmann, *Grundriss*² II iii 524, 836.

² s. Schwyzer, *op. cit.* p. 781 for many other examples.

³ *op. cit.*² II 3 p. 384.

⁴ *ib.* p. 423.

⁵ 'Les Formes sigmatiques du verbe latin et le problème du futur indo-européen,' *Det Kgl. Danske Videnskab. Selskab., Hist.-fil. Medd.* III 5 (1921) 7, 24-25; cf. *Grundriss*² II 3, 385.

the aorist had the reduced grade *-s-* in the suffix, both originally non-thematic. He found survivals of this future inflexion in Oscan *pertemest*, Umbrian *ferest*, and identified the suffix *-es-*, with secondary thematic inflexion, in Lat. *ēmero* (also *emerem*), Gk. *ἐδοῦμαι*, *θανοῦμαι* and futures of the type *φανῶ*. He thus claims an Indo-European future in *-es-* opposed to a subjunctive in *-so-*. It would be the oldest form, of which the *-sio-* of Indo-Iranian and Baltic would be an extension. This depends upon his denial that Oscan *pertemest*, Umbrian *ferest* have lost the thematic vowel by syncope. He suggests that the non-thematic sg. 3 in Irish may be a survival of this ancient future. Schwyzer rejects his explanation of the Greek forms, *op. cit.* 784, preferring that of Schulze (*Kl. Schr.* 107). So also Leumann for the Latin forms, *Lat. Gr.* 326; and it does not appear that the evidence is sufficient to sustain the supposed future in *-es-*. It must be admitted that the vowel before *-s-* in *ferest*, *pertemest* remains unexplained. It may have the same origin as the *-e-* in *κτενέω*, *στελέω*, (*φανέω*), itself obscure, which Schulze showed to be of Indo-European date.¹

On the other hand, Pedersen does not discuss the common type *δείξω*. Would he admit that here at least an old subjunctive has become a future as in Latin *ero*? Pedersen himself concludes: 'Les rapports du futur indo-européen avec l'aoriste sigmatique sont donc plus étroits qu'on ne le soupçonnait jusqu'ici. Tous les deux temps sont formés au moyen d'un même suffixe, et l'hypothèse qu'ils ont été dès l'origine

¹ Professor Sturtevant calls my attention to the *s*-suffix in Hittite which forms presents of verbs in *-mi* and preterites of verbs in *-hi*. Here the form *-es-* appears, beside *-as-*, in both present (sg. 3 *ga-ne-eš-zi* beside *da-ma-aš-zi*) and preterite (pl. 1 *ta-me-eš-šu-en* beside 3 *ta-ma-aš-šir*), *s. Hitt. Gr.* §§ 318, 319, 461. The origin of the *e* is uncertain. It could be interpreted as the reduced grade of *-ē*, final of a disyllabic root, as in Gk. *γενέτωρ*, and the suffix would be *-s-*, but it looks as though there may be some connection with the 'extension of certain roots before the *s* of the future and desiderative', which Schulze regarded as proto-Indo-European (*loc. cit.* 105), that is to say, with the alternation *-es-/s-*, which Pedersen sought to explain. But in Hittite *-es-* is common to present and preterite forms.

tout simplement le temps non passé et le temps passé d'un verbe perfectif, est devenu plus vraisemblable que jamais. Mais il faut se rappeler néanmoins qu'ils sont devenus autonomes et indépendants l'un de l'autre avant la fin de la période indo-européenne.'¹

This theory is reaffirmed by Pedersen in his 'Études Lituanienes',² where it is maintained, against Leskien,³ that the fut. sg. 3 in Lithuanian is non-thematic. Here, however, the suffix appears as *-s-*, not *-es-*, just as in Irish. The difference between his doctrine and that of Brugmann is stated as follows: 'Si le futur indo-européen a été un thème en *-s-*, nous entrevoyons un état de choses où le futur était tout simplement le temps actuel et général d'un verbe perfectif dont le temps passé a fourni l'aoriste en *-s-*. Le rapport du futur et de l'aoriste en *-s-* était donc le même que le rapport du présent et de l'imparfait (temps actuel-général et temps passé d'un verbe imperfectif)... Mais ce rapport entre le futur et l'aoriste en *-s-* est préhistorique. Dans les langues indo-européennes les plus anciennes (le grec et le sanskrit), le futur est la désignation expresse du temps à venir et peut être imperfectif.... C'est là une manière de voir qui diffère du tout au tout des théories de Brugmann, *Grundriss*² II 3, 383 ss., 407; car on entrevoit aisément que Brugmann n'attribue au futur qu'un âge moins ancien, en y voyant un développement secondaire dont l'une des sources était l'aoriste.'⁴

This is not the sense that I get from Brugmann, and it is not in this sense that I venture to prefer his view to that of Pedersen. It seems to me that the occurrence of non-thematic aorists in *-s-* beside stems in *-so-* which are both future and subjunctive in the historic period (Sanskrit, Greek,⁵ Irish), with a shift of the subjunctive stem to *-sē-*, *-sō-* in Greek, as the future and potential uses became differentiated, implies

¹ *op. cit.* 25.

² *Ibid. Hist.-fil. Medd.* XIX 3.

³ *Litauisches Lesebuch* 199; but Brugmann explains the form as a non-thematic injunctive, *op. cit.* ² II 3, 384.

⁴ *Ibid.* pp. 3-4.

⁵ s. Hopkins, *AJP* 13, 20.

a primitive state of the language when these two functions were served by the same form.¹ The non-thematic sg. 3 forms in Lithuanian, Irish, and Sabellic (?) may indeed be survivals of present-aorist indicative forms with future meaning. In Lithuanian, as in Irish, the thematic forms of sg. 2 and 3 would have fallen together.

Those Irish verbs which have preserved one set of forms for the two functions, even when they had become grammatically distinct, have merely adhered to the old system.

2

The s-preterite in Old Irish

[The *s*-preterite has its origin in roots ending in *-s*, which yielded an aorist suffix *-ss-* not liable to disappear between vowels. The root **q^zes-* (or **q^zeis-*) 'to see' was one of these, and *s*-forms of O.I. *ci-* are not to be regarded as late formations. The reduplicated *s*-aorist may be an old Indo-European form.]

There are three ways of forming the preterite in Irish, of which two are confined to strong verbs, and one is characteristic of weak inflexion. The strong formations are the *t*-preterite, which perhaps contains an Indo-European 'terminative' suffix *-to*,² and the suffixless preterite which derives from the Indo-European perfect. The third is the *s*-preterite, which, with the *f*-future, is proper to weak verbs in *-ā* and *-ī* (cf. Lat. *laudāre*, *finīre*). In discussing this formation the authorities are agreed on two points: (1) that it derives in some way from the Indo-European *s*-aorist, and (2) that the preservation of intervocalic *-s-* is due, as in Greek, to the influence of consonantal stems, whose consonant would protect the suffix. Thurneysen, indeed, does not say quite

¹ Renou regards the thematic vowel as originally marking an 'eventual' form which appears sometimes as indicative, sometimes as modal. The thematic indicative and short vowel subjunctive would then be identical in origin, s. BSL 33, 5.

² s. A. Sommerfelt, *Symbolae Grammaticae in hon. J. Rozwadowski*, 255. The explanation proposed by Thurneysen (KZ 37, 118), that the *t* was originally the sg. 3 ending of a root aorist is preferred by Pedersen, CCG 300.

so much, but confines himself to suggesting a comparison with Gk. ἐδάμασσα.¹ Pedersen is more positive: 'Die abgeleiteten Verba auf -ā-, -ē-, -ī- besaßen in urindogermanischer Zeit wohl keinen -s-Aorist; nach dem Muster der primitiven Verba haben sie jedoch im Slavischen und im Griechischen einen solchen Aorist neugebildet: gr. ἐ-τίμησα, ἐ-φίλησα slav. *dělavŭ* 'ich machte', *velěxŭ* 'befahl', *xvalixŭ* 'lobte'. So auch im Keltischen. Das -s- musste in diesen Neubildungen im Keltischen (wie im Griechischen), soweit es intervokalisches war, lautgesetzlich zu -h- werden; es ist aber nach dem Muster derjenigen (einst vorhandenen) Aoriste, in denen das aoristische -s- unmittelbar an den wurzelauslautenden Konsonanten getreten war, analogisch als -s- restituiert worden. Die Restitution hat jedenfalls in einer sehr alten Zeit stattgefunden, wo noch das -k-s- und -t-s- der Aoriste der primitiven Verba mit wurzelauslautendem Hinterlingual oder Dental sowohl im Ir. wie im Brit. unassimiliert erhalten war.'²

But it is also observed that traces of the original formation, in which the suffix was added directly to the root, do survive in Irish: *ad-gládathar* 'speaks to, addresses': pret. sg. 3 prototonic, with infixed *ro*, *-árlastar* (**ad-ro-glād-s-tro*); pl. 1 *ad-glaasmar*, wrongly explained as subjunctive by Thurneysen, Hdb. § 594; but deuterotonic sg. 3 *ad-gládastar*, with a borrowed vowel before the -s-; *saidid* 'sits': pret. sg. 3 absolute and conjunct *seiss* (beside *síasair* which shows reduplication of the s-stem, and inflexion as a deponent suffixless preterite); *ar-neut* 'I wait': pret. sg. 3 deponent, with infixed *ro*, *ar-ru-neastar*. Bergin has proved that the stem *neith-* is a compound **ni-sed-*, so that this form merely confirms the evidence for the root **sed-*. *for-deret* 'traverses, surveys': pret. sg. 1 deponent *for-derisiur* (**for-dè-ret-s-ör*).³ To these must be added certain forms of *ad-cí* 'sees', the root of which is known to have ended in *s* (pret. pass. *ad-cess*),

¹ Hdb. § 671.

² VKG II, p. 376.

³ VKG II, p. 388, Anm. 6. The simple *rethid* 'runs' and all other compounds has a suffixless pret. *ráith*, but subjunctive and future are always in -s-.

and was probably *q²es- (Skr. *caṣate*). This verb forms its preterite most often by reduplication: -accae < *ād-q²eq²ose, that is to say by the use of the old perfect; but a few s-preterites occur, two of them in the Milan glosses: pl. 3 *niru rescisset*, 34c11; *niru frescisset*, 72c13, and the others, sg. 3 *tincais*, pl. 3 *tincsetar*, as preterite of a compound *to-in-ad-ci- 'attends to' in a twelfth century ms. where the verb seems to have been reformed upon a weak stem *inc*.¹ Since the s-aorist is closely akin to the s-future in Indo-European,² it is not irrelevant to point out that *cí*-, while forming subjunctive and future regularly in -ā-, has s-forms in the passive: -accastar (beside *ad-cíther*), fut. *at-chichestár*, and a pl. 3 active *at-chichset* occurs in a tenth century poem, *Ériu* 3, 30.10,³ beside -*aiccichet* elsewhere.

This verb then supplies the model required for the s-preterite of vocalic stems, a root ending in -s, which disappeared except when immediately followed by a consonant, so that the aorist stem appeared to have -ss- added to the preceding vowel. There were, no doubt, many other such roots, and the reduplicated sg. 3 *bebais* 'died' (root *bas-) may not be due to analogy as Thurneysen supposed (ZCP 13, 104).

Why is it that almost all strong verbs avoid the s-preterite in Old Irish? We have seen that four strong verbs, *ci*-, *glád*-, *reth*-, *sed*-, having preterite forms in -s-, have the suffix added directly to the root. Of these only *glád*- has the s-preterite alone, while the others have also the suffixless formation; and *ci*-, *reth*-, *sed*- form the subjunctive and future in -s-, while *glád*- has only the ā-subjunctive. The s-forms of *ci*- are rare. Only two early examples of the preterite are attested, and in the subjunctive and future ā-forms are normal; but

¹ VKG p. 488; Lewis and Pedersen, *Concise Celtic Grammar*, p. 352. I leave out of account *ar-ru-muinset*, Ml. 90a1, formed from the present stem, beside -*ménatar* and *nád arroimsat*, Wb. 28a23 beside *ar-róet*, s. Thurneysen, Hdb. § 670.

² Pedersen suggests that the future was originally the non-preterite form, the aorist indicative the preterite, of the s-stem, *Formes sigmatiques*, 3.

³ Thurneysen supposes that it is a late form, *Ind. Anz.* 33, 33, but the s-future was scarcely a spreading type in the later Old Irish period.

Thurneysen observed of the pres. subj. sg. pass. *-accastar* that it is probably the older formation (Hdb. § 607), and future *s*-forms have been cited above. Only a single preterite in *-s*- from *reth-* is attested, the simple verb and all other compounds having the suffixless *ráith*, but subjunctive and future are always in *-s*-. *sed-* is not well attested in the preterite. Vedic has a perfect *sasāda*, pl. 3 *sēdur* (cf. Latin *sēdi*, Gothic *sat*, *sētum*). An Irish suffixless pret. sg. 1 *-sīad*, 2 *-sīad*, 3 *-sīaid*, pl. 1 *-semmar*, 2 *-sīaid*, 3 *-setar* would be possible, and this paradigm survives in the perfective preterite sg. 3 *du-essid*, *-dessid*, pl. 3 *do-esetar* (TBC² 3164), with the preverbs **di-en*⁻¹. The simple pret. sg. 3 occurs once in Old Irish as *síasair* (Thes. Pal. II 327, 13) and a sg. 1 *sessar* in a Middle Irish text (Aisl. MCG. 93.2); pl. 3 rel. *siasatár* (LU 5299) can be old. In one text in the Book of Leinster the sg. 3 occurs four times as *seiss*, *-seiss* (RC 14, 447). The text is Middle Irish in its present form, and Pedersen regards the examples as due to confusion with the future,² but they have been held by Zimmer and Thurneysen to be genuine early forms.³ The subjunctive and future of *sed-* are always in *-s* : subj. sg. 2 *-seiss* and fut. sg. 3 *seiss* occur.

The condition of the verb *ci-* is instructive. Here we find *s*-forms in subjunctive, future, and preterite, but always as alternative, and apparently in process of disappearance. Since in Irish the inflexion of subjunctive and preterite in *-s*- fell together through the spread of the thematic stem to the old aorist indicative (and the intrusion of a few non-thematic forms into the subjunctive), and since aorist and perfect had merged, as in Latin, in a common preterite tense, it was natural that verbs having an *s*-subjunctive should adopt the old perfect as preterite. Verbs having the *ā*-subjunctive might adopt either perfect or aorist. *Glád-*, with the subjunctive and future in *-ā*-, and the preterite in *-s*- presents the

¹ cf. *laigid* 'lies'; perfective pret. sg. 3 *dellig*, *-dellechuir*, pl. 3 *dellgetar*. A simple pret. **leiss* or **liliss* might be expected, but no such form has yet been found.

² VKG II, 604.

³ KZ 30, 151; 31, 97.

type of differentiation that spread ; and it is to this type that the weak verbs, all of which have the \bar{a} -subjunctive, owe their *s*-preterite. This is confirmed by the fact that of the strong verbs in Pedersen's index other than the four mentioned, all that have the *s*-preterite have the \bar{a} -subjunctive, while the great majority have the *s*-subjunctive and the suffixless preterite.¹

In this connection it is worth observing that of fourteen strong verbs taking an *s*-preterite (*ba-*, *car-*, *gaib-*, *gat-*, *glád-*, *gní-*, *ib-*, *neth-*, *rá-*, *sed-*, *sel-*, *sní-*, *ta-*, *tuil-*) six show reduplication : *ba-*, *bebais* ; *gní-*, *-génus* (pl. 3 *gnísit*, without reduplication, RC 12, 58.7) ; *rá-*, *rerais* ; *sed-*, *síasair* (*seiss*, v. *sup.*) ; *sel-*, *siblais* ; *sní-*, *-séni* ; *ta-*, *-tadus*. It has been held that this cannot be a formation of Indo-European date,² but reduplication of the *s*-future is normal (adding presumably intensive or desiderative force), and reduplication of asigmatic aorist stems is well established in Vedic and Greek, so that a redupli-

¹ (a) *s*-subj. and suffixless pret. : *arc-*, *bond-*, *cerd-*, *cing-*, *clad-*, *clich-*, *ding-*, *dlong-*, *fed-*, *fiad-*, *fich-*, *finn-*, *glenn-*, *greenn-*, *guid-*, *icc-*, *ith-*, *laig-*, *lig-*, *ling-*, *long-* 'to eat', *long-* 'to sustain', *maid-*, *mid-*, *mlig-*, *nasc-*, *nig-*, *od-*, *reg-* 'to bind', *reth-* (except pret. sg. 1 *-derisiur*, v. *sup.*), *rond-*, *scuich-*, *senn-*, *seth-*, *slig-*, *tech-*, *tong-*, *tracc-*.

(b) \bar{a} -subj. and *s*-pret. : *car-*, *gaib-*, *gat-*, *glád-* (v. *sup.*) *gní-*, *ib-*, *rá-*, *sel-*, *sní-*, *ta-*, *tuil-*.

(c) \bar{a} -subj. and suffixless pret. : *ben-*, *can-*, *cluín-*, *cren-*, *dam-*, *er-*, *fen-* (pret. *for-chui*, VKG ii 444), *fo-gain-*, *glen-*, *gnín-*, *gon-*, *gu-*, *laim-*, *len-* 'to follow', *muin-*, *ren-*, *riad-* (pret. not well attested), *scend-*, *snig-*, *tlen-*.

(d) mixed or doubtful inflexion : *ba-* : \bar{a} -subj. (\bar{a} - and *s*-fut.), suffixless and *s*-pret. ; *bong-* : *s*-subj., suffixless and *t*-pret. ; *ci-* : \bar{a} - and *s*-subj., suffixless and *s*-pret. ; *cid-* : *s*-subj., no pret. attested ; *cuir-* : \bar{a} -subj., no pret. (suppletive) ; *da-* : no subj. attested, *s*-pret. ; *den-* : no subj. attested, suffixless pret. (KZ 37, 112) ; *dlig-* : *s*-subj., *t-* and *s*-pret. ; *neth-* : \bar{a} - and *s*-subj. (*s*-fut.), *s*-pret. ; *reg-* 'to stretch' : *s*-subj., *t-* and suffixless pret. ; *sed-* : *s*-subj., suffixless and *s*-pret. ; *slaid-* : *s*-subj. (late *s*-pret.) ; *snad-* : *s*-subj., no pret. attested ; *ta-* : \bar{a} - and *s*-subj. (*s*-fut.), *s*-pret. ; *tend-* : no subj. attested, suffixless pret. ; *tiag-* : *s*-subj., no pret. (suppletive) ; *tuil-* : *s*-subj., no pret. (suppletive).

(e) It will be well to complete this synopsis with a list of the verbs which form a *t*-pret. (s. A. Sommerfelt, *loc. cit.*) : (a) \bar{a} -subj. : *ag-*, *al-*, *ball-*, *ber-*, *cel-*, *dar-* (subj. not attested), *em-*, *gair-*, *gel-*, *ger-*, *mar-*, *mel-*, *sem-*, *sern-*, β) *s*-subj. : *aneg-*, *mag-*, *org-*, *reg-* 'to stretch', *saig-*.

² s. Zimmer, KZ 30, 123 ; Thurneysen, *ib.* 31, 62.

cated *s*-aorist is not in itself monstrous. The form indeed is present in Greek: μέγαν δ' ἐλέλιξεν "Ολυμπον, II. 1, 530, where, however, the reduplication is specially 'affective', and the present stem is also attested with reduplication in a few examples (ἐλελιζόμενος, ἐλελιζετο).¹ The reduplicating vowel could be *i* or *e* in all the Irish examples except *-tadus* where the root vowel is reduplicated. Pokorny has shown that the suffixless pret. of *i*-roots had *i* in the reduplication,² so that *i* is here too perhaps acceptable, but *e*-roots would have had *e* in the reduplication, and *e* may equally well have become generalized.

Thurneysen classified the formation, without discussing its origin, as proper to verbs whose roots ended in a long vowel, and accordingly withdrew an earlier objection to the derivation of *ta-* from IE. **sthā-*.³ *Síasair* is explained as an old perfect, influenced by *-sissedar*, *bebais* as analogical, and *siblais* is not discussed. The evidence for an *s*-preterite of *sed-* has been considered above; *bebais* could be analogical, but the analogy is not clear, and the form is old, and is confirmed by the pl. 3 *bebsait* 'they died' in a very early poem, *Ált. Ir. Dicht.* II, 7. I would claim it, with *ci-* (and perhaps *ta-*?) as one of the sources of the Irish *s*-preterite, since the root probably ended in *-s*⁴; *siblais* is explained by Pedersen as an old suffixless pret. which has taken the ending of an *s*-pret. and the reduplicating vowel of the future.⁵ but in the presence of so many other reduplicated *s*-preterites this is perhaps unnecessary. The difficulty is rather in the non-palatal *-bl-*, with *i* in the preceding syllable: *siblais*, not

¹ Beside μερμήριξε, μερμηρίζω is also well attested: πορφύρω occurs only in pres. and imperf. Professor Bonfante calls my attention to the fact that ἐλελιζω is attested in Homer only in the aorist (15 times), s. A. Gehring, *Index Homericus*.

² ZCP 11, 25; 1F 35, 336; Thurneysen, ZCP 13, 101.

³ ZCP 13, 104. His objection was based upon the past subj. pass. sg. *-étaste*, which suggests a root ending in *-s*, Ind. Anz. 33, 36. Also pret. pass sg. *-étas*, LU 7256, cf. IT 144.7; 120.21; fut. *-étastar*, Bethu Phátraic 1362.

⁴ Thurneysen, Hdb. § 701; Ind. Anz. 33, 33. *so-* 'to turn', which forms the *s*-pret., may also be from a root ending in *-s*, s. *ibid.* 36.

⁵ VKG II, 623.

**siblis*; and it must be due to the influence of the future *-siblor*, a form itself not easy to explain.

There seems to be no sufficient reason to regard the formation as confined to roots ending in a long vowel, particularly since no occasion has been suggested for the development in these roots beyond others. Those who cannot accept the notion of a reduplicated *s*-aorist as inherited from Indo-European may prefer to hold that the Irish *s*-forms have arisen under the influence of the *s*-future. Here the reduplicating vowel is *i*, subject to umlaut if the root contained *a* or *o*: *memais*, *nenais*, *selais*. When the *s*-subjunctive (and future) and the *s*-preterite became mutually exclusive forms, verbs which retained the one abandoning the other, since the future presented simple forms with and without reduplication, and the reduplication was often lost by syncope in the compound verbs, which are the great majority, it would be easy for reduplicated preterites to arise. In fact *bebais*, which is pret. at Féil. Prol. 95, Feb. 18, April 23, occurs as future 'will die', ZCP 12, 237.11 (but fut. pl. 3 rel. *bebté*, Wb. 25b16).

Finally a word about the *s*-aorist in derived verbs. Pedersen supposes that it is not of I-E. date, and so does Brugmann, *Grundriss*² II 3, 206. In Vedic the forms are rare,¹ but less than half the roots occurring in the Rig-Veda show any aorist forms,² an indication of the fragmentary state of the evidence. In Greek, on the other hand, the type appears as an old one, for the homeric forms with intervocalic *-σσ-* (ἐδάμασσα) are explained by analogy with such forms as ἐτέλεσσα which is a derived verb. For Latin Bonfante has shown, I think, that *cantāro*, *cantāram*, *cantārim*, *cantāsse*, are best explained as formed from an aorist stem **cantās-*.³

There is another approach to the question. For the aorist there were briefly three possibilities. Either the root was itself aorist in meaning, and personal endings were added without more ado, the question being then that of forming a durative

¹ Whitney, Sanskrit Grammar § 1068.

² *ib.* § 827.

³ Language 17, 209.

or inceptive or other non-aorist (present) stem ; or the root was subject to vowel gradation as between present and aorist, —in terms of Sanskrit grammar, it belonged to both the first and sixth classes (*bhávati* and *tudáti*) ; or the root, not aorist in itself, could be given the aorist aspect by means of a suffix *s*.¹ From the evidence of Skr. *adísat* : Gk. *ἔδειξα* we conclude that a root **deik-* was capable of both inflexions, and we assume that there was originally, perhaps in a pre-Indo-European period, a difference of meaning between **dikéti*, **edikét*, and **deíksti*, **edéikst*. But this difference had disappeared within the Indo-European period, and the suffix *s* had become a mark of the aorist. Now the formation of verbs from nouns by means of a suffix -*jo-* is also of I.-E. date. Is it reasonable to suppose that these verbs could have no aorist ? It would be odd if none such were formed as were capable of the aorist aspect. And the suffix *s* was at hand, to which the aorist value had clearly attached itself.² Unless the Indo-Europeans behaved, in matters linguistic, very differently from their grandchildren, these verbs must have had the *s*-aorist.

This *a priori* reasoning is not the fashion in comparative grammar, and it is obviously open to objection. I do not press it, but venture to say this much merely to test an authoritative opinion which I cannot share.

¹ I leave out of account the features of vowel gradation which present themselves in the Sanskrit *s*-aorist.

² Meillet has pointed out that all Greek verbs with present in *jo* have the *s*-aorist ('Sur l'aoriste sigmatique,' *Mél. De Saussure* 93). However, he too regards the formation as secondary (*ib.* 85 f., 94). His opinion that the element *s* was not a suffix but a mere enlargement of the root conflicts with Pedersen's doctrine.

(This article has benefited by the criticism of Professor Sturtevant and of Professor Bonfante. They are, however, not responsible for the views expressed.)

PALATALIZATION OF CONSONANTS IN JUXTA- POSITION IN RUSSIAN ¹

By S. BOYANUS

THE object of this article is to illustrate my own speech habits in the palatalization or non-palatalization of a consonant in juxtaposition with a following palatalized one. In conformity with the law of regressive assimilation in Russian ² a consonant preceding a palatalized one is generally palatalized. In some definite instances, however, this palatalization does not occur in my speech and in that of a great number of other speakers.

There are many cases in which the palatalization of the first consonant is not very distinctly heard, e.g. the palatalized **s'** or **z'** in words like **s'n'eg** (snow), **s'l'iva** (plum), **z'd'efn'ij** (local).³ The existence of palatalization may, however, be effectively tested in words in which **e** in a stressed syllable is followed by two consonants the second of which is palatalized: if the vowel before the two consonants is the close variety of the **e**-phoneme (phonetic symbol **e**), then the consonant is soft or palatalized, since the close variety of **e** occurs only before soft consonants. Examples: **p'es'n'a** (not **p'esn'a**) (song), **vozm'ez'd'ije** (not **vozm'ezd'ije**) (retribution), and compare **kr'es'l'e** (armchair (prep. sing.)) with **kr'eslo**, **kr'eslu**, etc. (other cases).

If on the other hand the vowel before the two consonants is the open variety of the **e**-phoneme (phonetic symbol **ɛ**), then the consonant is hard or non-palatalized, since the open variety **ɛ** occurs only before hard consonants. Example: **z'eml'i** (lands).

¹ The subject of this article was suggested to me by Professor N. B. Jopson, of Cambridge, and I thank him for the suggestion.

² See S. Boyanus, *A Manual of Russian Pronunciation*, p. 89, §§ 122 ff. (Sidgwick and Jackson, London).

³ The system employed in this article for writing Russian words is a *transliteration*, except for the phonetic symbols **e** and **ɛ** which distinguish close and open varieties of **e** and also **ʃ** (sh), **ʒ** (zh), **tʃ** (tch).

Most of the following examples illustrate the above method of demonstration. But a few cases of other types are included, where the palatalized consonant is clearly heard or when there is no suitable example with *e* for illustration.

1. **p, b, m, k, g, x** followed by soft consonant

The bi-labials **p, b, m**, the velar plosives **k, g**, and the velar fricative **x** are not palatalized in juxtaposition with a following soft consonant.

Examples of p, b, m

- pt'** : l'εpt'e (dat. and prep. sing. of l'εpta, mite), skept'ik (sceptic).
- pn'** : v'el'ikol'εpn'ej (comp. of v'el'ikol'εpnyj, magnificent).
- pl'** : p'εpl'e (prep. sing. of p'εp'el, cinders), t'εpl'itsa (it burns, shines faintly).
- ps'** : sk'εps'is (scep sis), r'εps'e (prep. of r'εps, rep).
- pr'** : v'εpr'e (prep. sing. of v'εpr', wild boar).
- ptʃ** : kr'εptʃe (comp. of kr'εpk'ij, strong, solid).
- pk'** : ʃtʃεpk'i (chips, splinters), kr'εpk'i (pl. predic. form of kr'εpk'ij, strong, solid).
- bn'** : utʃεbn'ik (text-book), vraʒd'εbn'ej (comp. of vraʒd'εbnyj, hostile).
- bl'** : s't'εbl'i (stalks), kol'εbl'et (3rd pers. sing. pres. of kol'εbat', to shake, agitate).
- br'** : s'er'εbr'ennyj (adj., silver), d'εbr'i (jungle, thicket).
- mn'** : tʃεm n'e molod'ets ? (What is lacking in smartness, good health, etc., in me ?) dialectal r'εmn'i (usually r'εmn'i straps).
- ml'** : z'εml'i (lands), vn'εml'et (3rd pers. sing. of vn'at', to listen, hear).
- ms'** : z'εms't'v'e (prep. of z'εmstvo, rural self-government in pre-revolutionary Russia).
- mz'** : p'εmz'e (dat. and prep. of p'εmza, pumice-stone).
- mtʃ** : n'εmtʃik (dim. of n'εmets, a German), ʒεmtʃug (pearl).
- mʃtʃ** : t'ur'εmʃtʃik¹ (gaoler).
- mk'** : n'εmk'i (German women).

¹ ʃ in juxtaposition with following tʃ is always soft; v'εʃ'tʃ (thing), 'b'εʃ'tʃet'v'er't'i (a quarter to).

When, however, a bi-labial is in juxtaposition with a following soft bi-labial it is palatalized, e.g. **t'em'p'e** (prep. of **t'emp**, tempo), **zar'em'b'e** (dat. and prep. of **zar'emba**, a name).

Examples of k, g, x

- kt'** : **s'ekt'e** (dat. and prep. sing. of **s'ekta**, sect), **pr'ef'ekt'e** (prep. sing. of **pr'efekt**, prefect), **korr'ekt'n'ej** (comp. of **korr'ektnyj**, proper, correct).
- kl'** : **s'ekl'i** (they whipped, flogged), **p'ekl'e** (prep. sing. of **p'eklo**, scorching heat).
- ks'** : **b'eks't'v'e** (prep. sing. of **b'ekstvo**, hasty retreat), **t'eks't'ik** (small text), **v'eks'el'** (promissory note).
- ktj** : **n'ektjemu** (no good).
- gm'** : **fl'egm'e** (dat. and prep. sing. of **fl'egma**, phlegm, phlegmatic person).
- gd'** : **n'egd'e** (nowhere).
- gr'** : **n'egr'e** (prep. of **n'egr**, negro).
- xn'** : **t'exn'ika** (technics, technique).
- xtj** : **l'extje** (easier).

It is noteworthy that the consonants **p, b, m**, which are articulated at the entrance of the mouth and **k, g, x** at the back of it, i.e. in the two extreme parts of the speech apparatus, are not affected by a following soft consonant.

2. Consonant followed by palatalized k, g, x

When a consonant precedes palatalized **k, g, or x**, there is no palatalization.

Examples

- tk'** : **v'etk'i** (branches), **d'etk'i** (children), **r'etk'i** (pl. short ending form of adj. **r'etk'ij**, rare).
- nk'** : **kol'enk'i** (knees), **s't'enk'i** (gen. sing. and nom. and acc. pl. of dim. **s't'enka**, little wall).
- rk'** : **m'er'k'i** (measures), **prov'er'k'i** (verifications).
- sk'** : **stam'es'k'i** (chisels), **l'es'k'i** (fishing-lines), **pr'iv'es'k'i** (pendants).
- zg'** : **rozg'i** (birch-rods).
- tx'** : **v'etx'i** (pl. short ending form of adj. **v'etx'ij**, ancient).

3. f, v followed by soft consonants

The labio-dentals **f, v** might be dealt with together with the bi-labials, since they behave in the same way, but they seem to be less stable, and vacillations are noticeable in my speech and in that of many speakers of my type of Russian.

Examples

- ft'** : n'eft'i (gen. sing. of n'eft' petroleum, oil).
fs' : d'efs't'v'innitsa (virgin).
ftf : p'eftfij (chorister, choir-boy).
fftj : pos'eftfik (sower).
fk' : d'efk'i (gen. sing. and nom. pl. of d'efka, girl).
vn' : dr'evn'ij (ancient, antique), kot'f'evn'ik (nomad), tsar'evn'e (dat. and prep. sing. of tsar'evna, daughter of the czar), d'er'evn'a (village).
vl' : d'ef'evl'e (cheaper), izdr'evl'e (of yore).
vz' : n'gyz'il (didn't take).

Note.—The vacillation in my speech affects the word d'er'evn'a. I always pronounce d'er'ev'n'a, v d'er'ev'n'e, v d'er'ev'n'u. Some speakers say d'ef'k'i for d'efk'i (see fk').

4. Consonant followed by palatalized p, b, m, f, v

Usage varies when a consonant precedes a palatalized bi-labial or labio-dental consonant.

Examples

- t'm'/tm'** : t'm'in and tm'in (cummin).
d'm'/dm' : d'm'itr'ij and dm'itr'ij (Demetrius (name)).
n'f'/nf' : kan'f'ety and kanf'ety (sweetmeats).
n'v'/nv' : kan'v'ert and kanv'ert (envelope).
t'v'/tv' : t'v'er' and tv'er' (name of a town).
d'v'/dv' : d'v'er' and dv'er' (door).

But

- z'v'** : rez'v'itsa (he, she frisks), bez'y'es't'i (with no knowledge of anybody), l'ez'v'ije (blade of knife, etc.).

Note.—I say t'm'in, d'm'itr'ij, t'v'er', d'v'er', but kanf'ety, kanv'ert (not kan'f'ety, kan'v'ert).

5. Palatalized consonants preceded by t', d', n', s', z', j'

Palatalized t', d', n', s', z', j' are used before all palatalized consonants. Hard t, d, n, s, z, j, never occur in this position.

Examples

- t'n' : spl'et'n'a (gossip), l'et'n'ij (adj., summer), kar'et'n'ik (coach-maker), zam'et'n'ej (more noticeable).
- t'l' : p'et'l'a (loop).
- t's' : nas'l'et's't'v'e (prep. of nas'l'etstvo, inheritance), b'et's't'v'ije (calamity), pr'iv'et's't'v'ije (greeting).
- But
d'etss't'v'e, prep. sing. of d'etsstvo (childhood), because the speaker pronounces an independent ts which is hard and adds to it the ending -s't'v'e.
- t'tf' : gaz'et'tfik (newspaper man), razv'et'tfik (scout, feeler), oprom'et'tfivij (rash, precipitate).
- d'n' : m'ed'n'ik (tinker), nas'l'ed'n'ik (heir), pos'l'ed'n'ij (last).
- d'l' : m'ed'l'it (he, she lingers, delays), 'ned'l'atfivo (for no purpose).
- n't' : m'en't'ik (hussar's pelisse), p'en't'ux (lubber, lout), protsen't'e (prep. sing. of protsent, percentage).
- n'd' : l'eg'en'd'e (dat. and prep. sing. of l'eg'enda, legend), kr'en'd'el' (a kind of bun).
- n's' : p'en's'ija (pension), blagod'en's't'v'ije (bliss, prosperity), zen's't'v'innyj (womanly), duxov'en's't'v'e (prep. sing. of duxov'enstvo, clergy).
- n'z' : pr'et'en'z'ija (claim, grievance), ven'z'el' (monogram, initials).
- n'tf' : mlad'en'tfik (dim. of mlad'en'ets, baby), v'en'tfik (halo), izm'en'tfivij (variable, inconsistent), zas't'en'tfivij (shy).
- n'f'tf' : zen'f'tfina (woman), otsen'f'tfik (valuer), izm'en'f'tfik (betrayed).
- s't' : m'es't'e (prep. sing. of m'esto, place), d'v'es't'i (200).
- s'n' : p'es'n'a (song), v'es'n'ik (herald, messenger), l'es'n'itsa (staircase), [t not pronounced in v'es't'n'ik and

- l'es't'n'itsa]** in't'er'es'n'ej (comp. of in't'er'esnyj, interesting).
- s'l'** : **jes'l'i** (if), **kr'es'l'e** (prep. sing. of **kr'eslo**, armchair).
- z'd'** : **jez'd'it** (he, she goes (not on foot)), **vozm'ez'd'ije** (retribution), **sozv'ez'd'ije** (constellation).
- z'n'** : **b'ez'n'e** (dat. and prep. sing. of **b'ezna**, chasm, abyss), **najez'n'ik** (rider, horseman), **pol'ez'n'ej** (comp. of **pol'esnyj**, useful).
- z'l'** : **l'ez'l'i** (they climbed).
- f'tf** : **r'ef'tfe** (comp. of **r'ezk'ij**, cutting, piercing), **pom'eftfik** (landowner), **b'eftfet'v'er't'i** (quarter to).

Note.—In **t'n'**, **t'l'**, **t's'**, **t'tf**, **d'n'**, **d'l'**, **t** and **d** are palatalized but not exploded. The use of the close variety of **e** before the consonant groups proves that palatalization is present.

6. r before a palatalized consonant

(a) Palatalized r.

Palatalized **r'** is used before a soft consonant when it terminates a stressed syllable containing the vowel **i** or **e**, or containing vowel **a**, **o** or **u** which has a soft consonant or a **j** preceding it. In other cases the **r** after the stressed syllable is non-palatalized.

Examples with e in stressed syllable

- r'p'** : **t'er'p'it** (he, she bears, endures), **v'inotfer'p'ij** (cup-bearer).
- r'b'** : **s'er'b'ija** (Serbia), **v'er'b'e** (dat. and prep. sing. of **v'erba**, pussy-willow), **uftfer'b'e** (prep. sing. of **uftferb**, detriment, harm).
- r'm'** : **t'er'm'in** (term, expression), **f'er'm'e** (dat. and prep. sing. of **f'erma**, farm).
- r'f'** : **v'er'f'** (dockyard).
- r'v'** : **p'er'v'entstvo** (priority), **tfer'v'i** (hearts (cards)), **n'er'v'e** (prep. sing. of **n'eruv**, nerve).
- r't'** : **sm'er't'** (death), **zer't'** (perch, pole), **kontser't'e** (prep. sing. of **kontsert**, concert), **konv'er't'e** (prep. sing. of **konvert**, envelope).

- r'd'** : **zer'd'i** (perches, poles), **s'er'd'it** (he, she makes (me) angry), **us'er'd'ije** (zeal).
- r'n'** : **t'er'n'ii** (thorns), **v'etfer'n'a** (vespers), **l'itsem'er'n'ej** (comp. of **l'itsem'er'nyj**, hypocritical), **kop'er'n'ik** (Copernicus), **n'eimov'er'n'ej** (comp. of **neimov'er'nyj**, incredible).
- r'l'** : **s't'erl'ad'** (sterlet, small sturgeon).
- r's'** : **p'er's'ija** (Persia), **s'v'er's'n'ik** (person of the same age), **p'er's'n'i** (signet-rings), **v'er's'ija** (version).
- r'z'** : **s'v'er'z'ilsa** (he fell down, was thrown down).
- r'tf'** : **komm'er'tfisk'ij** (commercial), **mat'er'tfatyj** (made of textile fabric), **p'er'tfik** (dim. of **p'er'ets**, pepper).

Examples where stressed syllable has a palatalized consonant before a back vowel

- r't'** : **tför't'e** (prep. of **tfort**, devil).
- r'n'** : **d'ör'n'i** (imp. of **d'ornut'**, to pull, tug).
- r'l'** : **t'ör'l'i** (past t. pl. of **t'er'et'**, to rub).

Example where stressed syllable has j before a back vowel

- r'n'** : **jör'n'ik** (debauchee).

(b) *Non-palatalized r in stressed syllables*

r is not palatalized when it terminates a *stressed* syllable beginning with a back vowel, or which has a hard consonant before the vowel.

Examples

- rt'** : **part'ija** (party), **port'it'** (to spoil, damage).
- rd'** : **ord'er** (order, mandate).
- rn'** : **par'n'a** (acc. sing. of **par'en'**, fellow, lad), **forn'ik** (harness maker), **durn'e** (prep. sing. of **dur'en'**, fool).
- rl'** : **marl'a** (gauze), **gorl'e** (prep. sing. of **gorlo**, throat).
- rs'** : **kurs'e** (prep. sing. of **kurs**, course).

(c) *Non-palatalized r in unstressed syllables*

r is not palatalized if the syllable containing the **r** is unstressed.

Examples

- rt'** : **vert'ët'** (to turn, whirl), **vert'l'á'vos't'** (fidgetiness).

- rd'** : serd'étfnos't' (cordiality).
rv' : s'erv'is (service, set of dishes, etc.).
rz' : verz'fla (man as tall as a maypole).
rn' : zern'istyj (grainy, granular).

7. Consonant followed by palatalized r'

When a consonant precedes palatalized r', there is no palatalization of that consonant.

Examples

- v** : vr'em'a (time).
f : fr'enska (fresco).
t : tr'i (three), portr'et (portrait).
d : 'kɛdr'e (prep. of k'ɛdr, cedar), handr'it' (to be in the blues).
z : pr'ɛzr'it (3rd pers. sing. future tense of prezr'et', to scorn, disdain).

THE PHILOLOGICAL SOCIETY
BALANCE SHEET, 1942
GENERAL FUND

	£	s.	d.		£	s.	d.
To Balance							
* Annual Subscriptions 1941 (14)			14 10 4	By Stationery and miscellaneous printing			
1942 ¹ (142)			149 4 4	Stamps:			
1943 (4)			4 4 0	Postage and receipt		2 16 4	
[refunded 1942 (1)]			1 1 0	Registrar of Companies		5 2	
			168 19 8	Cheque		2	
Interest:				Transfer to Life Subscription Fund:			3 1 8
Post Office General Fund			23 2 11	Life Subscription		15 15 0	
Life Fund:				Entrance Fee		1 1 0	
War Loan			9 14 3	Interest on Post Office Life Fund		4	
P.O. Life Fund			9 14 7	Subscription refunded			16 16 4
Sales				Transactions, 1940:			1 1 0
Life Subscription			32 17 6	Printing		85 1 6	
Entrance Fees			46 19 2	Distribution		11	
			15 15 0	Balance:			85 2 5
			3 3 0	Bank Current Account		108 8 2	
			£1,343 12 1	P.O. General Fund		1,128 10 0	
						1,236 18 2	
						£1,343 12 1	

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¹ 143 subscriptions for 1942, £150 5s. 4d.

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170 Members in 1942.

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25th February, 1943.

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Transfer from General Fund	263	17	7		279	15	5
	16	16	4		18	6	
	£280 13 11				£280 13 11		
	£280 13 11				£280 13 11		

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ANNUAL REPORT FOR 1942

DURING the year 1942 the Society held two ordinary meetings besides attending a lecture given on 23rd January by M. J. Burnay on 'The General Linguistics of M. Gustave Guillaume, with particular reference to languages of the Chinese type'. At the Anniversary Meeting on 15th May Professor Alf Sommerfelt read a paper on 'The position of Linguistics in the Post-War World' and on 1st December Mr. S. E. Mann read one on 'Some additions to Greek Etymology'. The Society is again indebted to the School of Oriental and African Studies for its hospitality.

Transactions 1940 appeared at the end of May, but its successor is still in the press; the greater part of the first proofs of Dr. L. R. Palmer's *Post-Ptolemaic Papyri* has been corrected.

During the year one ordinary member joined and Professor Alf Sommerfelt was elected an Honorary Member; the total membership stood at 170, including 9 members in enemy or occupied countries.

The Society sustained heavy losses in the death of its last two Presidents, Sir Allen Mawer and Professor R. W. Chambers.

A. WOODWARD } *Joint Honorary*
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14th May, 1943.

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(Corrected to June, 1944)

* * * Members are reminded that it is only by their active assistance that the List of Members can be kept up to date. They are earnestly requested to call attention to existing errors, and to give timely notification of changes of address, titles, and degrees to the Hon. Secretary, MISS A. WOODWARD, M.A., Royal Holloway College, Englefield Green, Surrey.

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demi (milieu XVII^e siècle-fin XVIII^e) pendant laquelle le tchèque cessa pratiquement d'être écrit.

Dans les cas de formes doubles, c'est celle qu'emploient les auteurs contemporains (ceux de la période républicaine : 1918-1938), qui servira de base au classement. — Il va sans dire qu'un classement du verbe vieux-tchèque — ou du verbe tchèque parlé moderne — serait en partie différent de celui qui sera proposé. C'est du tchèque écrit (littéraire) contemporain, de la morphologie du verbe constatée chez les écrivains actuels, qu'il est question ici.

Parmi les diverses formes verbales, il faut d'abord exclure, comme n'étant pas susceptibles de servir de base au classement, celles qui se déduisent mécaniquement d'autres formes — ainsi d'une part le participe passé actif en *-l*, le gérondif passé et l'adjectif qui en est dérivé, le part. passé passif, dont les formes dépendent de l'infinitif — d'autre part l'impératif, le gérondif présent et l'adjectif qui en est dérivé, qu'on tire automatiquement de la 3^e pers. du pluriel du présent.

Reste à choisir entre deux formes verbales : le présent et l'infinitif. Laquelle des deux fournit le plus d'informations sur l'ensemble de la flexion ? Ce n'est *pas* l'infinitif, car à un infinitif donné correspondent souvent plusieurs types flexionnels. Ainsi à un infinitif en *-ati* (*-áti*) peuvent correspondre : prés. *-u*, gér. *-a* (*bráti*, *beru*, *bera*) ; prés. *-u*, gér. *-aje* (*drapati*) ; prés. *-aji*, gér. *-aje* (*hráti*) ; prés. *-ěji*, gér. *-ěje* (*hřáti*) ; prés. *consonne palatale -i* (ou *-u*), gér. *consonne palatale -e* (*řezati*, *řeži*, *řeže* ; *lháti*, *lžu*, *lže*) ; prés. *consonne palatale -i* (ou *-u*), gér. *consonne non palatale -aje* (*kousati*, *kouši*, *kousaje* ; *stonati*, *stůňu*) ; prés. *-ám*, gér. *-aje* (*dělati*), sans même parler des cas exceptionnels comme *spáti*, *spím* ; *báti*, *bojím se* ; etc. Au contraire à un présent donné correspond le plus souvent un seul type flexionnel, quelquefois deux, exceptionnellement trois :

Présent *-u*, gér. *-a*, infinitif *-ti* ; ou gér. *-a*, inf. *-ati* ; ou gér. *-aje*, inf. *-ati* (trois types ; auxquels il faut joindre les

quelques verbes isolés à thème vocalique, et à suffixe consonantique au présent seulement : *jedu, jdu, budu, stanu se*).

Présent *-nu*, gér. *-na*, inf. *-nouti*.

Présent *-voyelle-ji*, inf. *-voyelle-ti* ; ou inf. *-voyelle contracte-ti*.

Présent *-u-ji*, inf. *-outi* ; ou inf. *-ovati*.

Présent *consonne palatale-i*, inf. *consonne non palatale-ati*.

Présent *-ám*, inf. *-ati*.

Présent *-ím*, 3^e plur. *-ějí*, inf. *-ěti*.

Présent *-ím*, 3^e plur. *-í*, inf. *-iti* ; ou inf. *-ěti*.

C'est donc sur la flexion du présent qu'il faudra baser le classement du verbe, — cette flexion étant résumée en deux des personnes du présent : la 3^e plur., indispensable, parce que tout le groupe du présent (impératif, gérondif) s'en déduit en général mécaniquement ; et une autre (par exemple la 3^e sg.), afin de distinguer le type *dělám*, 3. *dělá*, 3. pl. *dělají* du type *hrají*, *hraje*, *hrají* et le type *umím*, *umí*, *umějí* du type *spějí*, *spěje*, *spějí*.

Une fois adopté ce principe, on aboutit nécessairement à cinq classes de verbes, parce qu'il y a cinq types de présent : I *-e*, *-ou*, II *-ne*, *-nou*, III *-e*, *-í* (*-je*, *-jí*), IV *-voyelle longue*, *voyelle brève-ji* (*dělá*, *dělají* et *umí*, *umějí*), V *-í*, *-í*. Et on fera ici deux remarques :

La première est qu'il peut paraître légitime de classer les présents I et II ensemble. En effet, tout le groupe du présent a, dans ces deux types, la même flexion : *nese*, *nesou* ; gér. *nesa* et *padne*, *padnou* ; gér. *padna*. Toutefois les verbes du groupe II ont une individualité bien particulière, et d'autre part ils présentent au groupe de l'infinitif un suffixe qui se maintient à l'infinitif (*-nou-ti*) et au participe (*-nu-t* dans la plupart des verbes), alors qu'il tombe au prétérit (*-l* après consonne dans la plupart des verbes), — phénomène dont on n'a pas l'équivalent dans les verbes à présent *-e*, *-ou*. Il semble préférable de conserver aux verbes en *-ne*, *-nou* une classe distincte. Mais il sera possible (par exemple en les réunissant par une accolade) de souligner que les classes I et II

ont entre elles une ressemblance plus étroite qu'aucune des autres classes de verbes.

La parenté plus lointaine qui existe entre les présents (mais non les groupes du présent) des types I-II et III d'une part (voyelle prédésinentielle *e* bref : 1. plur. *neseme*, *padneme*, *mijeme*, etc.) — et d'autre part des types IV et V (voyelle prédésinentielle longue : 1. plur. *děláme*, *prosíme*, etc.), — vaut également d'être signalée.

Autre remarque : On classe habituellement le type en *-í*, *-ějí* avec le type (V) en *-í*, *-í*, — sans doute parce que dans les deux cas la 3^e pers. sg. est en *-í*. Mais il faut observer que toute la flexion des verbes de ce type est identique à celle des verbes en *-á*, *-ají* :

Prés. *voyelle longue*, *voyelle brève-jí* ; gér. *voyelle brève-je* ; impér. *voyelle brève-j*.

dělá ; *dělají* ; *dělaje* ; *dělej*

umí ; *umějí* ; *uměje* ; *uměj*.

Les deux lois phonétiques qui rendent compte de cette identité (**ě* long > *i* et **-aj* > *-ej*) sont des lois statiques dont on retrouve des exemples dans tout le système de la langue. Subsidiairement : les verbes en *-í*, *-ějí* ; inf. *-ěti* (la plupart dénominatifs inchoatifs) ont une individualité sémantique qui les rapproche des verbes en *-á*, *-ají*, — et les écarte des verbes en *-í*, *-í* ; inf. *-ěti* (dont plus de moitié sont des verbes de "bruits").

En partant de ce qui précède, voici à quel classement on aboutit. On notera qu'en serrant davantage les définitions de chaque type de présent dans les sous-classes (nombre de syllabes du présent, nature de la consonne ou de la voyelle qui termine le radical du présent), il a été possible d'éliminer la plupart des indéterminations relatives au type d'infinitif correspondant qui figuraient encore au tableau donné plus haut.

{ Classe I } Présent *-e*, *-ou* → Impératif zéro ou \rightarrow (*-i*) ;
 { Classe II } Gérondif *-a*, *-ouc*.

Classe I. Présent *-e, -ou* → Impératif *zéro* ou *-i* (*-i*) ; gérondif *-a, -ouc*. Thème consonantique sans suffixe au présent.

Ia.—Présents (tous dissyllabiques, sauf un : *čte, čtou*) en *s-, z-* ; *b-* (un verbe), *v-* (un verbe) ; *t-, d-* ; *k-* (*č-*), *h-* (*ž-*) ; *l-* (un verbe) ; — monosyllabes en *r-* (*ř-*), *n-*, *m-* → Infinitif *-ti*, prêt. *-l*, part. passé pass. *-en*. (Type radical.)

Ex. *nese, nesou* ; *nes* ; *nesa* → *nésti, nesl, nesen*.

Ib.—Dissyllabes en *r-, n-* ; — monosyllabes et dissyllabes en labiales → Infinitif *-ati*. (Type mi-radical mi-suffixal.)

Ib1.—Dissyllabes en *r-, n-* ; — monosyllabes en *v-, p-* (un verbe) → Infinitif dissyllabique (dans tous les cas) en *-ati*. La formation de l'impératif et du gérondif présent est régulière.

Ex. *bere, berou* ; *ber* ; *bera* → *bráti, bral, brán*
zve, zvou ; *zvi* ; *zva* → *zváti, zval, zván*.

Ib2.—Dissyllabes en labiales → Infinitif trissyllabique en *-ati*. Le gérondif est de cl. IV (*-aje*) ; l'impératif tantôt de cl. IV (le plus souvent), tantôt de cl. I. (Type mixte.)

Ex. *drápe, drápou* ; *drap* ou *drápej* ; *drápaje* → *drápati*.

A côté de la cl. I figure une petite série de verbes dont la flexion ne correspond pas exactement aux définitions données plus haut. Ce sont quelques verbes à thème vocalique, qui offrent au présent un suffixe ou un élargissement qui ne figure pas au groupe de l'infinitif : *jede, jedou* → *jeti* ; *jde, jdou* → *jíti* ; *bude, budou* → *býti* ; *stane se, stanou se* → *státi se*. Ils se conjuguent, au groupe du présent, comme les verbes de cl. I. Ils sont d'ailleurs trop peu nombreux et de type trop peu homogène pour constituer une classe à part. On pourrait les ranger sous le numéro I'.

Classe II.—Présent *-ne, -nou* → Impératif *-ň* (*-ni*) ; gérondif *-na, -nouc*. Thème consonantique ou vocalique → Infinitif *-nouti*, prétérit *-l* (*-nul* après voyelle, ou consonne unique), gérondif passé *-nuv*, part. passé passif *-nut* (*-en* dans une vingtaine de verbes).

Ex. *řízne, řízno*; *řízna* → *říznouti, řízl* (*lnul, schl, vinul*), *říznuv, říznut* (-*paden*).

Classe III.—Présent *-e, -i* → Impér. *zéro*; gér. *-e, -íc*. (Somme toute la classe III est le type mou correspondant à la cl. I. On remarquera l'étroit parallélisme de ces deux classes).

IIIa.—Les désinences du groupe du présent suivent *-j* après base vocalique.

IIIa1.—Dissyllabes en *i-*; *u-*; *y-*; (une dizaine en) *ě* → Infinitif *base vocalique-ti*. (Type radical.)

Ex. *myje, myjí*; imp. *myj*; gér. *myje* → Infin. *mýti*; pré. *myl*.

IIIa2.—Dissyllabes en *a-*; (sept en) *ě* → Infinitif *-á-ti*. (Infinitif contracte.)

Ex. *hraje, hrají*; *hraj*; *hraje* → *hráti*, pré. *hrál*
hřeje, hřejí; *hřej*; *hřeje* → *hřáti*, pré. *hřál*

IIIa3.—Polyssyllabes (Présents de trois syllabes au moins) en *-u-* → Infin. *-ovati*. (Suffixe à vocalisme alternant.)

Ex. *buduje, budoují*; *buduj*; *buduje* → *budovati*.

IIIb.—Les désinences du groupe du présent suivent une consonne palatale ou *l-* → Infinitif *consonne non palatale-ati*. (Type mi-radical mi-suffixal.)

IIIb1.—(Aucun verbe en *š-* au présent alternant avec *ch-* à l'infinitif; aucun verbe en *ř-*, ni en *ň-*.) La formation de l'impératif et du gérondif présent est régulière.

Ex. *řeže, řeží*; impér. *řež*; gér. *řeže* → *řezati*
lže, lžou; *lži*; *lže* → *lháti*.

IIIb2.—(Aucun verbe en *l-*). Le gérondif est tantôt de cl. IV (*-aje*), tantôt de cl. III; l'impératif est toujours de cl. IV. (Type mixte.)

Ex. *kouše, kouší*; *kousej*; *kousaje* ou *kouše* → *koušati*
stůňe, stůňou; *stonej*; *stůňe* → *stonati*.

Classe IV.—Présent 3^e sg. *voyelle longue*, 3^e plur. *voyelle brève-ji* → Impérat. *voyelle brève-j*; gérond. *voyelle brève-je* → Infinitif *voyelle brève-ti*.

Verbes pour la plupart secondaires. (Type suffixal contracte.)

IVa.—Suffixe *-a-* dans les deux groupes. Impératif *-ej*.

Ex. *dělá, dělají*; imp. *dělej*; gén. *dělaje* → *dělati*.

IVb.—Suffixe *-ě-* dans les deux groupes. Impératif *-ěj*.

On peut, pour la commodité, subdiviser IVb en deux séries, qui, toutefois, du point de vue de la morphologie moderne, ont la même flexion :

IVb1.—Surtout dénominatifs [suffixe ancien **-ě-*].

Ex. *umí, umějí*; *uměj*; *uměje* → *uměti*.

IVb2.—Déverbatifs [suffixe ancien **-ja-*].

Ex. *nabízí, nabízejí*; *nabízej*; *nabízeje* → *nabízeti*.

Cas particulier : *má, mají* a son présent et son gérondif (*maje*) de type *a*, mais l'impératif (*měj*) et les formes du groupe de l'infinitif (*míti, měl*, etc.) de type *b*.

Classe V.—Présent *-í, -í* → Impératif *zéro* ou *-(-i)*, gérond. *-ě*.

Va.—Infinitif *-iti*, part. passé passif *-(j)en*.

Ex. *prosí, prosí*; *pros*; *prose* → *prošiti*, p.p.p. *prošen*.

Vb.—Infinitif *-ěti*, p.p.p. *-ěn*.

Ex. *trpí, trpí*; *trp*; *trpě* → *trpěti*.

On rattachera à Vb (et non à Va), en vertu d'explications historiques, les anomaux ou apparemment anomaux : *bojí se, báti se*; *stojí, státi*; et aussi *spí, spáti*; afin de ne pas créer de sous-classe pour un si petit nombre de verbes.

Athématiques.—*Jí, jedí* → *jísti*; *ví, vědí* → *věděti*; *je(st), jsou* → (*býti*).

Remarques sur diverses classes ou sous-classes.

Cl. Ia.—*Slove, slovou* → Inf. *slouti* est, contrairement à ce qu'enseignent certaines grammaires, encore en usage. On le classera plutôt en classe Ia qu'en classe I' (Trávníček, *Stručná mluvnice česká*, p. lxxvii, place *slouti, slovou* à côté de *jeti, jedu*, etc. et de *státi se, stanu se*); le phonétisme de l'infinitif *slouti* exclut qu'on puisse sentir comme un suffixe ou un élargissement le *-v-* du présent *slove*, comme c'est le

cas pour le *-d-* de *jede* en regard d'infinifif *jeti*, etc., ou pour l'*-n-* de *stane se* en regard d'inf. *státi se*.

Cl. Ib1.—*Cpáti* est à ranger ici, malgré son origine historique, parce qu'il se conjugue exactement comme *bráti* ou *zváti*: *cpe*, *cpou*; gér. *cpa*.

Cl. Ib2.—A l'exception de *zebe*, *zebou* → Inf. *zábsti*, prêt. *zábl* et de *slove*, *slovou* → Inf. *slouti* (cl. Ia), — tous les dissyllabes en labiale à présent en *-e*, *-ou* appartiennent à cette série. Et seulement les dissyllabes: le seul trissyllabe qui y ait appartenu anciennement, *kolébe*, *kolébou*, est aujourd'hui, dans la langue littéraire, fléchi selon le type de cl. IVa, *koléba*, *kolébaji*.

Les dissyllabes en labiale ont été classés ici, et non en classe III, 1° parce que, s'il est vrai que la plupart proviennent historiquement de ce qui est ici la cl. III, quelques-uns proviennent aussi de cl. I, plusieurs de cl. IV, et il n'y a pas de raison de les classer de préférence dans l'une de ces trois classes, 2° la flexion de ces verbes au présent est sentie par un Tchèque d'aujourd'hui comme identique à celle des verbes de cl. I (on en trouvera l'indication en consultant les méthodes pratiques, non-scientifiques, pour l'étude de la langue tchèque: Mikkula, *Progressive Czech*; Vymazal, *Deutsch-Böhmische Gespräche für Deutsche*, etc.). L'impératif, dans la mesure où il n'est pas analogique, est senti comme de formation identique à celui de cl. I (*drap*); dans les très rares cas où le gérondif (ou le participe qui en est dérivé) n'est pas analogique, il est de cl. I (*tepa*, qu'on trouve par ex. chez Olbracht; *plovoucí*). Quand l'impératif et le gérondif sont analogiques (*drápej*, *drápaje*), leur formation n'est pas de cl. III, mais de cl. IV.

Classe II.—Les verbes comme *řekne*, *nalezne*, etc., ont leur infinitif de cl. I (*říci*, *naléztí*, etc.) plus usuel que celui de cl. II, ou seul usuel. On les placera cependant en cl. II, parce que c'est le présent qu'on a adopté comme base du classement. Les doublets tels que *oblékne* = *obleče*, etc., devront figurer dans les deux classes.

La seule subdivision morphologique possible de la cl. II

consisterait à mettre dans une sous-classe particulière les quelques verbes (en provenance de cl. I) dont le présent est en *-ne, -nou*, mais le groupe de l'infinitif (ou tout au moins l'infinitif et le participe passé passif) est du type radical : *řekne, řeknou; řekni; řekna* → *řici; řekl; řek; řecen*. Mais 1° il ne s'agirait que de quelques unités, 2° surtout l'infinitif du type radical est souvent doublé, ou remplacé dans certains composés, par un infinitif analogique en *-nou-* : on a *dořici* seulement, mais *odřici* ou *odřeknouti*, *podřici se* et *podřeknouti se*, etc., et aussi *vyřici* et *vyřeknouti*. Le départ serait impossible.

La subdivision en perfectifs (surtout déverbatifs, momentanés) et en imperfectifs (surtout dénominatifs, inchoatifs) est commode, et il n'y a pas de raison de ne pas la conserver. Mais elle n'est pas morphologique.

IIIa3.—Les verbes radicaux qui ont anciennement appartenu à cette flexion (*kuje, kují* → *kovati*, etc.) sont tous passés à d'autres types flexionnels, presque toujours en se dédoublant (*kuje, kují* → *kouti* [cl. IIIa1]; *kove, kovou* → *kovati* [cl. Ib2]; *ková, kovají* → *kovati* [cl. IVa], etc.). Même infin. *psovati* (à côté de *psouti*), en regard de seul présent *psuje, psují* (*psujou*), paraît avoir cédé le pas à *psouti* (c'est en effet p.p.p. *sepsut* qu'emploient Vančura, *Pole orná a válečná*, et d'autres). Il y a tendance manifeste à fléchir les dissyllabes en *-uje, -ují* qui ont appartenu à la classe IIIa3, comme les dissyllabes en *-uje, -ují* de la classe IIIa1, — et à ne conserver en IIIa3 que les polysyllabes (secondaires et emprunts). C'est parce que cette tendance a abouti, que la classification proposée ne maintient pas ici un sous-groupe de verbes radicaux (dissyllabiques) qui a cessé d'être réel.

Cl. IIIb.—Les verbes en *l-* d'une part, *ň-* de l'autre ont 3. plur. *-ou* et non *-í*. Il faut cependant les classer en cl. III (et non en cl. I), parce que le gérondif est en *-ě*; — et aussi, pour les verbes à présent en *šl-* et en *ň-*, parce qu'ils opposent une consonne (ou un groupe de consonnes) palatale au présent à une consonne (ou un groupe) non palatale à l'infinitif.

Il en est de même pour *lze*, *lžou* ; gér. *lze* → Infinitif *lháti*. On ne peut le placer en cl. I, non seulement parce que le gérondif est *lze*, mais encore parce que le présent 3. plur. *lhou* est exceptionnel dans la langue proprement littéraire. La seule forme usuelle (et aussi en tchèque parlé) est *lžou*, 1. sing. *lžu*.

Cl. IVa.—Il faut placer ici *dá*, *dají*, qui se conjugue comme *dělá*, *dělají*. L'ancien gérondif *dada* est sorti de l'usage.

Il reste à montrer que, dans le classement qui précède, on a pu, en serrant les définitions de chaque type de présent, réduire la plupart des indéterminations qui subsistaient lorsqu'on se contentait de définitions plus lâches.

En classe I, il n'en subsiste plus, — si ce n'est pour les quelques (quatre) monosyllabes en *n-* de cl. Ia (*tne*, *tnou* ; *pne*, *pnou* ; etc.) qui risquent d'être confondus avec les monosyllabes de cl. II (*hne*, *hnou*, etc.). C'est d'ailleurs ce qui s'est produit pour plusieurs d'entre eux (et aussi, par extension, pour les deux monosyllabes en *m-*), à des degrés divers, même dans la langue littéraire (par ex. *mne*, *mnou*, anciennement de cl. I, est passé entièrement à la cl. II), et d'une manière plus étendue encore dans la langue parlée. Inversement un verbe de cl. II, devenu monosyllabique (*roz-žne*, *roz-žnou*, de *roz-žhne*), a développé dans la langue littéraire contemporaine des formations de cl. I (Infin. *rozžíti*, prêt. *rozžal*, part. passé passif *rozžat* ; imperfectif dérivé suffixal *rozžínati*), qu'emploient à peu près tous les auteurs.

En classe IIIa, il y a indétermination entre les dissyllabes en *-ěje*, *-ějí* à infinitif en *-ěti* de type IIIa1 (au nombre d'une dizaine : *spěje*, *spějí* → *spěti*) et ceux à infinitif contracte en *-áti* de type IIIa2 (sept verbes : *hřeje*, *hřejí* → *hřáti*).

En classe IIIb, il y a indétermination entre les verbes du type régulier (1) et ceux du type mixte (2). Mais il s'agit en réalité d'une série unique de verbes en voie d'évolution analogique, dont les individus ont en partie une flexion mal

fixée, qui varie chez les divers auteurs, ou même chez un auteur donné.

Enfin en classe V, il y a indétermination entre les verbes à infinitif en *-iti* (qui constituent la série de beaucoup la plus nombreuse de verbes tchèques) et ceux à infinitif en *-ěti*. On notera que ces derniers ne sont qu'au nombre d'un peu plus d'une centaine, dont plus de la moitié sont des verbes de "bruits".

On constatera que le classement proposé écarte les seuls risques de faute analogique auxquels soit guère exposé l'étudiant étranger, ou même tchèque : à savoir l'emploi des terminaisons de présent *-u*, *-ou* de cl. I en cl. III (*myju*, *myjou* ; *řežu*, *řežou* au lieu de *-i*, *-í*) ; et celui de *-ějí* de cl. IVb en cl. V (*trpějí*, et même *prosejí* au lieu de *-í*).

Bien entendu l'ordre dans lequel les différentes classes ont été rangées les unes par rapport aux autres, n'a pas en lui-même de valeur. On pourrait, en adoptant un principe complémentaire, donner les numéros I, II, ... aux types productifs (ici IVa et b ; Va ; IIIa3, ...), etc. ; ou adopter d'autres dispositifs encore. Il conviendrait cependant d'y garder les classes qui sont appelées ici I et II, l'une auprès de l'autre, en raison de leur étroite ressemblance. Mais c'est là une question subsidiaire. Ce qui est important, c'est de placer ensemble ce qui va ensemble, et de grouper chaque type flexionnel autour de la forme verbale qui fournit à elle seule le plus d'informations sur l'ensemble.

THE OUTLOOK IN PHILOLOGY

By Sir WILLIAM A. CRAIGIE

THE Philological Society has now been in existence for more than a century, having been founded in 1830. If any of its presidents, during the first ten or twenty years after its foundation, had ventured to forecast the future course of philological studies, even his highest expectations would have fallen far short of what was actually accomplished even before the Society had reached its jubilee. To realize this it is only necessary to consider briefly the state of philological knowledge at that time in a single field, that of English and the other Germanic languages. (I venture to say *other* Germanic languages, although I have at times been taken to task by correspondents who draw my attention to the fact that in any English dictionary the words of Germanic origin are greatly outnumbered by those from the Romanic and classical tongues.) What means for the exact study of Old and Middle English were available to the scholar or the student in 1830 or for twenty years afterwards? Anglo-Saxon texts had been printed at various times from the sixteenth century onwards, and a few scholars had acquired a fair, or even good, knowledge of the language, especially of the prose; but the scientific study of Anglo-Saxon grammar and phonology was only just beginning, and was not put on a sound footing until some forty or fifty years later. The most modern dictionary was that of Bosworth, dating from 1838 and not fully replaced by the later edition until 1898, and by the Supplement finished in 1921. In Middle English a fair number of texts were available in print, but only a few in a reliable form; the grammar and phonology had not yet been studied, nor the dialects distinguished, and no dictionary was available until the appearance of Halliwell's two volumes of *Archaic and Provincial Words* in 1847. It was not till 1863 that Herbert Coleridge's modest *Dictionary of the First, or Oldest Words in the English Language* was

published by the Philological Society. Speaking generally, one may safely say that some fifty years had passed from the foundation of the Society before English philology was set on a firm basis, and I need not remind you how much of this progress was due to the Society itself and to its members. One has only to look at the names which appear in the past volumes of the *Transactions* to be reminded of how much we owe to only a few of these, to Furnivall and Morris, Skeat and Sweet, Murray and Bradley.

The philological study of English naturally implies some study of the older stages of the related languages. Here again the scholar in the middle of the nineteenth century was still imperfectly equipped. To take only one example, it was only with great difficulty that he could acquire a competent knowledge of Old Norwegian and Icelandic, so essential for the study of the Scandinavian element in English. Some grammars and dictionaries existed, but mainly in foreign tongues, and it was not till 1874 that the Oxford University Press published the final parts of the *Icelandic-English Dictionary*, which has not yet been superseded, and is now almost unprocurable. This is only one of the many dictionaries now essential to every student which were not even begun when the Society was founded, such as the *Deutsches Wörterbuch* which began in 1854, the dictionaries of Middle and Modern Dutch, of Middle Low-German, of Middle Swedish, of Older Danish, and many more of lesser range, but each valuable in some respect.

This brief survey will make it clear, I imagine, that no president of the Society in its early days would have had any chance of being a successful prophet if he had tried to forecast what might be achieved by philologists in the years that then lay ahead. I realize that I should be no more likely to anticipate the future correctly if I attempted to discuss the *Outlook in Philology* on these lines, nor is it my intention to do so. What I had in mind in choosing this subject was that it

might be desirable to take stock at present of what was already in course of being done, but had been interrupted or delayed by the unfavourable conditions of the past five years, and to point out certain difficulties which are likely to affect the coming, and to some extent even the present, generation of philologists. Beyond that I shall only touch slightly on some lines of research which might profitably be pursued by those whose task it will be to keep the study of philology alive and progressive.

I shall begin with the field with which I am most familiar and with which every philologist is more or less concerned—that of lexicography, and first of all that of English lexicography. As long ago as April, 1919, at a meeting of this Society, I suggested that the future of English lexicography lay in the making of separate dictionaries for the several distinct periods of the language—that there ought to be (in addition to Old English) a comprehensive dictionary of Middle English, another of Early Modern (or what Professor Skeat called Tudor and Stuart) English, still another of the Older Scottish Tongue which covered both of those periods, and finally one on a large scale of the modern language from 1700 to the present day. My proposals were so far carried into effect that the compilation of the Middle English and Early Modern dictionaries was undertaken by American scholars with considerable assistance from research funds and from some of the universities. Unfortunately, the plans to a certain extent miscarried, and it was not until five years ago that the Middle English dictionary seemed to be in a fair way to become a reality. Then came the war, making further progress difficult, and entirely blocking the possibility of beginning to print such copy as has already been prepared. The Early Modern dictionary is even more in a state of suspended animation, and when it may be revived is quite uncertain. The Older Scottish was more successful, and the publication of this in parts began in 1931, but since the ninth part (ending accidentally with the word DULL) appeared in

May, 1940, it has been beyond the powers of the Oxford University Press to produce another part, although all of it is now in type. As this only goes to the end of E, the prospect of my being able to finish the work at an early date is obviously not a bright one.

When I proposed the "period dictionaries", as the late Mr. Wharton aptly named them, there was one which I had not thought of, but which is the only one that has actually been brought to completion, viz. the Dictionary of American English on historical principles. It was well that this was so far advanced before the United States entered the war, otherwise this also might have stopped in mid career and have been indefinitely suspended.

From this brief summary it will be seen that in respect of lexicography the student of English philology is only in a very slightly better position than he was five years ago, and that it is impossible to say when the situation will improve. Plans were also being made by some American scholars for a new dictionary of Anglo-Saxon (or perhaps it might be *Old English*). I have seen no mention of these plans of late, but I imagine they are also in abeyance, and that for a good long time to come Bosworth-Toller will hold the field, and, after all, supply as much information about the Anglo-Saxon vocabulary as most students want, while the few scholars who ask for more can usually find it for themselves.

In at least two related languages the chances of new dictionaries being produced have certainly been greatly lessened by the war. The North Frisian dialects, for which written and printed evidence is scanty before 1900, had recently become a subject of interest to the Frisians themselves; several of the dialects were being more extensively used both for prose and verse, and there was much collecting of words and phrases in the various localities. It was intended that this work should culminate in a combined dictionary of all the dialects, but whatever progress was made with this, it can hardly have been carried much further during the past

five years. This is all the more to be regretted as the Frisian-speaking population was already rapidly diminishing, and the evacuation of some of the islands is certain to hasten the process of decline and final disappearance. It will certainly be difficult after the war to make the record of these dialects as perfect as if the work could have been completed in peaceful times.

Norwegian scholars had also been planning a comprehensive dictionary of modern Norwegian. How far the preparations for this had been carried I do not know, but even if the material collected for it has not been destroyed (which is not impossible ¹) several years have already been lost, and several more may pass before it can be resumed. It will certainly be a long time before the student of Norwegian can dispense with the necessity of using a number of different dictionaries to discover all that he may want to know.

I have already mentioned how the English philologist of last century was at a disadvantage with regard to Old Norse and Icelandic until the publication of the dictionary commonly known as Cleasby-Vigfussion, a designation which is correct so far as it goes, but does not do justice to the Icelandic scholars who worked for Cleasby in Copenhagen and whose share in the work is so ungenerously disparaged in the Preface and the Life of Cleasby. (The mistakes in the dictionary, however, some of which have led good scholars astray, are mainly Vigfusson's own.) In addition to Cleasby-Vigfusson, the student who is acquainted with Danish can also have recourse to the second edition of Fritzner's *Oldnorsk Ordbog*, completed in 1896, and the large dictionary of modern Icelandic by Sigfús Blöndal and his wife, published in 1920-4. I mention these, however, merely to lead up to a matter of some importance with regard to the compilation of the larger dictionaries, to which I shall come in the next part of this paper. Icelanders have for some time thought it unbecoming

¹ At the meeting I was glad to learn from Professor Sommerfelt that the collections were still intact.

that the only good dictionaries of their language should have the words explained in a foreign tongue. To remedy this, plans have from time to time been made, and material collected, for the compilation of an all-Icelandic dictionary, but so far the lexicon has not materialized. Just before the war broke out, the task of providing one was entrusted to Stefán Einarsson at Johns Hopkins University in Baltimore. What progress he has made I do not know, but I hardly think that he can have devoted his whole time to such work during the past two or three years. In Reykjavík also some are planning a dictionary of later Icelandic, from the fifteenth century onwards.

Now, all such designs are admirable, and philological studies would gain greatly by their accomplishment. The unfortunate thing is that they are so apt to break down on two accounts—*time and money*. It is safe to say that every estimate of the time it will take to compile a large dictionary of any living language, or of any language with an extensive literature, is certain to fall far short of the mark. The Society's own dictionary, the *O.E.D.*, is a case very much in point. Not one of those members who in 1857-8 bravely decided to make a completely "new English dictionary" could have dreamed that the mere collecting of material would go on for twenty years, and still less that the converting of that material into a dictionary would take no less than fifty. *Ten* years was the original estimate for this, and I have observed on more than one occasion that ten years is what Plato called "the lie in the soul" of the optimistic lexicographer. When Professor Dahlerup planned his dictionary of modern Danish he came to Oxford to see the methods employed in making the *O.E.D.* He had fixed on ten years as the time that would be required for the work. We assured him that he could not do it in that time. "Oh, but I must," he said, "I have a contract with the publisher to that effect." We replied that it did not matter how many contracts he had, he would *not* do it in ten years. He was not convinced, however, that his

estimate was too sanguine. Eighteen years later he produced a specimen of the letter A. I am not certain that the work was finished before the war ; it may have been.

In 1923, when I was in Prague, I was shown the elaborate methods which were being employed in collecting material for a dictionary of modern Czech. My comment was that if those methods were adhered to they would end in producing such a mass of material that it would be impossible to digest it in any reasonable time. Naturally my views did not carry conviction ; it was only a dozen years or so later that their truth became obvious, and I was informed that a smaller dictionary than had originally been planned would now be produced, and that the first part of this might be expected within a year. If it was, and if any others followed it, it is too much to hope that the work is going on now. Even the material may no longer be in existence.

From these instances, and others which I might cite, there are two lessons to be learned. The one is that it is wiser to over-estimate rather than under-estimate the time that such work will take. The other is that every device must be used to reduce the amount of work required to convert the material into printer's copy. Unless the most practical methods are employed from the very beginning and all through the work, there is every chance that the generation which sees the dictionary begun will not see it finished, and that philologists will for many years be deprived of information which they might otherwise have had.

Judging from the instances I have given, and assuming that conditions are no more favourable in other fields of language study, I think it safe to predict that in respect of lexicography those who engage in philological studies for some years to come—ten or fifteen, or perhaps more—will not be any better off than they are now. Will they be better off in other respects ? I must say that this seems to be very doubtful, when several things are taken into account.

In the first place we have to reckon with the tendency in the universities to devote more and more attention to the physical sciences and other lines of study and research which have a practical value. This not only tends to lessen the proportion of students who engage in language study, but also to divert to the practical subjects an increasing number of scholarships and fellowships, thereby reducing the number of those who can afford to remain on the 'learned side' of university work. There is little prospect at present of linguistic research being provided for on any scale which would make it a favourite subject; the tendency in fact is in the other direction. Nearly twenty years ago the General Education Board of New York (one of the departments of the Rockefeller Foundation) embarked on a scheme of subsidizing research in the Humanities, and did so on a liberal scale for some years, when it decided to withdraw the support entirely, and reserve the funds for more practical purposes. The decision was really not surprising, considering the nature of many of the research projects and the meagre results that as a whole came out of them. There is, I am convinced, no probability that a similar experiment will be tried in this country. We must, therefore, I believe, be prepared to find that the philologist in the immediate future will have to find his main (if not his only) reward in the pleasure and satisfaction which his work gives to him.

This, however, brings with it a difficulty which is steadily increasing. Members of the Philological Society at the time of its foundation, and for quite a number of years afterwards, could acquire most, if not all, of the important books in their own subject without having to spend much of their income in buying them. And even when these began to increase in number, the sum annually required to keep pace with them was not beyond the means of most. To-day, the situation is very different. No young philologist, except by some very fortunate chance, can immediately acquire all the books *and periodicals* already published which are essential

for the successful prosecution of his studies. If his line is English of the older period, he has neither the means to buy, nor the space to hold, all that has now been printed of Old and Middle English, to say nothing of such necessary auxiliaries as the *Oxford English Dictionary*. More and more he must rely upon the university or college library to provide these for him, and the use he can make of them is often limited by the time he can spend in the library. Even professors of English sometimes hesitate to spend as much as they would have to do to acquire all that they ought to have, and it is at times possible to see that errors they have fallen into are entirely due to this cause. The only way to obviate this natural tendency to economize on books, and rely on the library, would be for colleges and universities to adopt the rule that part of a professor's salary would only be paid in books. It is quite certain that every professor would take care that he got all he was entitled to.

In respect of library facilities the American professor very commonly is at an advantage compared with one in this country. He has a room, with his own books, in one of the university buildings, with easy access to a departmental library or the general library of the university, and usually with unlimited powers of borrowing from these. He is thus able to pursue a course of study more fully and with less expenditure of time than one who has to work at home and use the university library only when he can get to it. That is one reason why articles in American learned journals frequently present such an array of references to books and articles dealing with the subject or the special point under consideration.

I have already said that the young philologist cannot possibly acquire for himself all the periodicals which would be useful to him. Those periodicals also create for him a difficulty of another kind. Some of them have already existed for many years, and run to a large number of volumes, while new ones are being steadily added. It thus becomes more

and more difficult for the scholar or student to discover whether, and when, and where, articles may have appeared in these which would supply him with the information he seeks and prevent him from doing over again work that has already been done. Obviously a superabundance of such sources may be at times a hindrance to further study, but the real danger lies in the impossibility of an exhaustive search even in a well-furnished library. In some subjects, of course, the difficulty will be greater than in others. When the Anglo-Norman Text Society was being founded I went through the bibliography in Vising's *Anglo-Norman Language and Literature* to see how many texts had already been printed. The number was larger than I expected, but I found that they were so scattered, and so many of them in foreign periodicals or the proceedings of foreign societies, that a considerable proportion of them could be found in this country only in such libraries as the British Museum or Bodleian, if even there.

As an example of this I may just mention that the latest and best edition of the Anglo-Norman life of St. Edmund appeared in 1935 in the proceedings of the Swedish learned society whose publications bear the cumbrous title of "Göteborgs kungliga vetenskaps- og vitterhets- samhälles handlingar". Here it is bound up in one volume with two articles of purely Swedish interest (the one historical and the other biographical), and a third on the formation of nouns in Indo-European. Anyone not a member of the Society might well be excused for not discovering the edition for some years after it had appeared, and might have some difficulty in procuring a copy of the volume containing it.

Assuming, however, as we assuredly may, that philologists will continue to find new subjects on which to write, the next question to be considered is what prospects there are, in the years immediately ahead, of getting articles or books into print. No doubt, in this country and in the United States, such philological journals as already exist will continue to be published, so that there may not be much (if any) difficulty in getting articles printed as soon as printers and

paper become abundant again. With books the case may be different. We must bear in mind the leeway that all publishers have to make up through the loss of time during the past five years, and the actual destruction of stocks, as well as the great probability that to most of them other kinds of literature will seem more likely to be in demand than philological studies. It will, I imagine, have to be a work of exceptional merit, and possibly of some interest to others than philologists, that will tempt any publisher for some years to come.

In the list of Spring Books announced by the Oxford University Press there are twenty-three headings (Africa, Ancient World, Art, and Archaeology, etc.), but Language or Philology are not among them. The University of Chicago Press is equally silent on these subjects. In a recent "select list of new and forthcoming books" there *is* a heading, "Literature and Philology," but under this I find only three entries for the second of these. Two are new editions of a Russian Dictionary and Grammar, for which one can see good reasons. The third is a work entitled *The Loom of Language*, which ought to be a work of importance, judging by the note which describes it in these words: "The historical drama of the evolution of human speech on a planetary scale provides a theme which brings to life the bones of grammar."

There is also the question to what extent and how soon the philological journals on the Continent will recover from the effects of the war. The joint contribution which these have made to philological studies is so great that any reduction in their number, or delay in their revival, will certainly retard progress in many lines. We may, I think, anticipate that for some years to come the countries that have suffered most from the war will have more necessary work to do than to pursue the study of philology to the same extent as before.

One factor which has been steadily increasing the burden of the student of philology for some time past may now be mentioned. For about a century now, but in some cases

much more recently, various minor language areas in Europe have been coming more and more to use their own language not only for popular or general literature, but also in scholarly and scientific works. Until fairly late in the nineteenth century it could safely be assumed that any important philological work would be written in one of the better-known languages—in English, German, French, or even Latin. While this still holds to a considerable extent it is no longer to be depended on. Philological as well as other scholarly or scientific articles and books may appear in any language which has been sufficiently cultivated to admit of being used for the purpose. So long as the language belongs to the Germanic or Romanic group the average philologist may be able at least to get the general sense of what the writer has to say—though Icelandic on the one hand and Roumanian on the other may prove difficult without some serious study—but if a Slav, or Hungarian, or Finn chooses to write in his own language there are few who can make themselves directly acquainted with what he has to say. I mentioned Icelandic because a case in point has just come into my hands. The University of Iceland has recently issued, as its Annual for 1940-1, a work by one of its professors, Dr. Alexander Jóhannesson, with the title “On the original language and home of the Indo-Germans”. This, however, gives a very imperfect idea of the contents of the work. The writer accepts in full the view, so strongly put forward by Sir Richard Paget, that language originated in gestures, and that certain sounds are closely connected with these. The verbal roots, which according to this theory were developed from those sounds, can be clearly traced throughout the Indo-Germanic languages, some of which have preserved more of them than others; in this respect Greek stands highest, and next to it comes Icelandic, which thus has a larger primitive element in modern use than Lithuanian, or the Celtic tongues, or Latin. The greater number of the 160 large pages of Dr. Alexander’s work are devoted to exhibiting this feature of Icelandic in great detail.

Now it seems to me that any philologist who is interested in this theory of the origin of speech would naturally wish to read this elaborate illustration of it, but even some knowledge of Danish or Swedish will not take anyone far towards ability to read modern Icelandic when employed in a work of this nature.

There is a question regarding the future of philological studies which can only be a matter of conjecture at present, but which must be taken into account in this outlook. Is it certain that in the years to come philologists will continue to be interested in the main in the same family or families of languages and will study these on the same lines as hitherto? Ever since scientific philology began certain definite lines have formed the basis of most of the research—phonology, phonological changes, word-formation, comparison of the forms in the various languages—and these to a great extent limited to the Indo-European family. Not only have all the main languages been examined and re-examined in these and other respects, but the sub-divisions have also been minutely studied; studies of the various dialects must now amount to hundreds, and are certainly far too numerous for any one philologist even to read, to say nothing of assimilating and remembering their contents. It seems to me doubtful whether indefinite continuation of this line of study is likely to lead to anything new. In place of accumulating more and more details by similar studies of dialects not yet thoroughly examined, the material already available might become the basis for an endeavour to arrive at some general conclusions on the origin, nature, and content of dialects. There is, for instance, the problem why dialects develop to a greater extent in some languages than in others—why there are more dialects in a few square miles of Slesvig than in hundreds of square miles in Russia; why each valley in Norway, and each island in the Færøes has a dialect of its own, while Iceland with a population mainly of Norwegian origin has no real dialect variations. Or there is the question why dialects of

different languages develop the same phonetic changes in contrast to the standard language from which they deviate. Again, we have innumerable vocabularies, large and small, of separate dialects, as well as more comprehensive works like the *English Dialect Dictionary*, but we still lack any work on the general nature of dialect vocabulary, on the extent to which it tends to retain words which have become obsolete in the standard language, and on the other hand to create new words, or at least to employ words for which no origin can be found. Comparative philology naturally is concerned with those words which are common to different languages, or to those words which are not limited to one dialect, but by confining its attention to these it leaves out of account the large number of words which are peculiar to each language or each dialect. It seems to me that here is a line of philological study which may become quite fruitful of results, and one in which the evidence from modern dialects might help to show how similar developments took place in the older languages.

In a country with numerous dialects the range of dialect words also deserves more study than it has received. Linguistic atlases, where they exist, help to supply the details for this, but more is needed before the main lines can be clearly seen or their significance become obvious. A reasoned account, for example, of the Scandinavian loan-words in English dialects would distinguish between those which are purely local, those with a wider range, and those which are known over the whole area, and would endeavour to discover the reasons for the differences.

It is no doubt much more difficult to deal in this way with words than with sounds, but it would be a pity if philology were to become entirely restricted (as it rather tends to be) to phonology and morphology.

Even in those subjects, however, instead of a further accumulation of details, it would be useful if those already collected were more closely studied to see whether some

general principles might not be deduced from them instead of being content to accept the same or similar phenomena in different languages or dialects merely as isolated facts, obvious but unexplained. Why, for example, Bulgarian and Roumanian have the postposited article in common with the Scandinavian languages. Why some languages, even within the same group, show extensive palatalization while others do not, as e.g. Swedish, Norwegian, and Færøese in contrast to Icelandic and Danish, or Lettish as compared with Lithuanian. Why the double *ll* of Latin (as in *bellus*, *mollis*) has become *dd* in Sicilian, and the double *ll* of Old Norse has had the same development in Norwegian dialects. Why all the Germanic languages except Icelandic and Færøese have voiced the initial *p* in the demonstratives, giving *ð* in English and *d* in the other languages. Why entirely unrelated dialects agree in converting the long *e* and *o* into the diphthongs *ie*, *ia*, and *uo*, *ua*, both of them occurring in English dialects in the same word and giving the variants *steean* and *stuon*.

No doubt a fool can ask more questions than a wise man can answer, but the wise man might learn something by trying to discover whether a few questions of this nature admit of being answered.

One factor which may affect the future of philology is that there may be a considerable change in the languages to which the majority of philologists direct their attention. The Indo-European languages have had a long run, and it would not be surprising if others began to receive more notice than they have done hitherto. In the United States not a few scholars have for some time past made special studies of the various native languages of America, and have sometimes carried over ideas gained from these into general works on the nature of language. Here, however, as in many other special fields, the development of such studies is limited by the number of those who are attracted by them or who by circumstances are brought into direct contact with the language or languages involved. There is every probability

that the number of these will increase in the coming years. The expansion of the British dominions, and the growth of British influence in Africa and Asia, will lead more and more Britons to acquire a knowledge of various languages of these continents, and among these there will certainly not be wanting, in the future, as in the past, some who not merely acquire a language for practical purposes, but will make it a subject of real study, and become able to enrich philology from their knowledge of it. The war has undoubtedly opened up great possibilities in this respect. How else would so many young Britons and Americans at the present time be acquiring a knowledge of Japanese? And who knows how many strange tongues are becoming to some extent familiar to men who otherwise would never even have heard of them? Some of these may yet take to philology, and starting from a new basis originate a line of study as full of interest and of discovery as those which have hitherto been pursued. In the meantime the question is how soon we may expect some recovery from the setback due to the war, of which I have given only such examples as come within my own knowledge. No doubt some of the members present will be able to add to these from the special studies with which they are familiar.

THE CHRONOLOGY OF SLAVONIC¹

By W. J. ENTWISTLE

FOR at least three thousand years the Slavonic common language developed before the oldest of its progeny was put on record as Old Bulgarian. Lithuanian and the other Baltic languages remained undisclosed for half a millennium more, and when they came to light it was as modes of speech for the most part unaltered since a remote antiquity. The intervening centuries must have been largely inert. The Slavonic common tongue, on the other hand, has an archaic air which is often illusory. Even in our own time the various Slavonic speeches have seven cases and a verbal paradigm based on aspect, along with copious remains of the dual number; they make use of vowel-alternation according to symmetrical schemes, and their syntax is notably simple. It would be very easy to suppose that these conservative appearances in the Slavonic structure correspond to ancient elements of the Indo-European parent tongue; but it would be highly misleading so to conclude. There has been at work a steady reconsideration of every grammatical element so that the same grammatical purpose is met by new means, or old elements have new functions.

Let us consider, for instance, verbal aspect. Aspect and time are present in all verbs in all languages, since they are necessary to the verb as phenomenal. Languages differ, however, whether to express the aspect by the paradigm and leave time to circumstantial indications in the sentence, or whether to base the paradigm on time and find periphrastic formulæ for the aspect. There are, of course, also languages like English which express both time and aspect circumstantially, but we are speaking of the historical development of the Indo-European family. Now this development has

¹ I have to express my indebtedness for valuable criticisms to the Editor and to Mr. W. A. Morison.

been from a formal recognition of aspect to a formal recognition of time; and consequently the Slavonic languages, with their formal insistence on aspect, have an air of archaism. But this is illusory. The intervening states have been as follows:—The Indo-European verb distinguished between the perfective (aorist) and the imperfective aspects by means of vowel-mutation. The imperfective Gk. ἔχω and perfective ἔσχω (√*seǵh- *sǵh-) were at first no more closely related than either to the noun ὄχος (√*soǵh-). In Slavonic they have sometimes come together in the paradigm of one verb, and sometimes given separate verbs. As the distinction was not one of time, the Slavonic present tenses show both the *e*- and *zero*-grades of the root, as also the *o*-grade in denominatives. But the sigmatic aorist imposed the notion of paradigm since it established an obvious relation between the aorist and the present (Gk. λέγω ἔλεξα), and the aorist, as a perfected non-present, became associated with the past. Slavonic, therefore, retained the old perfective/imperfective vowel-mutation without distinction of aspect (except in so far as inherent in each verb), together with an asigmatic and two sigmatic aorists denoting completed action in past time only. To secure for past time an imperfective aspect it was necessary to invent an imperfect tense. This device came into use at some time when it was still possible (as it has never been in the historical era) to add suffixes directly to a root. The Slavonic *bě-achŭ* (*bhē- + ēsom) is of the same vintage as Lat. *fu-eram* (*bhū- + esam). A new device, however, was coming into existence in the early centuries of our era to express the perfective/imperfective distinction. The simple verbs tended to be imperfective, and their derivatives perfective; and prepositional prefix thus became a sign of perfectivity. The suffix *-va-* could be used to provide imperfectives for these prepositional perfectives. Out of this variety of resources new paradigms based in aspect duly arose, since among the prepositional derivatives some obtained no additional significance from the preposition,

but served merely to denote perfectivity, and so alternated with the imperfective simple verb. Gradually they entered into association; the Slavonic conjugation became again one of associated pairs of verbs formally indicative of aspect. The Common Slavonic imperfect meanwhile broke down formally, since it was too subtly distinguished from the aorist. It has been eliminated in the East and West Slavonic languages (except Wendish), and the aorist also has disappeared, since it expressed nothing but what the *l*-participles could supply.

Thus, in the matter of the perfective/imperfective discrimination, it is possible to say that both Indo-European and the modern Slavonic languages express differences of aspects in a formal way by means of pairs of verbs, leaving differences of time largely to the syntax of the sentence; but it is clear that Indo-European and Slavonic differ in the formal criterion (vowel-mutation/prefixation), and they have only achieved their present illusory resemblance by passing through stages in which the temporal discrimination was more important than the aspectual.

Rather similar inferences would be drawn from declension. Despite its apparent archaism the Slavonic declensional system has suffered a complete overhaul. Firstly, the decay of case-endings has led to a considerable regrouping of types; secondly, the principle of identifying gender with declension has been more and more potent. The latter has worked itself out largely in the historical period, but it had already produced effects when Old Bulgarian came to be recorded. At no time within record has it been possible in Slavonic, as in Indo-European, for any declension to have all genders among its constituent nouns. The decay of case-endings is mostly prehistoric, but it would seem to depend on the reduction of nasal *u i* to *ũ ĭ*, and the identification of gender and declension on the confusion of extra-short vowels of different origin, during the Middle Proto-Slavonic Period.

The Slavacist's problem is thus defined. During three thousand years changes have been occurring in the languages

he studies while they were yet one. They have involved a complete reshuffle of the linguistic material, and so cannot be ignored. They have been due to different tendencies operating at different times, and it is an error to refer a given tendency to a wrong time. These trends also have not been uniformly progressive, but, as the consideration of aspects shows, have followed a sometimes re-entrant course. The Baltic scholar deals with highly conservative material; but the conservatism of Slavonic is misleading. The problem of chronology becomes highly important for the Slavist, and yet the whole history of Common Slavonic lies outside the historical record. How is he to proceed?

There are two possible sources of evidence. Internal analysis of the facts of language, and especially of the successive palatalizations of velars, produces a relative chronology in the form of a string of phenomena, the existence of one set of which excludes the simultaneous operation of other tendencies. These strings of relatively dated items do not always exclude the possibility of another order for some events. The emergence of the velar fricative *ch* is one of the oldest facts of the language, but the development of *š* from it before front vowels might have occurred at almost any time. Similarly the vowel-sequences worked out by Ljapunov are, at points, only conjecturally associable with the sequence of palatalizations.

On the other hand, external evidence is available from the time of Tacitus, so that it is possible to know with whom the Slavs were in contact and on what terms. From that date the development of German can be followed, and by comparison with German, the history of some Slavonic features. Finnish and Baltic evidence is also available. Whether we can learn anything of the Slavonic tribes in the centuries before Christ is more doubtful. The testimony of Herodotus is open to various explanations.

I. *Indo-European distinctions.* There is some evidence for chronological discrimination in common Indo-European.

The oblique cases of the plural and dual show phenomena in *-m-* in Germanic and Slavonic, but in *-bh-* (> *-b-*) in Sanskrit, Iranian, Latin, Celtic, and (to some extent) in Greek. It is doubtful whether we can speak of either the *-bh-* or the *-m-* forms as true flexions, in view of the fact that the Gk. $-\phi\iota(\nu)$ is a free postposition, like Gk. $-\delta\epsilon$ and $-\theta\epsilon(\nu)$. The evidence of the several languages is so conflicting that it is not feasible to posit separate original forms for each of the three cases, but the wider distribution of *-bh-* would seem to suggest that it developed earlier than the flexions in *-m-* in the imperfectly differentiated dialects of the common stock.

II. *Satem*. The *satem*-innovations are the first of a long series of palatalizations which have given a characteristic outline to the Slavonic speeches. The *centum*-languages would not provide evidence of any differentiation of velars, nor is such differentiation more than a transient feature in the history of most known languages. However that may have been, a series of changes occur in the post-palatals $*\acute{k} *g *k^h *gh$ which bring these sounds to the mid palate ($\acute{c} \acute{s} \acute{j} \acute{z}$ etc.) or beyond the palate to the dental region (*s z*). In the subsequent development of these sounds Slavonic agrees most closely with Avestan: Slavonic *slovo* 'fame', *zobŭ* > R. *zub* 'tooth', *vezetŭ* 'transport', Avestan *sravah* 'word', *zantuš* 'tribe', *vazaiti* 'transport'.

III. *Slavonic and Indo-Iranian*. The development of IE. $*s$ to cerebral \acute{s} (as a preliminary stage of further evolution) under the influence of *i u r k* is a particular feature of the Slavonic and Indo-Iranian groups. It is thus post-Indo-European in date. Before 1500 B.C.

In the above paragraph this comparison is made with, so to speak, traditional brevity. If it be elaborated it becomes highly complex, as befits such ancient history. Lithuanian agrees with Slavonic in some instances (e.g. Lith. *viršùs* 'top', CSlav. *virchŭ*), and disagrees in others (e.g. the locative plural). In Slavonic the evolved forms have extended by analogy to words in which *i u r k* are not involved. In the

Indo-Iranian group of languages, that of the Ashkun Kafirs gives various discrepant results (see G. Morgenstierne, 'The Language of the Ashkun Kafirs,' *Norsk Tidsskrift for Sprogvidenskap*, ii (1929), pp. 192-289). In this language a normal *s* is found after *u*: Kafir *dōs* 'yesterday', Waigel and Kati *dūs*/Skr. *došām*, Waigel *tūs* 'straw', Kati *tyūs*/Skr. *tuša*. It is palatalized to *š* after *i*: Kafir *niši*- 'sit down'. After original *r k* the cerebral *š* is found: Kafir 'ašā 'bull', Kati *aš*/Skr. *ṛṣabha*-; Kafir *šū* 'six'/Skr. *ṣaṣ*. The effect of this is to break up the Indo-Iranian unity upon this point, and to raise the possibility that the *i u r k* rule may have operated separately in Slavonic and Indo-Iranian, long after contact had been lost.

The highest common factor is 'cerebral' (cacuminal) *š*. It is from *š* that the other values (*š* and *χ*) derived in prehistoric times, as they do historically in the Spanish sequence: Lat. *saponem*, MedSp. *xabon*, ModSp. *jabón* 'soap' (alveolar > palatal > velar). There are extant in present-day Spanish three varieties of the alveolar sibilant, viz. the normal dorso-alveolar *s* of Andalusia and South America with the tip of the tongue resting on the lower teeth and the friction between the gums and the upper fore-tongue; the coronal *s* with the tip of the tongue raised to the upper teeth, and the friction between the gums and the upper surface of the tip; and cacuminal ('cerebral') *š*, with the tip of the tongue raised to or behind the gums, and the friction at the tip or its under surface. In the development of Spanish, *s* was dorso-alveolar or normal in Latin, but had become cacuminal *š* by the eighth century and remained such until the mid-sixteenth century. After 1550 it relapsed to normal *s* in Andalusia and South America, and in Portugal. Cacuminal *š* is, in fact, a highly unstable sound, with a tendency to develop to the palatal *š* or to relapse to normal *s*.

Now, to cause *i u r k* to modify normal to cacuminal *š* involves so many coincidences of development as virtually to eliminate the thesis of chance agreement. The four causes

do not constitute a natural phonetic group. The two narrowest vowels (*i u*) might tend to keep the tongue elevated, with the tip away from the lower teeth, probably in the coronal position. The alveolar vibrant *r* would keep the tongue-tip upon the gums, as the hollow unvibrant *r* does in English, and so give cacuminal ʃ . The velar *k* involves retraction of the whole tongue from the front of the mouth, with the possibility of coronal *s* or cacuminal ʃ . But it is clear that at least three separate phonetic causes have converged in the *i u r k* rule; and such a convergence can hardly be found in both Slavonic and Sanskrit fortuitously. They become four if we agree with Morgenstierne that *u* 'velarized' the original *s* (I am not sure how one velarizes an *s*; the velar sibilant is χ), when *i* palatalized it to ʃ .

This Kafir evidence is strictly of our own day, and has no history; nor is it subject to control. Morgenstierne remarks: 'It is not probable that Kaf. *us* is due to a regressive development of $\text{ʃ} > s$ as $\text{ʃ} < rs$ *rś* remain.' The argument would be convincing only if there were something in common between *u* and *r*, but, apart from voicing, they have nothing in common. It is tempting to suppose that the narrow vowels, operating as such, caused cacuminal $*i\text{ʃ}$ $*u\text{ʃ}$, and that when $*i\text{ʃ}$ progressed to *iʃ*, $*u\text{ʃ}$ retrogressed to *us*. It is natural, as we have seen, for cacuminal ʃ to develop or relapse. The alveolar *r* and velar *k* kept the ʃ cacuminal. Or, alternatively, we would have to remember that each phenomenon has its own linguistic boundaries, which do not always coincide with even the biggest language frontiers. We should then assume that when Slavonic, Iranian, and Sanskrit had developed cacuminal ʃ as a result of convergent tendencies represented by *i u r k*, the remote ancestors of the Ashkun Kafirs shared in the movement only in respect of *r k*, and possibly of *i*. The Baltic languages are related to Slavonic, not as originally a united speech, but by close parallel development and mutual intercourse over the greater part of prehistoric time. A discrepancy, such as the Lithuanian hesitations over

this rule, can be accepted philosophically in Balto-Slavonic.

IV. *Slavonic and Iranian*. There seems to be good reason to believe that Slavonic remained in contact for some time with the Iranian languages after the withdrawal of Sanskrit to the south-east. (1) There is a group of very ancient words held in common: Sl. *bogŭ* 'god', *vatra* 'fire', *socha* 'kind of plough', *kurŭ* 'cock', *sekyra* 'axe', *toporŭ* 'axe', R. *sobáka* 'dog'. While Sanskrit parallels are, for the most part, excluded from these words; the Iranian parallels are not found only in Scythian, the nearest known Iranian tongue. For R. *sobáka* the parallel is Median *spaka* (cited in Herodotus, i, 110). For some of these words it might be possible to argue mediate, not immediate, transmission, e.g. Finnish *tappara* between Persian *tabar* and Sl. *toporŭ*, but it does not seem possible to do so in the case of *bogŭ* 'god'. Niederle (*Manuel de l'antiquité slave*, ii, p. 136) cites Skr. *bhágas*, OPers. *baga*, Phrygian *Zeús Bayaĩos*, Arm. *bagin* 'temple'¹ (and might have mentioned the obsolete Lith. *bagas* 'bread') to conclude that these words 'ne sont que des formes diverses de l'héritage commun légué à la branche de *satem* par l'indoeuropéen'. That might be true and yet not invalidate the curious semantic coincidence of OPers. *baga*, Sl. *bogŭ* 'god'. From a common meaning 'bread', the word developed as a religious epithet in Phrygian and Sanskrit ('divider of bread', 'blessed', 'rich', etc., cf. R. *bogátyj*), but only in the two languages did it oust the older terms for 'god'. (2) There is the further coincidence that the Slavonic and Iranian groups have carried to the same distance the evolution of the palatalized velars and of the aspirate occlusives. (3) There is also the curious parallelism in the use of a suffixed article. Meillet has cited from the Avesta (*Le Slave Commun*, p. 388) *stārəm yəm Tištrīm* 'the star Tištriya', cf. CSL. **dobra-jego otica* 'of the good father', Lith. *gėro-jo tėvo*. In each case the postpositive

¹ An Iranian loanword in Armenian (see *Bull. School of Oriental Studies*, viii, p. 538).

article is a weakening of the demonstrative IE. *jos.¹ In Rumanian one may say either *tatălui bun* or *bunului tată* 'of the good father', the suffixing of the article to noun or adjective simply depending on which comes first. The Slavonic and Baltic usage implies a steady usage of adjective before noun.

Though Niederle does not consider the special instance of Sl. *bogŭ*, OPers. *baga* 'god' to be significant, he has other reasons for positing a period of neighbourly development of Slavs and Iranians, and he concedes the force of proof to the list of Iranian loan-words.

This, however, gives us a date from external evidence. The borrowings are from the common Iranian stock, before differentiation had destroyed fairly free intercourse.² But the appearance of the Medes and Persians along the highlands overlooking Assyria is a well known event of the seventh century before Christ. Their loans to Slavonic must have taken place between 1500 and 650 while they were still in Russia, and when they gave to the *Danube*, *Dnieper*, *Dniester*, and *Don* names with the Iranian element *dānu* 'water'. Further, Šachmatov, studying the Iranian loanwords in the Finno-Ugrian languages distinguishes between two epochs (*Vvedenie v kurs Istorii Russkago Jazyka*, 1916, i, p. 35), from both of which the Slavs were excluded, viz. a common Iranian era during which Mordvinian *sazor*, Votjak *suser*, Finnish *sisar* 'sister' (cf. Skr. *svasar*), Mord. *azoro* 'lord', Zyrjenian *ozyr/ozér* 'rich' (cf. Skr. *asura*), Mord. *veřgas* 'wolf' (cf. Skr. *vykas*) were adopted, and a later purely Scythian period in which Mord. *lomaň* 'man', *eřdeks* 'oath' were taken from the Scythian ancestors of Ossetic *limān* 'friend' and *ard/ārd*. The conditions for a purely Scythian influence existed when Herodotus wrote his account of South Russia in the fifth

¹ It does not appear, however, that the pronoun was ever enclitic in Avestan. The parallel is not very convincing.

² Median *spaka* (< Indo-Iranian *šu-) implies differentiation within Iranian since other languages show *ss s šš š* under these conditions. Its passage into Slavonic must have been ancient, none the less.

century, and that is an additional reason for placing the Slavo-Common Iranian period no later than the seventh century B.C.

V. *Balto-Slavonic*. The Baltic and Slavonic languages have so many points in common as to suggest to some students the likelihood of an original unity, like that posited for the Indo-Iranians. Meillet was especially prominent in denying this thesis, which is not at all essential for explaining the facts. There are a certain number of things which cannot be reduced to a common minimum between them, but even they show a striking parallelism. In proportion as the case for unity is weakened the case for contiguity is increased. That two language-groups should develop on strictly parallel lines which do not meet in one starting-point implies a long period of common experience, doubtless overlapping the period described in the above paragraphs. (1) In vocabulary these resemblances are entirely convincing. (See R. Trautmann's *Baltisch-Slavisches Wörterbuch*, 1923.) In whole classes of common words, where substitution of a new for an old word has occurred, Lithuanian and Slavonic concur, as Sl. *železo* 'iron', Lith. *geležis*, Sl. *jezero* 'lake', Lith. *ėžeras*, and in such cases their correspondence is far closer than that of either to outside languages (Gk. Ἀχέρων χάλκος). These coincidences cover the realms of flora and fauna, apiculture, agriculture, parts of the body, etc. (2) In other cases the two language groups differ only by consistent preference for different suffixes, e.g. Sl. *-dlo*, Lith. *-klas* for names of instruments (Sl. **ordto*, Lith. *ārklis* 'plough'). In many instances the Lithuanian word represents an older stage of the Slavonic one. (3) The intonation-system is basically the same in both groups. In Lithuanian falling long tones have become rising, and rising longs have become falling; in Slovene and Serbo-Croat some qualities have remained unchanged under certain conditions, but there has been a number of displacements of tone. (4) These languages agree in identifying IE. **ō* **ǎ* through a probable **ā*; whence **ā̄* Sl. *a*, Lith. *o*, **ā̄* Sl. *o*,

Lith. *a* ; but IE. **e* did not fall in with *a* and *o* as in Indo-Iranian. The languages are associated in the treatment of IE. **k̂* **k̂h* **ǵ* **ǵh* (Sl. *s z*/Lith. *š ž*, Lett., OPrus. *s z*), and in the elimination of the aspirated occlusives. (5) They agree in declension (notably in identifying the genitive and ablative) and in the use of the suffixed article with adjectives. (6) They differ widely in conjugation, both as regards the aorist and the personal endings ; but they agree in abolishing the Indo-European tense-system in general, and the voices (the passive is made reflexive in both groups), while both have or have had a sigmatic future (only faint traces in Old Czech and Old Bulgarian), and have infinitives and participles formed on the same models (infin. in *-ti* < **-tēi*, participles with additional **-jo/ja-* suffixes in oblique cases and feminine). There are also some resemblances between them in the aspect-mechanism.

That there was a long period of Baltic and Slavonic community is evident from the above considerations ; but the difficulty is to say when or where. It is common ground that the Lithuanians are not likely to have moved, or moved far. It is also agreed that the primitive habitat of the Slavs must have lain in a region where there were yew and ivy (R. *tis*, *pljušč* are pan-Slavonic) but no beeches (R. *buk* is from Germ. *Buche*, Swed. *bök*). This gives the parallels Ösel-Kurland-Kovno-Vilno-Grodno-Kamenec Podolsk-Kišinev and Königsberg-Danube Mouths. But where between these lines ? According to Ptolemy (iii, 19) the Baltic was called the Slavonic Gulf and Slavs occupied its whole length : *Κατέχει δὲ τὴν Σαρματίαν ἔθνη μέγιστα οἷ τε Οὐενέδαι παρ' ὄλον τὸν Οὐενεδικὸν κόλπον*. Šachmatov argues that since the Slavs never lost sight of this sea they continued to use the original term (R. *móre*) in its original value. The Balts, lying inland, used it generally in the sense of 'lake' or 'mere' and that only near the Gulf of Riga, so that when the sea again came in sight a new word (Lith. *júrės*) was required. The Lithuanians were 'Riparians' (cf. Lat. *litus*) of the

upper Dvina and Niemen, while the Slavs occupied at first the lower course of those rivers towards the sea.

The advantage of this theory is that it accounts for the severance of the Slavs from both Mediterranean and Black Sea culture. They would be shut in to the Baltic area by the sedentary Lithuanians, and also by the relative difficulty of portage between the Western Dvina and the Dnieper. Here they might develop that primitive agricultural life which is attested by a large number of ancient words. A weakness of the theory is that it has no external support in archæology or in river-names; but as for the latter only the *Bereziná* and *Desna* are rivers with Slavonic names. If we were to rely on the rivers the Slavs would have had no lodging on earth.

Others have placed the seat of the Slavs further south. This has the advantage of answering to the first clear historical witness—that of Tacitus. Some would restrict the Slavs to Polesie (a savage region hostile to life) and the northern valley of the Dnieper. In such a location it is hard to see how any settled ways of life could develop, still less how a great people could multiply. Niederle extended the ground to the tract from Dnieper to Oder, and then restricted it to the quadrilateral of Narew-Vistula-Carpathians-upper Dnieper. The site is one which should have tempted its occupants, as indeed it did later, to descend the Dnieper in search of warmth and food, and it does not seem well suited for contact with the Baltic peoples. The testimony of Tacitus is discounted by the fact that he described the Slavs as in a state of violent agitation under Gothic pressure: *quidquid inter Peucinos Fennosque silvarum ac montium erigitur latrociniis pererrant* (*Germ.* 46). They had suffered German invasions, probably, since the time when the Bastarnæ (of whom the Peucini were a branch) had thrust towards the Black Sea in the third and second centuries B.C. It is possible that the German name given to them in Tacitus is due to their occupying ground formerly held by the Veneti.

Niederle harnesses to his theory the description of South Russia by Herodotus. The northern fringe of the Herodotean world is formed of (1) the *Neuri* on the headwaters of the southern Bug, with the Ploughmen Scyths lower down the Bug and extending to the Dnieper, (2) the *Anthropophagi* beyond a deserted space and east of the Dniester, (3) the *Melanchlæni* between Donec and Don, (4) the *Budini* beyond the Dnieper. About 570 B.C. the Neuri had wandered into the Bug valley from a country infested by snakes. They had dislodged the Budini, forcing them to take flight beyond the Cannibals and the Black-coats. Now the Cannibals are identified with the modern *Mordva* (Iranian *mard* 'man', **hvar*- 'devour'), and the Black-coats with the *Cheremisses*, both Eastern Finns. Šachmatov (*Vvedenie*, i, p. 38) says the *Neuri* must have been Western Finns, the ancestors of the modern Suomi, Estonians, Vepses and Karelians; and thus interposes a Finnish bar between the Balto-Slavs and the Black Sea region in the fifth century B.C. Niederle, however (*Manuel de l'Antiquité slave*, i, p. 174) says: 'il n'est pas douteux qu'ils se trouvaient dans la région que nous considérons comme l'habitat primitif des Slaves, et plus exactement dans la partie orientale de cet habitat: nous pouvons donc, avec la plus grande vraisemblance, les considérer comme Slaves.' The Budini, displaced by the Neuri, are stated to have been fair or ruddy, and Niederle claims them on the ground that their name is formed with what appears to be a Slavonic suffix. He was also disposed to regard as Slavs the Ploughman Scyths. Herodotus distinguishes between Scythian and the language of the Cannibals and Blackcoats (iv, 18, 20), but says nothing of that of the Neuri. Their habits were those of the Scyths, save for an annual shape-shifting, when they became wolves. This peculiarity suits Finns as well as Slavs.

The upshot of this is that we cannot be certain where the Slavs were located in the age of Herodotus. The Neuri, if not Western Finns, might still not have been Slavs. Were

the Slavs then so far south it would be a sign that the Balto-Slavonic community had dissolved.

VI. *Primitive Slavonic*. The first independent feature of Slavonic is the development of cerebral *ʃ to the velar fricative *ch*: loc. plur. Sl. **bodžěchŭ*/Lith. *výruose*. This is older than the first Slavonic palatalization, since it enters into that tendency alongside original **k* **g*.

VII. *Early Proto-Slavonic*. (1) This is marked by the first Slavonic palatalization whereby IE. **k* **g* and Primitive Slavonic **ch* became palatal *č*, *ž* (*dž*) > later *ž*, and *š* before *e i*: Sl. **vilkŭ* voc. sing. **vilče*, *bogŭ bože*, *duchŭ duše*.

(2) As the pronunciation of **ē* was probably very open, it easily became *a* by dissimilation from the off-glide of the palatal: Sl. *slyšati* 'hear' < **slyšēti*. This is an entirely mechanical change, and it is consequently impossible to say whether it happened hard upon the first palatalization or after a considerable lapse of time.

VIII. *Middle Proto-Slavonic*. (1) This period is marked by a number of vowel-shifts which lead up to the second Slavonic palatalization. Many of the items cannot readily be dated, but it is at least certain that the change of IE. **oi* **ai* to Sl. *ě/i* was necessarily antecedent to the subsequent modification of the velars before these vowels. (See Ljapunov on Kulbakin, in *Archiv f. slav. Phil.*, xxxiii (1912), p. 531.)

The series of changes is as follows: (i) IE. **on* **os* **ons* closed to **un* **us* **uns*, under the influence of *n* and *s*: Sl. **vilkus* **vilkuns*, cf. Gk. *λύκος* **λυκους* > *λύκους*; (ii) nasal vowels were created: Sl. **i* **u* **ī* *o/ā* *e*—perhaps at first in final position, as in Lithuanian—with loss of *n* and also *s*; (iii) *j* + back vowels gave *j* + front vowels: Sl. *je* < **jo*, *ji* < **jü* < **ju*, **jĭ* < **jü* < **ju*, e.g. Sl. *koňi* < **konjus*; (iv) Sl. *y ŭ ĭ* < **ū u i*, by shortening and change of place of enunciation from the back to the mixed order, as Sl. *synŭ* < **sūnus*; (v) diphthongs became monophthongs: Sl. **ū* **jū* **ā* **ī* < **ou* **eu* **oi* (**oi* **ai*) **ei*, and these lost their length; (vi) **æ* > Sl. *ě* and Sl. *i* when final, the former

under a rising tone, the latter under a falling tone, as Sl. **vīlcě* **vīlci* < **vīlkoī* **vīlkoī*; (vii) this *ě* became identical with Sl. *ě* < **ē*.

(2) The creation of the imperfect can hardly have been later than this period, which is the last to be wholly outside the historical record. The attachment of the auxiliary *(*j*)*achŭ* < **ēsom* to a bare verbal stem was a process which soon after became impossible. All later innovations took the form of attaching the auxiliary to an inflected part of the verb, usually an infinitive or participle. As the imperfect tense took its rise from a decay of the notion of aspect in verbs and a temporary ascendancy of the criterion of time, it would appear as if a middle date best suits this step.

The Middle Proto-Slavonic period comes down to the Christian era.

IX. *Late Proto-Slavonic.* (1) The characteristic mark of the period is the second Slavonic palatalization, whereby **k* **g* **ch* became dental *c* (= *ts*) *z* (= *dz*) > *z* and *s* (or *š*) in certain circumstances. There are two cases, and they are not contemporary. Authorities differ regarding the order, which is given by Vondrák thus (*Vergl. slav. Grammatik*, i, pp. 354-5): (i) after *ī* or *i*, when the vowel following the velar does not forbid: Sl. *otīci* (R. *otéc*) 'father', *ovīca* 'sheep' < **otīkŭ* **ovīkā*; (ii) before *ě/i* < **ai* **oi*: Sl. loc. sing. *božě* > *božě*, imper. 2 sing. *řīci* 'say'.

At this time a new supply of velars before front vowels (*e i*) was obtained by borrowing from the German, and these loanwords show the second palatalization: R. *knjaž* 'prince' < *kuningaz*. Now the German words filtered into Slavonic as the result of the German migrations in the first centuries of our era, and they carried with them certain elements due directly or indirectly to Roman civilization. Among these was the word *pěneži* 'penny, money'. The second palatalization continued to operate until after the conversion of the Goths, since Sl. **círky* 'church' < Goth. *kirihha* (sixth century).

(2) There must have been an increase of the grade of nasalization (from Jespersen's second to third grade), with the result that nasality was incompatible with any but the most open vowels (*ǎ ā*). Two nasals only survive in Old Bulgarian, and are evidently very open. Two also survived in Proto-Polish and in the twelfth century, but in the thirteenth they became one (*o*), and later diverged as two : *o*[*õ*] and *e*[*ẽ*]. It would appear, however, that the precise quality of these nasals was not the same everywhere. In the acc. plur. masculine of *jo*-stems there is an alternation : South Sl. *otiče*/West and East Sl. *otičě*; and similarly in the gen. sing. of feminine *ja*-stems : South Sl. *duše*/West and East Slav. *dušě*. It would be best explained as due to a variation of pronunciation of *e* as between [*ẽ*] and [*õ*], the latter being too narrow to be maintained against the increasing depression of the uvula. All other nasal vowels became denasalized. Their absence in the Late Proto-Slavonic period is proved by the equivalence *o/e* = Germ. *ung/ing* : ON. *varingr*, R. *varjág* (*ja* < *e*).

X. *Common Slavonic*. In the strictest sense Common Slavonic cannot be termed a period of the language. It is made of deductions from the comparative study of the individual languages, and consists of the sum of points of departure for each phenomenon. These points so fixed were not necessarily contemporary. It seems evident that there was a general use of the two nasals throughout the ninth century and the first part of the tenth, though there had already been established a difference of treatment of Sl. **tort* (South Sl. Czech. *trat*/Pol. *trot* R. *torot*). Similarly there are several results of Sl. **tj* **kí* **gí* and **dj*, which imply Common Slavonic **t̃* **đ̃* (pronounced in the high palate) at a time too late to reach any single stable position.

But though in the strictest sense Common Slavonic is an abstraction to embrace a sum of inferences from the concrete facts of language, yet the community of the Slavs was materially disrupted in the sixth century as a result of their

southern migrations, and their contact was shattered by the irruption of the Magyars into the basin of the Danube in the latter half of the ninth century (A.D. 860–896). One may speak of Common Slavonic as existing in the sixth century, and definitely ended in the ninth.

XI. *Proto-Russian, Proto-Polish, Proto-Czech, etc., Old Bulgarian.* Before the first literary monuments appear (generally in the twelfth century) a number of changes take place in the several languages, sometimes individually, and sometimes over the whole of an area (such as those that give rise to the terms East, West, and South Slavonic). In Old Bulgarian, however, the records follow so hard upon the period of virtual unity that it suffices to cover this period of the development of Bulgarian. The elimination of the nasal vowels in Russian and Czech, or the development of a voiced velar fricative [ɣ] in South Great Russian and *h* in Ukrainian, West Russian, Czechoslovak and Upper Wendish are features which correspond to the individual history of each of these tongues. Scandinavian loanwords prove that the nasal vowels existed in Russian in the ninth century, and Constantine Porphyrogenitus's transcriptions prove that they were denasalized by the middle of the tenth century, and that *h* existed at that time in the Kiev region. This period of imperfectly recorded development extends until the fourteenth century in respect of those features (such as *ákañe*) which Russian owes to the ancient dialect of the Vjatiči.

NOTE. The above went into page proof before there reached me Mr. George Vernadsky's *Ancient Russia* (1943). He considers the questions of original speech and habitat to be unhelpful to the historian. He establishes as periods of the Iranian organization of South Russia: the Cimmerian (1000–700 B.C.), Scythian (700–200 B.C.), Sarmatian (200 B.C.–200 A.D.), and treats of the Iranian legacy as a whole (pp. 95–100). The cultural common fund of Slavonic vocabulary is discussed in the Sarmatian period (pp. 110–111). Magyar borrowings from Ossetian (Scythian) are discussed on p. 244. The Antes are described as Aso-Slavs, i.e. Slavs mixed with *As*, *Ant* or *Os* (cf. Ossetian) Aryans of S.W. Asia and S. Russia (p. 83).

AN INDOEUROPEAN-FINNOUGRIAN LOANWORD PROBLEM¹

By ALAN S. C. ROSS

SUMMARY AND CONTENTS

The subject discussed in the present paper is, primarily, the assignment to their Indoeuropean etymons of the congruent sets of Finno-Ugrian numerals typified respectively by Hungarian *hét* '7', Mansi *sat* '7', Finnish *seitsemän* '7', Finnish *-deksan* '10', Komi and Udmurt *das* '10' and Finnish *sata* '100'. Secondly, from these assignments I draw some detailed conclusions as to the influence of the Indoeuropean decimal numeration-system on the Finno-Ugrian sextal numeration-system.

Abbreviations (pp. 45-47). Introduction, and data of the problem (pp. 47-52). The Indoeuropean etymons (pp. 52-60)—with discussions of the Aryan forms of '6' (pp. 54-57) and an apparent Tocharian parallel to a postulated analogical form (pp. 58-60). Discussion of the history of the individual phonemes of the Indoeuropean etymons down the line of descent PrIndE → Ossete (pp. 60-70). Remarks on *lautersatz* (pp. 70-71). Excursuses on two Finno-Ugrian problems—the history of the Finno-Ugrians-phonemes in Ugrian (pp. 71-73) and the possible masking of IndE final *-ŋ* in Finno-Ugrian (p. 74). The sets of congruent forms in detail:—Finnish *sata*, etc., '100' (pp. 74-75); Hungarian *hét*, etc., '7' and Mansi *sat* '7' (pp. 75-77); Finnish *seitsemän*, etc., '7'—with rejection of the theory that some of the Samoyede words for '7' are cognate with Finnish *seitsemän*, etc., '7' (pp. 78-82); Komi and Udmurt *das* '10' (pp. 82-84); Finnish *-deksan*, etc., '10' (pp. 84-86). Discussion of the other subtractives for '8' and '9' in Finno-Ugrian (pp. 86-88). Elimination of an implied contradiction (pp. 88-89). Parallels afforded by other, non-numeral, Indoeuropean loan-words in Finno-Ugrian (pp. 89-91). Conclusions as to the influence of the Indoeuropean decimal numeration-system on the Finno-Ugrian sextal numeration-system (pp. 91-93).

ABBREVIATIONS

I) Names of languages

The abbreviations M (*Middle*), Mn (*Modern*), O (*Old*), Pr (*Primitive*) are used before the names of languages.

Alb = Albanian; Ar = Aryan; Arm = Armenian; Ash = Ashkun
Av = Avestic; Bulg = Bulgarian; Dam = Dameli; E = English;
Est = Estonian; F = Finnish; FU = Finno-Ugrian; G = German
(HG = High German); Gk = Greek; Goth = Gothic; H = Hungarian;
I = Iğanasan (Tavgi-Samoyede); Icel = Icelandic; Ind = Indian:

¹ I should like to express my gratitude to Professor H. W. Bailey for his help on many points which have arisen during the present research.

IndE = Indoeuropean; Ir = Irish; Iran = Iranian; K = Komi (G. *syřjånisch*); Kar = Karelian; Kb = Koibal; Kh = Khanty (G. *ostjakisch*); Km = Kamassin; Kr = Karagass; Lat = Latin; Lett = Lettish; Lith = Lithuanian; Liv = Livonian; Lp = Lappish; Ma = Mari (G. *tscheremissisch*); Md = Mordvin; Mn = Mansi (G. *wogulisch*); Mt = Motor; N = Nenets (Yurak-Samoyede); Oss = Ossete; Pers = Persian; Pra = Prasun; Pruss = Prussian; S = Sel'kup (Ostyak-Samoyede); Skt = Sanskrit; T = Taigi; U = Udmurt (G. *wotjakisch*); Ugr = Ugrian; Waig = Waigeli; Ye = Enets (Yenisei-Samoyede).

II) *Dialects of Finno-Ugrian languages*¹

Lappish. N = Norwegian; S = Swedish; K = Kola; I = Inari.

Mari. Western dialects:—KB = Kozmodemjansk; J = Yaransk.

Eastern dialects:—U = Urzhum; C = Tsarevokokshaisk;

M = Malmyzh.²

Mordvin. E = Erz'ja; M = Moksha.

Komi. "I = Ižma-dial.; IU = Unter-Ižma-dial.; L = Luza-dial.; Le = Letka-dial.; Peč = Pečora-dial.; PK = permjakischer dial. im dorfe Durova; PO = permjakischer dial. im dorfe Paršakova; S = Sysola-dial.; U = Udora-dial.; V = Vyčegda-dial.; Vu = Unter-Vyčegda-dial." (Uotila, p. X).

Udmurt. "B = bessermanscher dial.; G = glazovscher, dial.; J = jclabugascher dial.; M = malmyžscher dial.; MU = malmyž-uržumscher dial.; S = sarapulscher dial.; U = ufascher dial." (Uotila, p. XI).

Mansi. Southern group:—TJ = Yanychkova; TČ = Chandyri.

Eastern group:—KU = Lower Konda; KM = Middle Konda; KO = Upper Konda.

Western group:—P = Pelymka; VS = South Vagilsk; VN = North Vagilsk (including VNK = Kama); LU = Lower Loz'va; LM = Middle Loz'va.

Northern group:—LO = Upper Loz'va; So = Sosva.³

Khanty. "DN = oberdemjanischer dialekt; DT = unterdemjanischer dialekt; Fil = Fili (am Irtysch); K = die dialekte an der Konda (gesamtname); Vj = Vasjugan-dialekt; V = Vach-dialekt; Trj = dialekt am Tremjugan; Ni = Nizjam-dialekt; Kaz = Kazym-dialekt; O = Obdorskischer dialekt"⁴ (Karjalainen, p. XV).⁵

¹ Much of the philology of Finno-Ugrian is written in German and it has become customary to cite the many dialects of the different Finno-Ugrian languages by the appropriate German abbreviations. For convenience I have followed this practice here, except in the case where I cite the name of a dialect in full.

² Y. Wichmann, *Tscheremissische texte mit wörterverzeichnis und grammatikalischem abriß*, p. 40 note.

³ Kannisto, pp. IV-V.

⁴ Also J = Yugan.

⁵ I have not had occasion to abbreviate the dialects of the Samoyede languages, with the exception of Knd = Konda, LV = Lower Vasyugan.

III) *Literature*

Brugmann = K. Brugmann, *Kurze vergleichende grammatik der indogermanischen sprachen*; BSOS = *Bulletin of the School of Oriental Studies*; Collinder = B. Collinder, Die wörter für fünf, sechs und sieben im lappischen, *Festschrift til Rektor J. Qvigstad (Tromsø Museums skrifter, vol. II)*, pp. 356-374; Donner = K. Donner, *Samojedische wörterverzeichnisse (SUST LXIV)*; DP = K. Donner, *H. Paasonens ostjakisches wörterbuch (Lexica Societatis Fenno-Ugricae II)*; Ebert = M. Ebert, *Realexikon der vorgeschichte*; Endzelin = J. Endzelin, *Lettische grammatik*; FUF = *Finnisch-ugrische forschungen*; Grdr = W. Geiger and E. Kuhn, *Grundriss der iranischen philologie*; IF = *Indogermanische Forschungen*; Jacobsohn = H. Jacobsohn, *Arier und Ugrofinnen*; JIPNS = *Yazyki i pis'mennost' narodov severa*; JRAS = *Journal of the Royal Asiatic Society*; Kannisto = A. Kannisto, *Zur geschichte des vokalismus der ersten silbe im wogulischen (SUST XLVI)*; Karjalainen = K. F. Karjalainen, *Zur ostjakischen lautgeschichte: I. Über den vokalismus der ersten silbe (SUST XXIII)*; KZ = *Zeitschrift für vergleichende sprachforschung*; Miller = Ws. Miller, *Die sprache der Osseten (in Grdr)*; Morgenstierne Afgh = G. Morgenstierne, *Report on a linguistic mission to Afghanistan*; Morgenstierne Ind = G. Morgenstierne, *Report on a linguistic mission to North-Western India*; Morgenstierne NTS = G. Morgenstierne, *The language of the Ashkun Kafirs, Norsk tidsskrift for sprogvidenskap ii, 192-289*; NFU = A. S. C. Ross, *Some remarks on the numerals of Finno-Ugrian, TPS 1941, pp. 1-15*; NyK = *Nyelvtudományi közlemények*; Orbán = G. Orbán, *A finnugor nyelvek számnevei*; Paasonen KSz = H. Paasonen, *Beiträge zur finnischugrisch-samojedischen lautgeschichte, Keleti Szemle xiii, 225-277*; xiv, 20-74, 249-281; xv, 78-134; xvi, 1-66; xvii, 1-111; Paasonen s-laute = H. Paasonen, *Die finnisch-ugrischen s-laute*; Setälä = E. N. Setälä, *Yhteissuomalainen äännehistoria*; Sköld = H. Sköld, *Die ossetischen lehnwörter im ungarischen*; SUST = *Suomalais-ugrilaisen Seuran toimituksia (= Mémoires de la Société Finno-ougrienne)*; Szinnyei = J. Szinnyei, *Magyar nyelvhasonlítás (7th ed.)*; Szinnyei Sprw. = J. Szinnyei, *Finnisch-ugrische sprachwissenschaft*; Toivonen = Y. H. Toivonen, *Kleiner beitrag zur geschichte der finnisch-ugrischen sibilanten, Liber semisaecularis Societatis Fenno-ugricae (SUST LXVII), pp. 377-384*; TPS = *Transactions of the Philological Society*; Uotila = T. E. Uotila, *Zur geschichte des konsonantismus in den permischen sprachen (SUST LXV)*; vW = A.-J. van Windekens, *De Indo-Europesche bestanddeelen in de tocharische declinatie (Philologische studien: Teksten en verhandeligen Nrs. 21-22)*; Wackernagel = J. Wackernagel, *Altindische grammatik*; Wichmann = Y. Wichmann, *Die tschuyvassischen lehnwörter in den permischen sprachen (SUST XXI)*; WP = A. Walde and J. Pokorny, *Vergleichendes wörterbuch der indogermanischen sprachen*.

Some months ago the Society was kind enough to suggest that I should read a paper on Indoeuropean-Finnougrian contact problems. For some years before the present war

I had been working on the problem presented by certain Finno-Ugrian numerals of which the Indoeuropean provenance was either generally accepted or seemed to me capable of demonstration ; I therefore decided to read a paper on these numerals. The paper does, I think, conform to the Society's suggestion because, as will appear, the special problem involves a number of other problems in the rather difficult field of Indoeuropean-Finnougric contacts.

I had better say at once that the work is, in a sense, not finished. But, as I do not think it can be finished for many years, it seems proper to present what there is of it now. By saying that the work cannot be finished now I do not mean, necessarily, that I myself have not time, opportunity, or books to finish it, but rather that the study itself has been cut off by *force majeure*. In the years before the war the study of Finno-Ugrian philology was prosecuted rather differently from that of the better-known philologies, such as Romance. To take an example : there was only one man—Professor Kannisto of Helsinki—who was in a position to give an opinion on matters concerning Mansi philology and it was therefore the practice for a Finno-Ugrian philologist requiring information on this subject to write to Professor Kannisto. And similarly for most of the Finno-Ugrian languages.

In September, 1939, I was about three-quarters of the way through the voluminous correspondence necessary. Such personal contacts have of course been stopped by the war, nor do I take other than a gloomy view of the probability of their resumption in the years to come.¹

To turn now to the question of Finno-Ugrian numerals in general. After I had read the literature of the subject it was comparatively easy to see : (A) what work had already been done ; (B) what could profitably be attempted ; (C) what was probably insoluble. As concerned Category B—work to be attempted—it seemed to me that there were two problems. First, to draw some general conclusions—and

¹ Cf. my note "Studia Moritura", *Nature* cli, 699.

these I put forward in my paper 'Some remarks on the numerals of Finno-Ugrian', *Transactions of the Philological Society*, 1941, pp. 1-15 (cited here as *NFU*)—I will state the main result here. I think that, originally, the Finno-Ugrians had a sextal system; they counted 1, 2, 3, 4, 5, 6 and then no further. This original sextal system was modified by contact with the decimal system of Indoeuropean. Since there is no trace of formations such as 'two sixes' for 'twelve', 'six plus three' for 'nine', etc., it follows that, if this view be accepted, it has a corollary: we should expect all the higher 'basic numerals' of Finno-Ugrian (i.e. 7, 8, 9, 10, 100, 1000)¹ to be either of Indoeuropean provenance or suppletives (like MnE *score*).² The work that has been done—my Category *A*—has established the congruences for the native basic numerals 1, 2, 3, 4, 5, 6³ and made some progress with the suppletives.⁴ And much of the work in my Category *C*—work that probably cannot be achieved—would certainly appear to consist in the sorting-out of various suppletives. Thus for H *tíz* '10'⁵ and F *kymmenen* '10'⁶ we have no certain etymology, but there is no reason to suppose that either is other than a suppletive.

My second problem arose from a consideration of those groups of numerals which, in *NFU*, I have denoted by 7aa (H *hét*),⁷ 7ab (Mn *sat*), 7b (F *seitsemän*), 10a (F *-deksan*) in 8a (F *kahdeksan*) and 9a (F *yhdeksän*), 10f (KU *das*) and 100 (F *sata*). (Finno-Ugrian forms are more difficult to print than Indoeuropean ones and it will be convenient to keep to the procedure I used in *NFU*; the (*italic*) number of a group means all the congruents in the group.)

¹ *NFU* p. 3.

² See *New English Dictionary*, s.v. *Score*, sb.

³ For the forms see *NFU* p. 13.

⁴ Cf., for instance, Y. Wichmann's article "Ung. *húsz* und verwandtes", *SUST* lii, 340-8.

⁵ Szinyei, *Sprw* p. 93; Sköld p. 36 suggests Iranian provenance, but this is very doubtful.

⁶ Orbán p. 54.

⁷ By (H *hét*) I mean the congruent set typified by H *hét*.

I shall begin by setting out here the array of forms for those groups which I shall require. In some cases (as when discussing vocalism) it will be necessary to use the detailed forms, in others the standard forms (as used in *NFU*) will suffice. Where both standard and detailed forms are given they are separated by a colon. The citation of Finno-Ugrian and Samoyede forms presents considerable difficulty and it is frequently convenient to take a whole set of congruents from a single source. In the present article the footnote numbers referring to the citation of Finno-Ugrian and Samoyede forms are to be understood as referring to the whole material as far back as the preceding opening square bracket ([). In such cases I have naturally altered the abbreviations of the source in conformation with my own system and translated all meanings into English.

7aa). [Kh *tapət*¹ : [DN *tãvæt* V *lãuæt* Vj *iãuæt* Trj *Δãp'æt*² [K *tãpət* J *lãpət*³ / H *hét*.

7ab). [Mn *sat*⁴ : [TJ *sāt* TČ *s^eāt* KU *sõä_ot* KM *sõät* KO *sõät* P *sõät* VN *süöt* VS *sõät* LU *sojt* LO *sāt* So *sãv*.⁵

7b). [Lp : Ter *kĩc̄c̄im* Kildin *kĩc̄cem* Notozero *c̄ih̄cem* Inari *c̄ic̄cam* *c̄ic̄cem* Sompio *tj̄it̄seme* Kuolajärvi *kit̄jieme* *kit̄jeme* *tj̄ett̄jeme* Norwegian Lapp *c̄iežá* Jukkasjärvi, Kaalasvuoma *kiet̄ja* Lule, North Gellivare *kiet̄ja* South Gellivare *kiet̄jam* *kiet̄jau* Jokkmokk, Arjeplog *kiet̄jau* Malå *c̄ih̄c̄a* *c̄ic̄a* Vilhelmina *c̄ic̄e* Vefsen *c̄iic̄e* *c̄iic̄e* Offerdal, Undersåker, Härjedalen *c̄ic̄e*⁶ / [F *seitsemän*, *seitsen-* / Kar *šeic̄c̄emen*, *seičc̄emen* / Aunus *seičc̄ei* (-eme-) / Veps : Onega *šeit'šimä* *šeit'šime* Middle *šit'šme* South *šeitšmen* *šeitšmen* / Vatyā *seitsē* *seitsē* / Est : North *seitse*, gen. *seitsme* South *säidze*, gen. *säitsme*; *säidzē* / Liv *seis* / Md : E *sis'em* *sis'im* M *sis'am* / Ma : KB *šam* U *šam* M *šišim*⁷ / [K : I, Peč, V, VU *šizim* U, V, S, L, Le, IU, PK *šizim* PO *šizim* / U : U, G, B *šizim* MU, J, M *šizim*.⁸

¹ *JIPNS* i, 209.

³ *DP* No. 2425.

⁵ Kannisto p. 3.

⁷ Y. H. Toivonen, *FUF* xix, 166.

² Toivonen p. 384.

⁴ *JIPNS* i, 177.

⁶ Collinder p. 362.

⁸ Uotila p. 185.

8a). [Lp : S *kac̄i kakca k̄āu^wcē* ∞ ord. *k̄āu^wcate*- N *gavce gakce gafce gauce* ∞ ord. *gavcad* I *kavci* K *kākce k̄āχc* ∞ ord. *k̄āycant k̄āvcant k̄āvcat kavcat* / F *kahdeksan* (dialects : *kahdeksan kahreksan kahleksan kaheksan*) / Kar *kahekšan* / Aunus *kaheksa* / Veps : Onega *kahtsa* South *kahesa* / Vatyā *kahešā* / Est : North *kaheksa* South *kaṭeša* / Liv *kā'daks* / Md : E *kavsko* M *kafskā* / Ma : KB attr. *kändā·k^xš*, abs. *kändā·k^xšə*; C attr. *kandā·š*, abs. *kandā·šə*; U attr. *kandā·š*, abs. *kandā·šə*; M attr. *kandā·s*, abs. *kandā·sī*; J attr. *kändā·ṛš*, abs. *kändā·ṛšə*.¹

9a). [Lp : S *akci* ∞ ord. *ōuwcate*, *akca* ∞ ord. *aūwcate*-, *ōuwcē* N *ovce okce oufce* ∞ ord. *ovcad* I *ovci* K *akce aχc θχc* ∞ ord. *aγcant θvcat avcat* / F *yhdeksän* (dialects : *ühdeksän ühreksän ühleksän üheksän*) / Kar *ühekšan* / Aunus *üheksä* / Veps : Onega *ühtsa* South *ühesa* / Vatyā *ühešā* / Est : North *üheksa* South *ütešä* / Liv *ū'daks* / Md : E *veikse* M *vehksa* / Ma : KB attr. *ənde·k^xš*, abs. *ənde·k^xšə*; C attr. *inde·š*, abs. *inde·šə*; U attr. *inde·š*, abs. *inde·šə*; M attr. *indē·š*, abs. *indē·šə*; J attr. *ṇdi·ṛš*, abs. *ṇdi·ṛšə*.¹

10f. [KU *das* (all dialects of both languages).²

100. [Lp : N *t's'ü'ōti* ∞ gen. *t's'ü'ōdi* S *t's'uōtē* ∞ gen. *t's'uōtē*³ / F *sata* ∞ gen. *sadan* / [Md : E *šado* M *šadā* / Ma : KB *šū·də* M *šū·də* / KU *šu* / Mn : TJ, TČ *šā't* KU *šāt* P, VN, VS, LU *šēt* KM *sēt* KO *sēt* LO *sāt* So *sāv* / Kh : K *sòt* J *sāt* / H *száz*.⁴

It has long been admitted that all these groups save one—7b (F *seitsemän*)—are of Indoeuropean provenance. But this provenance has not been made precise. The second problem—referred to above (p. 49)—which I discuss in the present paper—is, first, to make this Indoeuropean provenance precise; second, to support the view—not generally accepted⁵—that Group 7b (F *seitsemän*), too, is of

¹ E. N. Setälä, *FUF* xii, 162 ff. ² Uotila p. 3.

³ Szinnyei p. 36.

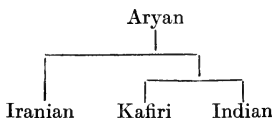
⁴ Toivonen p. 381.

⁵ But suggested, for instance, by Szinnyei *Sprw* p. 93.

Indoeuropean provenance, and to discuss this provenance in detail.¹

Before going on to the detailed discussion, I had better interpolate here a few brief remarks as to some of the languages with which I shall be concerned :—

(i) Following Morgenstierne (*Ind, Afgh* and *NTS*), I regard the “ pattern of descent ” of the Aryan languages as :—



The Kafiri languages are Kati, Waigeli, Ashkun and Prasun. They are distinct from the so-called Dard group (Kashmiri, Shina, etc.), but Dameli is a mixture of a Dard language with a lost Kafiri one. On the Iranian languages see H. W. Bailey, *Encyclopaedia of Islām* s.v. *Persia : II. Languages and Dialects*; also A. Christensen, *Die Iranier*; M. Vasmer, *Untersuchungen über die ältesten Wohnsitze der Slaven : I. Die Iranier in Südrussland*.

(ii) Unfortunately there is no comprehensive and accessible work on the Samoyedes. There is a very brief note in Ebert (s.v. *Finno-Ugrier* B § 25).

(iii) The genesis of the Ugrian languages probably consisted in a spread of language rather than in a spread of people.² Incidentally, this would afford a facile explanation of the Ugrian *s*-changes discussed below (pp. 71–73), similar to that often suggested for Grimm’s Law.

I turn now to the detailed discussion. Each of our borrow-

¹ It is accepted too that the Finno-Ugrian words for ‘ 1000 ’ (on the one hand H *ezer*, etc., on the other F *tuhāt*, etc.) are of Indoeuropean provenance. I should like to have discussed these words also. But the word *thousand* is so difficult—indeed unsolved—in Indoeuropean (see WP i, 707), that a discussion of the Finno-Ugrian forms (which are certainly late) is hardly to be attempted. Z. Gombocz and J. Melich, *Magyar etymologiai szótár* s.v. *ezer* give a good account of the first-mentioned group; cf. also Collinder pp. 371–3.

² See *Suomen Suku* i, 167 ff.; Ebert s.v. *Finno-Ugrier*.

ings represents one or more contacts between Indoeuropean and Finno-Ugrian and I begin by laying down the *a priori* Indoeuropean limits of these contacts. Having in mind what we know of the history and prehistory of the areas concerned, we see that the following statement is certainly true:—The *a priori* Indoeuropean limits of all the contacts are situated on the line of descent Primitive Indoeuropean → Ossete. The terminus *ad quem* requires no comment. As to the terminus *a quo*. In the Samoyede languages there are words, with Finno-Ugrian congruents, such as Ye *bi'* ∞ gen. *bido'*, etc.¹: F *vesi* ∞ gen. *veden* H *víz*,² N *nim*, etc.³: F *nimi* H *név*,⁴ clearly standing in some relationship to their Indoeuropean counterparts *water* (WP i, 253) and *name* (WP i, 132). This phenomenon can only be explained if one of the following hypotheses is true:—(i) Indoeuropean and Uralian are related; (ii) there was Indoeuropean influence on Primitive Uralian before the division into Samoyede and Finno-Ugrian took place.⁵ Clearly then we cannot put our terminus *a quo* later than Primitive Indoeuropean itself.

Now as to the Indoeuropean etymons. It will be convenient here to adopt a space-saving notation. When I write ↓ IndE **děkm*, I mean “some point or points on the line of descent IndE **děkm* → Oss. *däs*”. Then it is certainly true that the following statements as to the etymons of all the Groups under discussion save 7b (F *seitsemän*) will, at the least, not conflict with accepted theory:—

(i) The etymon of Groups 7aa (H *hét*) and 7ab (Mn *sat*) is ↓ IndE **sěptrń*.

(ii) The etymon of Groups 10a (F *-deksan*) and 10f (KU *das*) is ↓ IndE **děkm*.

(iii) The etymon of Group 100 (F *sata*) is ↓ IndE **kmtö-*.

¹ Paasonen, *KSz* xiv, 38.

² Szinnyei p. 37.

³ Paasonen, *KSz* xiii, 238.

⁴ Szinnyei p. 32.

⁵ See B. Collinder, *Indo-uralisches sprachgut*; also A. S. C. Ross, *BSOS* viii, 227-234.

Group 7b (F *seitsemän*) is more difficult. In the course of this article I hope to render the following statements plausible:—

(a) The Group is of Indoeuropean provenance.

(b) ↓ IndE **sēptn̥* is not the etymon.

(c) What I may concisely describe as “ ↓ IndE **sēptn̥* influenced analogically by ‘6’ (and perhaps in part also by ‘8’) ” is the etymon.

It is clear then that, at the least, we shall need to consider the history of the words for ‘6’, ‘7’, ‘10’ and ‘100’ along our line of descent PrIndE → Oss.

‘7’, ‘10’ and ‘100’ present no difficulties. The relevant forms are:—

IndE **sēptn̥* (> Lat *septem*)¹: Skt *saptá* Av *hapta* Oss *awd*.

IndE **dék̑m̑* (> Lat *decem*)²: Skt *dása* Av *dasa* Oss *däs*.

IndE **k̑mtō-* (> Lat *centum*)³: Skt *śatá-* Av *sata-* Oss *sädä*.

But ‘6’ is very difficult. The following forms are attested for IndE:—(1) **suēks* (> Welsh *chwech*); (2) **sēks* (> Lat *sex*); (3) **ueks* (> Arm *veç*); (4) **uks* (OPruss *uschts*, ordinal).⁴ The strict phonological development of the forms tends to be broken, at any stage, by analogy between the developments of the initial *su*, *s*, *u* and the development of the final *ks*. And, for brevity, I call all such assimilation “six-assimilation” here. One non-Aryan example will suffice: Lith *šeši* < **seši* < **sēksi-* (Endzelin § 331c).

The Aryan forms of ‘6’ could certainly be explained if we made three assumptions:—

I). They are all to be ascribed to one of the four following IndE types:—

A) **sēks*

B) **suēks*

C) **ksēks*

D) **ksuēks*

II). Six-assimilation has taken place in Type A.

¹ WP ii, 487.

² WP i, 785.

³ WP i, 786.

⁴ WP ii, 522–3, where further literature.

III). Six-assimilation has taken place prior to the change $s > h$ in Iranian.

Ascription to these four IndE types is actually made by Wackernagel III, § 182. And, as to the genesis of Types C and D, it might well be assumed that they are, ultimately, only very early instances of six-assimilation. We might in fact imagine that $*s\acute{e}k\acute{s}$, $*s\grave{u}\acute{e}k\acute{s} > *k\acute{s}\acute{e}k\acute{s}$, $*k\acute{s}\grave{u}\acute{e}k\acute{s}$ with assimilation of the initial to the medial; then we might imagine a dissimilation to $*ks\acute{e}k\acute{s}$, $*ks\grave{u}\acute{e}k\acute{s}$; this dissimilation would be somewhat similar to the well-known Sanskrit dissimilation whereby, ultimately, an IndE $k\acute{s}$ falls together with an IndE ks as $k\acute{s}$ in Sanskrit (whereas they are kept apart in Iranian); thus Vedic *vakṣi* Av *vaṣi* to Skt *vaś-* Av *vas-* 'to desire' Gk $\acute{\epsilon}\kappa\acute{\omega}\nu$: IndE $*\grave{u}\acute{e}k\acute{-}$ (WP i, 244-5); Vedic *ksap-* Av *xšap-* 'night' Gk $\psi\acute{\epsilon}\phi\omicron\varsigma$: IndE $*k^u\acute{s}\acute{e}p\text{-}$ (WP i, 524-5).¹

It will be convenient to present the argument as if the ascription to the above four IndE types were justified and then to discuss whether it is or not. Then, assuming the ascription to be genuine, we have:—

A) $*s\acute{e}k\acute{s}$ with six-assimilation:—

Indian: $*s\acute{e}k\acute{s} > *s\acute{a}k\acute{s} > *s\acute{a}k\acute{s} > *s\acute{a}k\acute{s} > *s\acute{a}š \infty \acute{s}a\acute{s} >$
Skt *ṣaṭ*, *ṣaḍ* '6'; *ṣódaśa* '16'. For Skt t , \acute{d} < IndE $k\acute{s}$,
cf. Skt nom. sing. *viṭ*, *viḍ* 'village' < IndE $*\grave{u}i\acute{k}\text{-s}$, gen. sing.
viś-as < IndE $*\grave{u}i\acute{k}\text{-}\acute{o}s$.²

Iranian: $*s\acute{e}k\acute{s} > *s\acute{a}k\acute{s} > *s\acute{a}š > *s\acute{a}š >$ MPers *šaš*
MnPers *šaš*.

B) $*s\grave{u}\acute{e}k\acute{s}$:—

(i) without six-assimilation:—

Iranian: $*s\grave{u}\acute{e}k\acute{s} > *s\grave{u}\acute{a}k\acute{s} > *xvaš >$ Sogdian
(Buddhist) *wywšw*, (Christian) *χwšw*; Parachī *xī*.

(ii) with six-assimilation:—

Iranian: $*s\grave{u}\acute{e}k\acute{s} > *s\grave{u}\acute{a}k\acute{s} > *švaš >$ Pashto *špaž*.

¹ See Wackernagel I, § 116; E. Hermann, *KZ* xli, 43 ff.

² Cf. Lat *uicus* Goth *weihs* (gen. sing. *weihsis*)—WP i, 231.

C) **ksēks* :—

Indian : **ksēks* > **ksaks* > **kṣaks* > **kṣaṣ* ∞ *kṣaṣ* > MInd *cha*.

Iranian : **ksēks* > **ksaks* > **xšaš* > Khotanese *kṣāṣa*
Oss *āxsāz*.

D) **ksuēks* :—

Iranian : **ksuēks* > **ksuaks* > **xšvaš* > Av *xšvaš*
Ormuri *šo*.

And, to conclude, we have :—

I) The Modern Indian forms descend from types corresponding to Skt *ṣaṭ* ∞ *ṣaḍ* or MInd *cha*.

II) The Kafiri forms appear to agree with Skt *ṣaṭ* ∞ *ṣaḍ* ; cf. Kati *ṣū* Ash *ṣu* Pra *vūsu*.

See further Wackernagel III, § 182 (and the references there given) ; R. Pischel, *Grammatik der Prakrit-sprachen* §§ 211, 441 ; R. L. Turner, *A comparative and etymological dictionary of the Nepali language* s.v. *cha*² ; *Journal of the Gypsy Lore Society* III. v. 174 ; J. Bloch, *La formation de la langue marathe* § 218 ; G. Morgenstierne, *An etymological vocabulary of Pashto* s.v. *špaž* ; *Afgh* pp. 41, 45, 47.

We now have to consider whether the ascription to the four Indoeuropean types given above, supported by Wackernagel, is genuine or not ; i.e. whether there is any evidence for the actual existence of the types in PrIndE. And it may be said at once that the chief support for this view is found in the Greek dialect form *ξέστριξ*¹ ; this form could represent an original type with *ks* or *ks̄*. On the other hand it could well be otherwise explained ; thus E. Boisacq, *Dictionnaire étymologique de la langue grecque* (3rd ed.), p. 678, suggests that it may derive from either **σεξ-στριξ* or **σφεξ-στριξ* by metathesis. On the whole, opinion is against the postulation of types with initial *ks* or *ks̄* for '6' in IndE itself, and the ascription to the four IndE types made above cannot be regarded as genuine.

¹ *ξέστριξ κριθή ἢ ἐξάστιχος. Κνίδιοι* (Hesychius—ed. M. Schmidt—Ξ 64).

Moreover the Aryan forms can be explained solely from the established IndE types A (**sēks*) and B (**syēks*) if we make Assumptions II and III (pp. 54–55) and forgo Assumption I. Thus in Iranian Type A **sēks* with six-assimilation should give (i) **šaš*; Type B **syēks* without six-assimilation should give (ii) **xvaš*. Analogy between (i) **šaš* and (ii) **xvaš* might well give rise to (iii) **švaš*. The grouping (i) **šaš*, (iii) **švaš* ∞ (ii) **xvaš* might produce (iv) **xšaš*, (v) **xšvaš*. And in Indian the form **śakṣ* (ultimately from IndE **sēks* as set out above) might well give **kṣakṣ* with a further six-assimilation; hence, ultimately, Skt *ṣaṭ* < **śakṣ*, MInd *cha* < **kṣakṣ*. And certainly the following are possible:—

(i) **šaš* > MPers *šaš* MnPers *šaš*.

(ii) **xvaš* > Sogdian (Buddhist) *wywsšw*, (Christian) *χwsšw*; Parachi *xī*.

(iii) **švaš* > Pashto *špaž*.

(iv) **xšaš* > Oss *āxsāz*; Khotanese *kṣāša*.

(v) **xšvaš* > Av *xšvaš*; Ormuri *ṣo*.

But other explanations are possible; thus Pers *šaš* could be explained from (iii) **švaš* and, according to Morgenstierne, *op. cit.*, Pashto *špaž* from (v) **xšvaš*.

It will thus readily be appreciated that the answer to the question: by what should we replace ↓ IndE **sēptn̄* in order to indicate that it has been influenced by '6'? is very difficult. The *pt* presents no special difficulty: the apparent answer is either *kt* or *kst*. And, fortunately, I think that we can escape from the difficulty of the initial consonant. Finno-Ugrian will not tolerate an initial consonant-group and has always selected the second consonant as *lautersatz* in such cases (thus F *Ranska* 'France').¹ So, for our purposes, *xš* (or its ancestors at those stages where a consonant-pair existed) is equivalent to *š* (or its ancestor at the appropriate stage). It is certainly harder to decide how Finno-Ugrian would treat the triplet *xšv* (or its ancestors at those stages where a consonant-triplet existed). But it is clear that only

¹ Szinnyei, *Sprw* p. 20.

one component would have been selected. On general grounds this component will not have been the first and a glance at Group 7b (F *seitsemän*) will make it clear that there can be no question of the *v*-component having been selected in this case. Therefore, there only remains the middle, *š*-component. Such a selection would certainly be improbable; in the case of triplets the last component seems to be the normal selection; cf. F *ranta* : OIceI *strönd*.¹ It seems then that, if a form of '7' with initial corresponding to either Iranian *š* or *xš* or *xšv* of '6' is the etymon of Group 7b (F *seitsemän*), we shall be justified in considering only the first of these three possibilities. And we must therefore consider ↓ IndE **sēktñ*, **sēkstñ*, **šēktñ*, **šēkstñ* (where *š* denotes the correspondent of Skt *ṣ* of *ṣaṭ* and *š* of Pers *šaš* at the appropriate stage) as the proper replacements of ↓ IndE **sēptñ* to indicate that the latter has been influenced by '6'.

Before leaving these analogical influencings of ↓ IndE **sēptñ*, I must point out that the forms with *kt*, mentioned above, can be considered as of dual generation. For the *kt* could well be due, not only to the influence of the *k* of **sēks*, but also to that of the *kt* of **ōktō(u)* (> Lat *octo* Skt *aṣṭāu*) '8'.² Analogies between numerals of the type postulated here are, of course, quite common.³ In *NFU* I mentioned Elean *ὀπτῶ* '8', clearly a mixture of *ἑπτὰ* '7' and *ὀκτώ* '8'.⁴ In the language usually known as "Tocharian B",⁵ there

¹ E. N. Setälä, *Bibliographisches verzeichnis der in der literatur behandelten älteren germanischen bestandteile in den ostseefinnischen sprachen* p. 94.

² WP i, 172-3.

³ A sufficiency of examples will be afforded by W. van Helten's classic article "Zum germanischen zahlwort", *IF* xviii, 84-126.

⁴ C. D. Buck, *Introduction to the study of the Greek dialects*, § 114.8.

⁵ Cf. H. W. Bailey "Ttagara", *BSOS* viii, 883-917; P. Pelliot, "A propos du 'tocharien'," *T'oung Pao* xxxii, 259-284; E. Sieg, "Und dennoch 'tocharisch,'" *Sitzb. Preuss. Akad. Wiss.*, 1937, xvii, 130-139; G. Haloun, "Zur Ue-tsi-Frage," *Zeits. Deutsch. Morgenl. Gesells.* 91, 243-318; W. B. Henning, "Argi and the 'Tokharians'," *BSOS* ix, 545-571.

is present an analogical form of '7' rather similar to that postulated above. The Tocharian forms are¹ :—

B: [ʃkas '6'²; [ʃukt '7'³ ([ʃuktomte '7th', ʃuktoinka '70'⁴); [okt '8'⁵

A: [ʃäk '6'; ʃpät '7' (ʃäptakoñi '7 days', ʃaptänt '7th', ʃäptuk '70'); okät '8' (oktapuklyi '8 years').⁶

As to the sound-changes involved :—

1) IndE *s* > *ʃ* with palatalization before *e*—hence initially in **sěks*, **sěptŋ*; cf. B *ʃer* A *ʃar* Skt *svasar-* 'sister' (WP ii, 533-4); otherwise IndE *s* > *s*—hence finally in **sěks*; cf. A *säl* Lat *salio* 'to leap' (WP ii, 505).⁷

2) After the period of this palatalization, IndE *e* > *ä*, *a*—in **sěks*, **sěptŋ*; cf. B *yakwe-* Lat *equus* 'horse' (WP i, 113); B *päccane* A *päççäm* 'breasts' Lat *pectus* (WP ii, 17).⁸

3) IndE *ĥ* > *k*—in **sěks*, **öktōu*; cf. B *känte* A *känt* Lat *centum* '100' (WP i, 786).⁹

4) IndE *p* remains—in **sěptŋ* (vW § 105).

5) IndE *t* remains—in **sěptŋ*, **öktōu* (vW § 110).

6) IndE *ŋ* > *a* and is sometimes lost—thus A *ʃpät* '7' but *ʃäptakoñi* '7 days'; cf. *çka-tampe* (*tampe* 'power') but *çäk* '10' Lat *decem* (p. 54).¹⁰

7) IndE *ʒ* > *o* in **öktōu*; cf. B *on-olme* 'human being' Gk *ὄλος* (WP ii, 510-12).¹¹

8) Dissimilatory loss of final *s* in A *ʃäk* < **ʃäks* (vW § 150).

9) "Metathesis" in B *ʃkas* < **ʃaks* (beside A *ʃäk* < **ʃäks*); A *ʃpät* (beside *ʃäptakoñi*, *ʃaptänt*, *ʃäptuk*); cf. [A *ʃpäm-*

¹ The texts of Tocharian B are not fully published; I adopt a method of giving references identical with the one I use for Finno-Ugrian forms (p. 50).

² vW § 22.

³ O. Schrader and A. Nehring, *Reallexikon der indogermanischen Altertumskunde* s.v. *Tocharer* § 4.

⁴ van Windekens, letter of 10/3/39.

⁵ vW § 33.

⁶ vW § 21.

⁷ vW §§ 87-8.

⁸ vW §§ 39-40.

⁹ vW § 117.

¹⁰ vW § 67.

¹¹ vW § 33.

B *špäne špane* 'sleep'¹ < IndE **suēpnō-* (: Skt *svāpnā-* OE *swefn* 'sleep, dream'²).³

10) *ä* in A *okät* is a svarabhakti vowel; cf. A *kukäl* 'wagon' Gk κύκλος Skt *cakrā-* 'wheel' (WP i, 515).⁴

It is thus clear that the *kt* of B *šukt*, *šuktomte*, *šuktoinka* cannot represent the *pt* of IndE **sēptn̄* phonologically; it must therefore be due to analogy with the *k* of **šäks* (> A *šäk*), **šaks* (> B *škas*) and the *kt* of *okt*. The *u* is completely obscure.

Next we must trace briefly the history of each of the phonemes of our "arrowed" forms down the line of descent PrIndE → Ossete.

The phonemes and phoneme-groups concerned are as follows:—

- (1) *ě* in **děkm̄*, **sēptn̄*, **sěktn̄*, **šěktn̄*, **sěkstn̄*, **šěkstn̄*.
- (2) *ō* in **kmtō-*.
- (3) *m̄*—medial in **kmtō-*.
—final in **děkm̄*, **sēptn̄*, **sěktn̄*, **šěktn̄*, **sěkstn̄*, **šěkstn̄*.
- (4) *t* in **kmtō-*.
- (5) *d* in **děkm̄*.
- (6) *pt* in **sēptn̄*.
- (7) *s* in **sēptn̄*, **sěktn̄*, **sěkstn̄*.
- (8) *š* in **šěktn̄*, **šěkstn̄*.
- (9) *k̂*—initial in **kmtō-*.
medial in **děkm̄*.
- (10) *kt̂* in **sěktn̄*, **šěktn̄*.
- (11) *k̂st̂* in **sěkstn̄*, **šěkstn̄*.

It will be convenient to discuss the changes operating on these phonemes and phoneme-groups under the following heads:—

A) Nos. 1–7.

I) Primitive Indoeuropean to Primitive Aryan.

¹ vW § 22. ² WP ii, 523.

³ This "metathesis" is not of the ordinary kind; see vW § 21.

⁴ vW § 21.

II) Primitive Aryan to Old Iranian.

III) Old Iranian to Ossete.

B) Nos. 8–11.

I) Primitive Indoeuropean to Old Iranian.

II) Old Iranian to Ossete.

A

I

1) and 2). IndE *ě, ǝ* > PrAr *ǎ¹*: IndE **ékūō-* (> OLat *equos*) > Skt *ásva-* OPers *aspa-* ‘horse’ (WP i, 113). Later on, I shall postulate a stage intermediate between the *ě* of Indoeuropean and the *ǎ* of Aryan; there is clearly no reason against this; I shall denote this stage by *ǎ* (a sufficient indication of its probable quality).

3). IndE *m* (medial and final) > PrAr *ǎ²*: IndE **g^uńti-* (> Goth *ga-qumþs*) > Skt *gáti-* ‘course’ Av *aiwi-gati-* ‘beginning’ (WP i, 675–6).

4), 5), 6) and 7). IndE medial *t*, initial *d*, medial *pt*, initial *s* remain in PrAr³: IndE **ěti* (> Gk *έρι*) > Skt *áti* Av *aiti-* ‘over’ (WP i, 43–4); IndE **dō-* (cf. Lat *dōnum*)—Skt *dádāti* Av *dadāiti* ‘to give’ (WP i, 814); IndE **něpti-* (> Lat *neptis*)—Skt *naptí* Av *napti-* ‘granddaughter’ (WP ii, 329–30); IndE **sěd-* (cf. Lat *sedeo*): Skt *sādayati* ‘to place’ (WP ii, 483–6).

II

1–2), 3), 4) and 5). PrAr *ǎ*, medial *t*, initial *d* remain in OIran.⁴

6). PrAr medial *pt* > OIran *ft*.⁵ This remains in Persian,⁶ but generally undergoes further changes elsewhere in Iranian. Thus OIran *ft* > Av *pt*⁷; in Pashto, OIran *ft* > *vd* (and

¹ Brugmann §§ 92, 104. ² Brugmann § 188.1.

³ Brugmann §§ 224.1, 3; 217.1; 277.

⁴ *Grdr* I. §§ 77.5, 15. ⁵ *Grdr* I. § 4. ⁶ *Grdr* II. § 279.

⁷ H. Reichelt, *Awestisches elementarbuch* § 45.

avd > *ōd*, *uvd* > *ūd*),¹ in the Pamir dialects, OIran *ft* > *ud*²; in the Caspian dialects the *f* is lost³; of the Central dialects, some preserve the *ft*, others lose the *f*.⁴ (On the Ossete development, see below, p. 63.) Thus:—later Av p.part. *x^vaptō* ‘fallen asleep’ < **suēptō-*; MnPers p.part. *xuftan* ‘fallen asleep’, pret. *xuftam* ‘slept’; Pashto pres.part. *ūda* ‘sleeping’ (< **hufta-*) Sarikoli *xuwdam* Shugni *šawdam* (= MnPers *xuftam*) Mazandarani *xūt-* (= MnPers *xuft-*) Gabri *xoftmūn* ‘to sleep’ Vonishūn pret. *xuft* Zafre pret. *vōft* Nāyīnī *he-vōftend* ‘they slept’ Kohrūd *xūt* Keshe *xut* (= MnPers *xuftan*)—cf. Skt *suptá-* < **suptō-* to Lat *sōpio* OIcel *sofa* (WP ii, 523–4).

7). PrAr initial *s* > OIran *h*⁵: Skt *sādayati* ‘to place’ (see above): Av *had-* ‘to place oneself’.

III

1), 2) and 3). The Ossete developments of OIran *ǎ* present a problem of some difficulty. Professor Bailey is preparing a note on the subject. Here then it will suffice to give his views on the points relevant to the present paper:—

(i) Digor *dās* Iron *dās* < OIran **dasa* shows change *a* > *ā* in an open syllable and loss of final vowel in both dialects; cf. Digor *fād* Iron *fād* ‘footstep’ = Av *pada-* Skt *padá-* ‘track’ Gk *πέδον* (WP ii, 24).

(ii) Digor *awd* Iron *awd* < OIran **hafta* show change *ǎ* > *ā* (lengthening in a closed syllable) > *a* and loss of final vowel in both dialects; cf. Digor *dary* Iron *dary* < **dargá-* (> OPers *darga-* Av *darəga-*): Skt *dīrghá-* OBulg *dlǫgǫ* ‘long’ (WP i, 812–13).

(iii) Digor *sādā* Iron *sādā* probably derive from the form of the nom. acc. dual, **satái* (cf. Skt *dvē śatē* ‘200’). The Ossete development of the medial vowel would then be the same as that in Digor *dās* Iron *dās*; for the development of the final cf. Digor *duvā* Iron *dīvā* ‘2’ < **duvai* (= Skt *dvē*).

¹ Grdr V. § 5.5. ² Grdr VIII. § 26. ³ Grdr VIII. § 110.2.

⁴ Grdr VIII. § 168.2. ⁵ Grdr I. § 42.

It is clear that the chronology of the loss of the final vowel in Ossete is of interest in the present context—Group 10f (KU *das*) has no final vowel. Sköld pp. 50, 74 ff., considers that the Alan loan-words of Hungarian derive from Iron forms in which the final vowel had already been lost; thus H *tölgy*: Iron *tülj* Digor *toljä* ‘oak’ (Sköld p. 36). And it certainly seems possible that Hungarian preserved an Alan final vowel when it was encountered; cf. H *eszte* ‘year’: Iron *äztä* pl.¹ of *az* ‘year’ (: Digor *anz*).² Sköld further considers that the Hungarian loan-words were taken over in the eighth century A.D. But it must be admitted that Sköld’s views as a whole are open to criticism; see, particularly, G. Schmidt, *FUF, Anzeiger* xviii, 84–113; H. Sköld, *FUF, Anzeiger* xix, 1–12; G. Schmidt, *FUF, Anzeiger* xix, 13–35.

4). OIran medial *t* > Oss *d*³; cf. Iron *vad* Digor *vadü* ‘storm’ = Av *vāta-* Skt *vātā-* ‘wind’ (WP i, 221).

5). OIran initial *d* remains in Ossete: Oss *dary* ‘long’ (above).

6). OIran medial *ft* > Oss *wd*⁴: Oss *täwd* ‘hot’ (and p.part. *tawd* to *tawin* ‘to heat’) = p.part. Av *tapta-* Skt *taptā-*, cf. Skt *tāpati* ‘to give out heat’ Lat *tepeo* (WP i, 718–19).

7). Before vowels other than *i*, *u*, *ü* (and *ai*, *au*) OIran *h* is lost initially in Ossete⁵: Oss *äm* = Av *ham-* Skt *sám-* OBulg *sq-* (WP ii, 489–490).

B

I

8). \bar{s} ; the points involved here have been sufficiently dealt with above (pp. 54–57).

9) and 10). The history of \hat{k} and $\hat{k}t$ is one of the classic

¹ Professor Bailey is dealing with the question of the origin of the final vowel in the Ossete plural suffix so I need say nothing further here.

² Sköld p. 19.

³ Miller § 32.2.

⁴ Miller §§ 32.2, 39.1.

⁵ Miller § 44k.

problems of Indoeuropean philology. In Aryan \hat{k} has a general development and a special development in certain positions; one of these special positions is before *t*.

9) *The general development of \hat{k}*

IndE \hat{k} appears as *s* in Skt¹ and as *s* in OIran.² The Kafiri development is of interest and has been discussed by Morgenstierne *Afgh* pp. 56 ff.; *Ind* pp. 60, 66; *NTS* pp. 195 ff.³ Kati and Waigeli have *ts* and *š*; Ashkun has *ts*, *š* and *s*; Prasun has *ts* (*z* between vowels) and *š*; there are examples of *ts* in Dameli. Thus:—Kati *duts* Waig *dōš* Ash *dus* Pra *lezë* '10' (: Pra *tspu-lts* '14'): Skt *daśá*; Waig *tsūn* Dam *tsunā*: Skt gen. sing. *śúnaḥ* Av gen. sing. *sūnō*: Lat *canis* (WP i, 465–6); Kati *šaru* Waig *šorō* Ash *sorō* Pra *šire* Skt *śarad-* Av *sarad-* 'year' Dutch *hal* 'frozen ground' (WP i, 429–430); Kati *tsuī* Waig *tsōn* Ash *tsun* Skt *śūnya-* 'empty': Lat *cauus* (WP i, 365 ff.); Waig *šēl* Ash *šil*, *šal* Skt *śalya-* 'spear-point': Gk $\kappa\eta\lambda\omicron\nu$ (WP i, 431–2). The *z* of Prasun (as in *lezë* '10') is clearly developed from *ts* intervocalically⁴; the *s* of Ashkun (as in *sorō* 'autumn') is ambiguous—it may derive from an earlier *ts* or an earlier *š*.⁵ The relationship between the two remaining phonemes of Kafiri, *ts* and *š*, is to some extent obscure. Many Kafiri words with *š* are evidently Indian loan-words; thus Morgenstierne *Ind* p. 66 tentatively explains all the Prasun examples of *š* in this way. In his paper "Die sprachliche stellung der Kafir-sprachen",⁶ H. Sköld would explain all the *š*-forms as of Indian provenance, regarding *ts* as the sole true Kafiri development of IndE \hat{k} . But Morgenstierne *NTS* pp. 195 ff. shows that this view cannot be maintained.

¹ Wackernagel I. §§ 198–201.

² *Grdr* I. §§ 276.1, 29.

³ Cf. also R. L. Turner, *TPS* 1931–2, p. 15; *JRAS* 1932, pp. 174–5.

⁴ Morgenstierne, *Ind* p. 66.

⁵ See Morgenstierne, *NTS* pp. 194, 196.

⁶ *Wissenschaftliche bericht über den deutschen orientalistentag, Hamburg, 28 Sept.–2 Okt. 1926*, p. 45.

He considers, *Afgh* p. 58, that both *ts* and *š* derive from an earlier sound, phonetically something like *tš*—a sound which it will be convenient to denote here by *č*. Having in mind the difference in accentuation between Kati *šāī* 'head' and *vutsər* 'pillow' (: Skt *śiras-*), Morgenstierne further suggests that the alternation *ts* ∞ *š* may be due to some kind of sandhi.

I must next consider the representation of IndE *ĥ* in the other Indoeuropean languages. As is well known, IndE *ĥ* appears as (or is developed from) a pure velar in the *centum*-languages¹; thus Lat *canis*: Skt gen. sing. *śúnaḥ* with the same initial phoneme as Lat *cingo*: Skt *kāñčī* 'girdle' (WP i, 400-1).

In Slavonic IndE *ĥ* appears as *s* as it does in Old Prussian and Lettish; but Lithuanian has *š*²; thus O Bulg *srōdъce* O Pruss *sīras* Lett *sīrds*: Lith *širdis* 'heart' to Lat gen. sing. *cordis* (WP i, 423). There is no reason to question the accepted view³ that the Primitive Balto-Slavonic phoneme was *š*, which remained in Lithuanian but became *s* elsewhere.

In Armenian IndE *ĥ* appears as *s*⁴; thus Arm *sirt* 'heart'.

The position in Albanian is difficult and to attempt any real discussion of it would be beyond the scope of the present paper. It will suffice to say that IndE *ĥ* appears both as *θ* and *s*⁵; thus Alb *θom* 'to say': Skt *śamsati* 'to recite' Lat *censeo* (WP i, 403); Alb *vis* 'place': Lith *viš-pats* 'gentleman' Lat *uīcus* (WP i, 231). But, at the time when the Illyrians were in contact with the Romans and the Greeks, it seems probable that Illyrian had some such sound as *š* as the primary representative of IndE *ĥ*; hence forms such

¹ A. Meillet, *Introduction à l'étude comparative des langues indo-européennes* pp. 65-7.

² W. Vondrák, *Vergleichende slavische grammatik* i, 329; R. Trautmann, *Die altpreussischen sprachdenkmäler* § 72; Endzelin § 74b.

³ So, for instance, Brugmann § 243.

⁴ A. Meillet, *Esquisse d'une grammaire comparée de l'arménien classique*, p. 30.

⁵ Pekmezi, *Grammatik der albanesischen sprache* p. 28.

as *Saso, Sasaei*: OPruss *sasins* Welsh *ceinach* 'hare' (WP i, 357-8) and *Σίρρα*: Arm *ser* 'race' Gk *κόρη* (WP i, 408). But, in conclusion, it should be emphasized that the Illyrian evidence does not attest any representation of IndE *k̂* other than a spirantic one.¹

In Thracian matters are even harder. The very complex state of affairs arising is due to two main causes: first, the obscurities of Thracian orthography; second, the fact that there is apparently confusion between the Thracian representation of an Indoeuropean palatal and that of an Indoeuropean pure or labio-velar before a front vowel; apparently, either a stop-like or a spirant-like orthographic representation can appear in either case. Thus, on the one hand, *μόσσυν* 'wooden tower', cf. Oss *mäsug* 'tower'; *Πεύκη* also *Peuci Peuceni Peucini*: Gk *πέυκη* OPruss *peuse* 'fir' (WP ii, 15); *Ῥήσος* beside *Ῥαῖζδος*—further the related place-name *Resiston*, *Ῥαιδεστός*: Skt *rājan-* Lat *rēx* (WP ii, 362 ff.)—with spirant and stop representing the Indoeuropean palatal; on the other hand, *Germisara Ζερμίζερα*: Skt *gharmā-* 'hot' MnE *warm* (WP i, 687-9)—with spirant and stop representing the Indoeuropean labiovelar. Clearly the matter cannot be discussed in detail here; the reader may be referred to the very detailed treatment of the problem by N. Jokl in Ebert (s.v. *Thraker*). For the purposes of the present paper the point of interest is that there is in Thracian a representation of the Indoeuropean palatals which is, in part at least, not of a spirantic character and may well be of an affricate character (like that of Kafiri *ts*).

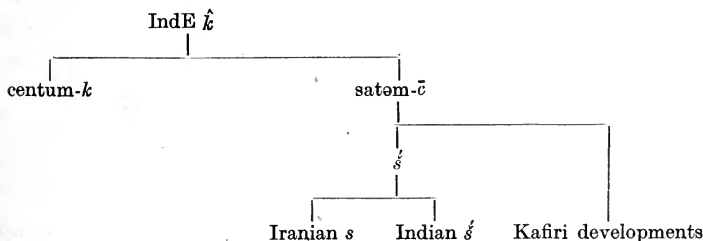
In Phrygian IndE *k̂* appears as *s*; thus *σεμου* (*ν* = OBulg dat. sing. masc. neut. *semu* (cf. Lith *šis* Lat *citrā*).² But it has been suggested that Old Phrygian *οτυφοι* *φετει* 'in the 8th

¹ See H. Pedersen's classic article "Die gutturale im albanesischen", *KZ* xxxvi, 277-340; further N. Jokl, "Ein Beitrag zur Lehre von der alb. Vertretung der idg. Labiovelare," *Mélanges linguistiques offerts à M. Holger Pedersen* (*Acta Jutlandica* IX.i), pp. 127-61. (Also B. F. C. Atkinson, *TPS* 1931-2, pp. 7-10.)

² WP i, 453.

year' (: IndE **oktuwoi*, cf. Lat *octāuus*¹) can only be explained if the assimilation took place when the representative of IndE \hat{k} was a sound similar to that postulated above for Thracian.²

It seems then that we have three presentations of IndE \hat{k} —pure velar, affricate and spirant. In view of the *centum*-development there seems no adequate reason for rejecting the classical view³ that the phoneme was originally a palatal. The spirant-presentation is predominant in the *satəm*-languages and an affricate presentation seems to be attested in Thraco-Phrygian and Kafiri. The three presentations fall into place if we imagine some such development as the following. IndE \hat{k} was originally a palatal; in the *centum*-languages it fell with the pure velars. In the *satəm*-languages it first became some sort of affricate (in my notation, \bar{c}); this stage or something similar to it is the origin of the Thraco-Phrygian and Kafiri phonemes. Elsewhere in the *satəm*-languages this \bar{c} developed into a spirant. Thus we may adequately describe the early Aryan development of the phoneme by means of the following pattern of descent:—



In concluding this section it may be noted that in the above pattern of descent the Indian and Iranian developments stand in contradistinction to that of Kafiri. This view of the matter does not conflict with Morgenstierne's conclusion (accepted here—p. 52) that, in general, Indian and

¹ WP i, 173.

² F. Solmsen, *KZ* xxxiv; 50 ff., 61; Ebert s.v. *Phryger* A § 2.

³ Brugmann pp. 157 ff.; Meillet, *loc. cit.*

Kafiri stand in contradistinction to Iranian. I have already referred to a somewhat similar state of affairs in Balto-Slavonic, where the *š* of Lithuanian stands in contradistinction to the *s* of Slavonic and also to that of Old Prussian and Lettish. In both cases it is merely a question of the survival of an ancient feature.

10) *The special development of \hat{k} in the group $\hat{k}t$*

In Sanskrit the group appears as *ṣt*; cerebralization of the representative of IndE \hat{k} has taken place.¹ Old Iranian has *št*; \hat{s} in this position has not gone on to *s*.² Kafiri seems not to be markedly divergent from Indian on this point. Thus Skt *áṣṭāu* Av *ašta* Kati (*v*)*ušt* Ash *ōṣt*: Lat *octo* '8' (WP i, 172-3).

Summarizing, it seems that the lines of descent of \hat{k} and $\hat{k}t$ from PrIndE to IOrgan are:—

$$\begin{aligned} \hat{k} &> \bar{c} > \hat{s} > s \\ \hat{k}t &> \bar{c}t > \hat{s}t > \check{s}t. \end{aligned}$$

11). IndE $\hat{k}st$. There are two ways of attacking the problem presented by the development of this phoneme-group in Aryan. The first is to investigate the development of $\hat{k}s$ and "add" it to that of *t*; the second, to take cases in Aryan where $\hat{k}st$ is thought to have been present and ascertain the Aryan representations actually found. Here I shall adopt the second approach and I hope that it is legitimate to do so. I shall thus avoid the complications of the first method which involve the history of $\hat{k}s$, one of the most difficult and obscure sections of the phonology of the *satəm*-languages.

Above, I have given **sēksth̥*, **šēksth̥* as forms due to analogy between **sēpth̥* and **sēks* or **šēks*. Theoretically this seems reasonable enough. There is, however, considerable doubt as to whether the group $\hat{k}st$ could exist in PrIndE.

¹ Wackernagel I. §§ 145, 202.

² *Grdr* I. §§ 27b.3, 45.

And it is extremely difficult to obtain a control ; if we imagine, for instance, that *ĥst* could not exist but appeared phonologically as *ĥt*, then it is also possible to imagine that this *ĥt* changed back to *ĥst* under the influence of a suitable analogy, if some later linguistic stage admitted the group *ĥst*. Thus we may imagine that, phonologically, the ordinal to **sĕĥs* was **sĕĥtō-* but that analogy with the cardinal may have reinstated the form **sĕĥstō-*. In the actual languages forms of both types are recorded ; thus, on the one hand (with apparent loss of *s*) Gk *ἐκ τοῦ* < **eks tou* (WP i, 116), Gk *τέκμωρ* < **τέκσμωρ* < **k^uĕĥsmōr* (WP i, 510-11), Gk *ἔκτος* OHG *sĕhto* beside Lat *sextus* OHG *sĕhsto*.¹ It is, of course, easy to understand how an aphonological *s* could be reintroduced into *ĥt* to give *ĥst* by analogy, but the converse process hardly seems possible. In all language-groups, therefore, it seems correct to assume *ĥt* as the parent in all cases where we might be led to expect *ĥst* unless there is evidence from that language-group to the contrary.

Examples are, naturally, rather hard to find. But Skt 3 sing. pres. ind. *cāṣṭē* (< IndE **k^uĕĥstai*) beside 3 pl. *caṣṭāṭē* (< IndE **k^uĕĥsntai*) 'to seem, see' and, similarly, Av *čašte* beside *čašaitē* 'to teach' (this latter form with the normal Iranian representation of *ĥs* as *š*²—thus later Av *mošu* 'immediately' Lat *mox*³) to Gk *τέκμωρ* (WP i, 510-11) seems to show that, in Aryan, there is no reason to assume that *ĥst* is treated otherwise than as if it had been *ĥt*. Thus our forms ↓ IndE **sĕĥst^h*, ↓ IndE **sĕĥst^h* are to be regarded as "coalescing" with ↓ IndE **sĕĥt^h*, ↓ IndE **sĕĥt^h*.

¹ See further H. Osthoff and K. Brugmann, *Morphologische untersuchungen auf dem gebiete der indogermanischen sprachen* iv, 329 note ; H. Hirt, *Indogermanische grammatik* I, § 337.2 ; W. Vondrák, *Vergleichende slavische grammatik* i, 369 ; H. Pedersen, *KZ* xxxvi, 291 ; K. Brugmann, *Griechische grammatik* § 114 ; H. Hirt, *Handbuch der griechischen laut- und formenlehre* § 199.3 ; F. Stolz and J. H. Schmalz, *Lateinische grammatik* (5th ed.) § 146 ; C. Juret, *Mémoires de la Société de Linguistique de Paris* xx, 135-9 ; C. D. Buck, *A grammar of Oscan and Umbrian* § 145.1.

² *Grdr* I. § 34.

³ WP ii, 303-4.

II

8). \bar{s} . The only point that concerns us here is that OIran $xš$ gives Ossete xs and develops a prosthetic vowel; thus Oss *äxsäw* Av *xšap-* Skt *kṣap* 'night' (Miller §§3.5, 33.8).

9). OIran s , both initial and medial, remains in Ossete¹; thus Oss *surx*, *šix* Av *suxrō* MnPers *surx* Skt *śukrá-* 'red'; Digor *äwdesun* Iron *äwdisin* Skt *diśati* 'to show': Lat *dīco* (WP i, 776).

10). OIran $št$ becomes *st* in Ossete²; thus *ast* '8' Av *ašta* (see p. 58).

I have now sufficiently discussed the Indoeuropean side of the problem. But, in conclusion, I wish to make two remarks.

Later, I shall frequently be dealing with problems of lautersatz and the distinction between sound and symbol is particularly important in studies of this kind. The written symbols of phonemes are unhypothetical quantities only in the case of modern languages where the phonetic character of the phonemes can be directly observed. Thus, taking an example from English, we have the series MnE *gold* < OE *gold* < IndE **ǵhltō-* (WP i, 624); the initial written symbol is unhypothetical in the MnE word ($g = [g]$), hypothetical in the OE word ($g = [g]$ or $[ɣ]$?),³ still more uncertain in the case of the IndE word. The standard written symbols for the phonemes of PrFU and PrIndE may easily give rise to confusion. Thus in Indoeuropean philology the symbols \bar{s} and \acute{s} can be used for the same phoneme⁴ whereas in Finno-Ugrian they represent different phonemes (see p. 72). (It would of course be fallacious to suppose that either PrFU \bar{s} or \acute{s} would be an especially good lautersatz for Aryan \bar{s} .)

¹ Miller § 33.2.

² Miller § 33.9.

³ K. D. Bülbring, *Altenglisches elementarbuch* §§ 486-7.

⁴ Thus Skt $\bar{\text{श}}$ is transliterated \acute{s} by Brugmann and \bar{s} by Wackernagel.

Lautersatz problems, if the lautersatz is recent, can sometimes be assisted by reference to the modern languages, where we know the phonetic character of the phonemes. In our case this is not so; for instance, it is obvious that the Ossete phonemes are too recent for any argument to be based on their phonetic character.

I turn now to the Finno-Ugrian side of the matter and, by way of preface, two points must be discussed.

I) *The s-sounds of Finno-Ugrian*

The classical theory is that expounded by H. Paasonen in *Die finnisch-ugrischen s-laute* (SUST xli). It may be summarized as follows. There is in Mordvin and in the two Permian languages, Komi and Udmurt, a distinction between an unpalatalized *s* and a palatalized *ś*. To the unpalatalized *s* of these languages there corresponds in general *l t t ʒ* in the Khanty dialects, *t* in Mansi, *s* in Lappish; in Hungarian the phoneme vanishes. Whereas to the palatalized *ś* of Mordvin, Komi and Udmurt there corresponds in general *s* in Khanty, *s* or *š* in the Mansi dialects, *č* in Lappish, *sz* in Hungarian. In Baltic Fennic and Mari the two phonemes are not distinct for both Md K U *s* and Md K U *ś* appear as *s* in Finnish and *š* in Mari. Thus, on the one hand, [Md *seł* / K *sıl* / U *sul* : Kh *löl*, *lól*, *tət*, *ʒöl* / Mn *täl* / Lp : S *salla* N *sä'llä* K *sall* / H *öl* : F *syli* / Ma *šəl*, *šülö*, *šü'l'o* 'fathom'¹—with Md K U unpalatalized *s*; and, on the other hand, [Md *šel'm'e* *šel'm'e* / K *šin* / U *šim*, *šin* : Kh *sem*, *sèm* / Mn *säm*, *šäm* / Lp : S *t'š'al'mē* N *t'š'äl'bmi* K *t'š'alm*, *t'š'alme* / H *szem* : F *silmä* / Ma *šin^dzä*, *šin^dzä* 'eye'²—with Md K U palatalized *ś*. It is therefore clear that we are dealing with two phonemes, distinct in PrFU, which have fallen together in Baltic Fennic and Mari and have been kept apart elsewhere; these two phonemes are usually denoted by PrFU *s* (> Md K U *s*) and PrFU *ś* (> Md K U *ś*).

¹ Szinnyei p. 26.

² Szinnyei p. 27.

I have said that the palatalized phoneme, PrFU *ś*, corresponds to *s* or *š* in Mansi. Toivonen has recently suggested (*SUST*, lxvii, 377–84) a modification of Paasonen's theory to account for the Mansi dichotomy. He points out that in some words Md K U *ś* corresponds to *s* in all the Mansi dialects, whereas, in other words, Md K U *ś* corresponds to *s* in some dialects, to *š* in others. Thus, on the one hand, [Mn : TJ *sart* TČ, KU *sart* VNK *sar't* LO *sört* So *sörd* / Kh : K *sört* J *sàrt* / K *šir* 'pike'¹; and, on the other, [Mn : TJ, TČ *šem* KU *šəm* P, VN *šim* VS, LU *šim* ∞ KM *səm* KO *sim* LO *sim* So *sim* / Kh : DN *səm* V, Vj, Trj *səm'* / H *szív* / K *šelem* / U *šulem* / Ma : KB, U, M *šüm* / Md : E *šed'ej* M *šed'i* / 'heart' / Lp *čađa* 'per, trans', etc. / F *sydän* 'heart'.² Toivonen suggests that in the first case (Mansi, all dialects *s*) we are dealing with a PrFU palatalized *ś* which has given a PrMn *s*, remaining in all the Mansi dialects as *s*; and that, in the second case (Mn *s* ∞ *š*) we are dealing with a PrFU palatalized *š* which has given a PrMn *š*; in some dialects this PrMn *š* has given *s* (thus falling together with *s* < PrMn *s* < PrFU *ś*), in others it has remained as *š*. Everywhere in Finno-Ugrian save Mansi, PrFU *š* and *ś* have fallen together.

"PrFU *s*, *ś*, *š*" and "PrMn *s*, *š*" are, of course, merely symbols (cf. p. 70). Yet these symbols probably represent the actual sounds fairly accurately. The *s*-like character of both phonemes is attested by the fact that in the majority of the languages an *s*-like sound results. The distinction between palatalization and the lack of it is attested in two of the branches of Finno-Ugrian—in Mordvin and in the Permian languages. And the Mansi data can hardly be explained save on Toivonen's theory.

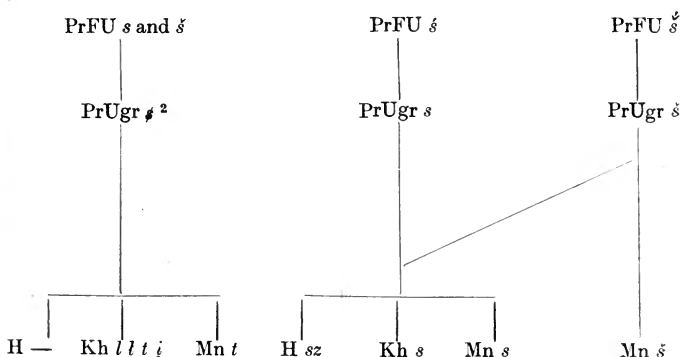
The position in the Ugrian languages deserves further consideration. In Khanty, PrFU *s* appears as *l*, *l̥*, *t* or *ɟ*, in Mansi as *t*; in Hungarian the phoneme vanishes. It would no doubt be rash to attempt a guess at the character the

¹ Toivonen p. 377.² Toivonen p. 378.

phoneme had in PrUgr, but it is at all events improbable that it resembled any *s*-like sound. PrFU *ś* appears as *s* in all three Ugrian languages; in all probability, therefore, it resembled a normal unpalatalized *s* in PrUgr itself. The third phoneme, PrFU *š* is more difficult; the Mansi conditions no doubt merely reflect a survival. The loss of palatalization in Mansi (*š* > *ś*) may, however, well have been contemporary with the loss of the palatalization of PrFU *ś* in Ugrian; the final change of *ś* > *s*, attested by the *s* of Khanty, Hungarian and some Mansi dialects, would then be later.

One more phoneme must be mentioned here to complete the *s*-series. This is PrFU *ś* (unpalatalized). In its main Ugrian development it falls together with PrFU *s*, giving *t* in Mansi, *l*, *ł*, *t*, *ł* in the Khanty dialects and vanishing in Hungarian; in the other Finno-Ugrian languages it remains as *ś* save in Baltic Fennic (> F *h*) and Erz'a-Mordvin (> *tš*). Thus [H *egér* / Kh: *lò'ηgər* Δ*ε'ηgər* *teŋkər* *ʒò'ηk'ər* / Mn *teŋgər* *təŋkər* *təŋər* / K *šyr* / U *šyr* / Md: M *šejər* E *tšejér* / F *hiiri* 'mouse'.¹

The Ugrian developments may then be represented by means of the following diagram:—



¹ Szinnyei p. 27.

² *š* denotes a sound which is not *s*-like.

II) *IndE -m in Finno-Ugrian*

In Groups 7b (F *seitsemän*) and 10a (F *-deksan*) it might well be suggested that IndE final *-m* is preserved in Finno-Ugrian (this is clearly not the case in Group 100 (F *sata*)). But no argument from Finno-Ugrian back to Indoeuropean can be made on this point because the true state of affairs may well have been masked by contamination with a native Finno-Ugrian suffix of somewhat similar form—that found in F *sydän* (gen. sing. *sydämen*): H. *szív* ‘heart’ (see p. 72) and K *gožem* ‘summer’: K *gož* ‘heat of the sun’.

I turn now to the forms of the Groups in detail.

100

The group appears to be of PrFU age and the reconstruction of the protoform **šāta* ∞ *šāda* presents no difficulties. The Mansi alternation *s* ∞ *š* points to an initial PrFU *š* (see p. 72) and the medial consonant is clearly PrFU *t* ∞ *δ* as in H *kéz* ‘hand’ (see below).¹ The *a*-vowels of Finno-Ugrian are almost the only ones about which much is known. In his article on these vowels, Z. Gombocz² gives Group 100 (F *sata*) as showing the vowel which he calls PrFU *ā*; the vowel-congruence is essentially parallel to that in [H *hal* / Kh *χ₁ul k₁ul* / Mn *k₁ul kul* *χ₁ul* / Ma *kol* / Md *kal* / F *kala* / Lp : S *kuöllē*, K *küll*, N *güöllī* / ‘fish’³; the long vowel in H *száz* (also in Mansi) is paralleled by that in [H *kéz* Mn *kāt*, *kād* : Kh *kèt k₁’òt₁* / K *kī* / U *kī* / Ma *kit* / Md *k’ed’ k₁’ed₁* / F *käsi* / Lp : S *kēesta* K *kit* N *gìetā* / ‘hand’⁴].⁵

The final vowel involves some discussion of the difficult question of the vocalism of syllables other than the first in Finno-Ugrian. It will suffice to say here that the current theory is that in PrFU only two vowel-pairs were possible

¹ So Szinnyei p. 36.

² *NyK* xxxix : 242, 252.

³ Szinnyei p. 24.

⁴ Szinnyei p. 23.

⁵ On the long vowel see Z. Gombocz, *Magyar történeli nyelvtan* III, 4 ff.

in syllables other than the first; viz. *a ü* and *ę e*, the latter pair being rather rare. The first pair normally appears as *a ä* in Finnish, as *e* in Lappish and as *a o* in Mordvin; the second as *e* in Finnish and as *ä* in Lappish. Thus with PrFU *a ä*: F *jalka* / Lp *juol'ge* / Md *jalga jalgo* / 'leg'; with PrFU *ę e*: F *käte-* / Lp *ciettä* 'hand'. The diversity of the vowels of the second syllable in Baltic Fennic (F *i o ö u ü*) is to be considered as due to a later development.¹ F *sata* / Lp *čuötte* / Md *sada sado*, with final vocalism identical with that of F *jalka* / Lp *juol'ge* / Md *jalga jalgo*, thus clearly allow us to postulate a PrFU form with *a* in the second syllable.

We now compare **šāta-* ∞ *šāda-* with the etymon ↓ IndE **kmtō-* and draw the following conclusions:—

(i) The initial *š* can hardly be a lautersatz for anything but *ṣ̌*.

(ii) The etymon must clearly have Aryan *a*, not PrIndE *m̄*.

(iii) Nothing can be inferred from the final Finno-Ugrian vowel; it may represent Aryan *a*, or, with lautersatz, an earlier *ō*.

7aa and 7ab

H *hét* is usually explained² as from **ét* by analogy with *hat* '6'. This form **ét* can be taken as congruent with the Khanty form; both would imply a PrFU form with an unpalatalized *s*.

The Mansi forms do not show the variation *s* ∞ *š*; they all have initial *s*. They would thus imply a PrFU form with a palatalized *ś* and cannot therefore be congruent with the Khanty and Hungarian forms.

All the Ugrian forms are congruent as regards the representation of the IndE medial *pt*; the consonants in question would imply a PrFU *pt* ∞ *βt*—a reasonable lautersatz for an IndE *pt*. In Khanty a svarabhakti vowel has been introduced

¹ The theory is due to P. Ravila who, in 1939, was preparing a large work on the subject. He has indicated his point of view *FUF* xx, 83-120; xxiii, 60.

² E.g. by J. Szinnyei, *NyK* xxxiii, 476.

between the *p* and the *t*, whereas in Mansi and Hungarian the *p* has been lost. A control for the development postulated is afforded by F *hapsi* (< **hapti* < **apti*, by analogy with F *haven* 'beard') / Mn *āt* / 'hair' / Kh : DN *ūbβ̄t̄* Ni *ūp̄²t̄* V, Vj *āwā̄t̄* 'hair of the head' and Ma *optem* / Mn *ūti* 'to bark'.¹

As is well known the vowel-phonology of Finno-Ugrian is in general far from certain. It seems, however, clear that the vowel of the Hungarian and Mansi forms derives from an original front, not a back vowel. Kannisto p. 3 considers the vocalism as identical with that of F *käsi* H *kéz* (: *kezem* 'my hand')—see p. 74, deriving from a PrMn *ä*. The Khanty vowel too apparently derives from a front vowel, PrKh *ä* (Karjalainen p. 276), the vocalism being similar to that of [DN *sāb̄t̄* Trj *sāp̄²̄* V, Vj *sāwāl̄* Ni *sāp̄²t̄* Kaz. *sāb̄t̄* O *sāb̄l̄* [K *sāp̄t̄* J *sāp̄l̄*³ 'neck']

It seems then that the Indoeuropean form underlying the Ugrian words for '7' was twice borrowed—as if its representation had been (i) PrFU **sāpt-* ∞ *sābt-*—giving Group 7aa (H *hét* and Kh *tap̄t̄*) and (ii) PrFU **sāpt-* ∞ *sābt-*—giving Group 7ab (Mn *sat*).

We may now consider the Ugrian words for '7' in relation to their etymon ↓ IndE **sēpt̄n̄* :—

(i) Etymons so early as to have final *-m* are hardly possible, for we should expect some trace of the *-m*.

(ii) As I have said above (p. 61), a vowel of *ä-* (not *a-*) quality is probable in the etymon. The suggestion that the borrowing took place at some time during the period when PrIndE *ě* was in process of changing to Ar *ǎ* is very plausible.

(iii) There is no reason why an *s*-sound should have been used as a *lautersatz* for the Iran *h* of a form such as Av *hapta*, and we must therefore assume that the words were borrowed

¹ See E. N. Setälä, *FUF* xii, 166–70.

² Karjalainen p. 2.

³ *DP* No. 2119.

before the change Ar *s* > Iran *h* took place. They are therefore not of Iranian provenance.

There now remains for discussion only the apparent variation between the implied initial PrFU *s* and the implied initial PrFU *ś* as representations of the *s* of Indoeuropean.

Toivonen (*SUST* lxvii, 377-84) has called attention to this variation, paralleling it with unexplained variations in native Finno-Ugrian words—between *s* and *ś*: Mn *sūa sūl* : U *sul* / Md *sud* 'bark'¹ and between *š* and *ś*: Mn : TJ *šat* TČ *šât* KU *šôt* P *š'at* VS *šo't* LU *šot* KM, KO *sò't* LO *sôt* So *sāv* 'happiness' / Kh : Kaz *sə't* O *sət* 'power', Kaz *sə·təŋ* O *sōdəŋ* 'happiness' : K *šud* / U *šud* 'happiness'.

It might of course be suggested :—

(i) That the words for '7' afforded a further example of the unexplained variation described above.

(ii) That the *s* of Indoeuropean was different from PrFU *s* and that PrFU *s* and PrFU *ś* were alternative lautersätze for it. This type of lautersatz is not uncommon. Thus, in the Scandinavian loan-words in English, ON *ou* (> Icel *au*), is represented by *ō*, *ou* and *au*, e.g. OE *rōda* : OIcel *rauðr* ; ME *gōk*, *gowk*, *gauk* : OIcel *gaukr*.²

But here I wish to suggest another explanation. Namely, that the etymon was borrowed *twice* into Ugrian. First, when the PrFU *s*-phonemes were still intact in Ugrian ; at this date it is reasonable to assume that the *s* of **säpt-* would have been replaced by Ugr *s* (< PrFU *s*). Later Ugrian *s* was lost in Hungarian and gave *l t t ĩ* in Khanty ; hence H **ét* (> *hét*) and Kh *tapət*. And second, after the Ugrian changes had operated on the *s*-phonemes of Finno-Ugrian. The Ugrian representation of PrFU *s* was presumably no longer an *s*-like sound (see p. 73, above) and so could not represent the *s* of **säpt-* ; Ugr *s* (< PrFU *ś*) was the appropriate lautersatz ; hence Mn *sat*, with *s* in all dialects.

¹ Further examples will be found in Paasonen, *s-laute*.

² K. Luick, *Historische grammatik der englischen sprache* § 384.2.

7b

Group 7b (F *seitsemän*) is represented in all the Finno-Ugrian branches save Ugrian. Collinder has made a detailed study of the group (and especially of the Lappish forms) in his article "Die wörter für fünf, sechs und sieben im lappischen", *Festskrift til Rektor J. Qvigstad (Tromsø Museums Skrifter II)*, pp. 356-374. His conclusions may be concisely expressed by saying that all the forms of the Group may be considered as implying a PrFU **šejt'šemä-* or **šejt'šemä-* (and, since the form is not present in Mansi, it is clear that we must replace the initial *š* by "*š* or *s*"—see p. 72).

The initial consonant presents no difficulty (the Lappish forms with *k* instead of *č* are due to analogy with *gut'tá* '6' and *gawce* '8').

The question whether the *i* of the Baltic Fennic forms is original or parasitic is one of some difficulty. Since the stem-vowels of the Lappish forms can all be explained from a PrLp *e*, acceptance of the first hypothesis leaves the absence of the *j* in Lappish for discussion; in this connection too it may be mentioned that the stufenwechsel of the Lappish forms of Group 7b is difficult. There is some evidence for the loss of *i* as the second element of a diphthong in Lappish before *č*, *š*; cf. *laš'še* = F *laiha* (< Baltic **laisa-* = Lith *lėsas*) 'thin' (WP ii, 388). Collinder is of the opinion that the *ei* is original.

The medial *t'š* or *t's* has been fully discussed by Y. H. Toivonen *FUF* xix; 166, 226 ff.

There is also very considerable difficulty as to the final part of the form. There has certainly been analogy between the nominative and accusative; furthermore, it is difficult to ascertain how far there has been analogical interaction between Groups 7b (F *seitsemän*), 8a (F *kahdeksan*) and 9a (F *yhdeksän*).

We may now compare our reconstructed protoform for Group 7b (F *seitsemän*) with the postulated etymon ↓ IndE

**sěktń*, **šěktń* (↓ IndE **sěptń*, **šěptń* are clearly impossible as etymons) :—

(i) There seems no reason why the initial Finno-Ugrian phoneme should not be a lautersatz either for the *s* of Indo-European before it gave Iran *h*, or for some stage of *š*.

(ii) There is perfect agreement as to the *ě*.

(iii) I suggest that *jt'š* or *jt's* is a possible lautersatz for *čt* ; a control is hardly to be expected.¹

(iv) There is certainly no reason why the final *-m* of the Indoeuropean etymon should not be represented (as it appears to be) in the Finno-Ugrian forms. But it is impossible to prove that this actually is the case, by reason of the possible masking of the suffix discussed above (p. 74), and also because of the analogies discussed by Collinder.

There seems therefore no reason to suppose that Group 7b (F *seitsemän*) is of provenance other than that suggested here. But there are in the Samoyede languages words for '7' rather similar to Group 7b (F *seitsemän*). If these words are in fact cognate with the latter then the whole of the above theory falls to the ground.

We may conveniently arrange the Samoyede forms in the following groups :—

Ia) [N *sihiw*² ([Knd *šeu*³] [I *šajbua*⁴] [Ye *seho*⁵] [Km *sei'bü*⁶] [*seigbi*⁷] [Kb *sseigbe*⁸] [Khotov *seigbe*.⁹

¹ If, for any reason, we disagree with Collinder's view that the *i* of Baltic Fennic is original and not parasitic and accept the converse, then we must assume that *t'š* or *t's* is a lautersatz for *čt* ; there appears to be nothing against this.

² JIPNS i, 35.

³ Paasonen, *KSz* xv, 92.

⁴ JIPNS i, 68.

⁵ JIPNS i, 85.

⁶ M. A. Castrén, *Grammatik der samojedischen sprachen* pp. 192-3.

⁷ D. G. Messerschmidt's *Tagebücher* (in J. Klaproth, *Asia Polyglotta*) : Entry of 26th December, 1721 (Donner p. 9).

⁸ P. S. Pallas, *Reise durch verschiedene provinzen des russischen reichs* iii, 374 (Donner p. 15).

⁹ P. J. von Strahlenberg, *Das nord-ostliche theil von Europa und Asia* (Donner p. 8).

Ib) [Mt *keipbe*¹ [küibe² [T *kéibü*³ [Kr *gydby*.¹

IIa) S—Tym dialect [*selçi*.⁴

IIb) S—LV [*helzi*⁵ (= Castrén's [*hélz hielz*]⁶).

Then Ia is certainly congruent to Ib and so is IIa to IIb. But I is not congruent to II.⁷ For Motor and Taigi *k* can certainly correspond to N *ś s* (Knd *š*) I *s* Ye *s* Kb *s* Km *š* (S *š ∞ s*); thus [Km *šüimü* 'mare' / S *šümä šüma šöwa sūwa süwwa* 'hen-capercaillie' / N *sibe-ko sibe-ku* (Knd *šibeku*) 'female' / Kb *sjuima* 'mare': Mt *keibe* 'mare'.⁸ And, in Sel'kup, Tym *s* regularly corresponds to Lower Vasyugan *h*; thus [Tym *saji*: LV *haji* 'eye'.⁹

So far we have been dealing with internal Samoyede phonology, a subject itself in no advanced state. But when we leave this and attack the problem of linking up Samoyede phonology with that of Finno-Ugrian, we are on very unsafe ground. And indeed it is clear that one of the main tasks of the Finno-Ugrian philology of the next few decades must be first, the reconstruction of a reliable Primitive Samoyede; second, the investigation of the question whether the reconstruction of a Primitive Uralian is possible and, if it prove to be so, the achievement of the task. At the present state of knowledge the following must suffice.

A) *The initial consonantism.* The normal correspondent of a PrFU *ś* (i.e. " *ś* or *š*"—see p. 72) is *s* (*ś, š*) in all the Samoyede languages, save in those dialects—Lower Vasyugan dialect of Sel'kup, Konda dialect of Nenets—where this *s* has become *h*. Thus [N *saeu* Knd *haem* / I *šajme* / Ye *sei* / S *saiji sai hei*

¹ P. S. Pallas, *Reise durch verschiedene provinzen des russischen reichs* iii, 374 (Donner p. 15).

² J. Klaproth, *Fundgruben des Orients* v, 67 (Donner p. 23).

³ J. Klaproth, *Sprachatlas*, Tafel XI (Donner p. 50).

⁴ *JIPNS* i, 106.

⁵ Letter from Professor Prokov'iev, 25/2/39.

⁶ M. A. Castrén, *Grammatik der samojedischen sprachen* pp. 192–3.

⁷ So Collinder p. 374; Z. Gombocz, *Festschrift Vilhelm Thomsen* p. 12.

⁸ Paasonen, *KSz* xv, 84.

⁹ Professor Prokov'iev, *loc. cit.*

hai / Km *sima* / Kb *sima* / M *sima* / T *šime-dä*¹: H *szem* / etc.² 'eye'. But, in a few cases, while the majority of the Samoyede languages have the normal correspondent, the Konda dialect of Nenets has *š* (not *h*) and Motor and Taigi have *k* (Karagass *ɛ*). Thus [N *seai siei*: Knd *šej* / I *sa, soa* / Ye *seo* / Km *sī* / Kb *sei* /: M *keje-m* / Taigi *kei-m*³: H *szív*, etc.⁴ 'heart'. The reason for the difference between exceptional and normal treatment is not clear; see Paasonen, *KSz* xvi, 26 ff. But there is thus no doubt that the Samoyede and Finno-Ugrian forms of '7' could be regarded as congruent in their initial consonantism.

B) *The medial consonantism.* The Samoyede correspondent of a PrFU *t's* or *t's̄* is either a spirant or an affricate; thus [N *ŋat'e-ky ŋace-ky* 'young, child' / Ye *et'i et'e* 'young' / Km *eši* 'child' / Kb *ese* 'boy' / T *iši* 'child'⁵: K: I, U, V, S, IU *it's-moñ* 'bride, young woman' / U: U, G, B *i t'si-meñ* M, U *i t's̄i-meñ* J, M, S *i t's̄i-meñ* 'young wife'⁶; cf. also, possibly, [Liv *müts* 'to sweep': S *mešennam*, etc. 'to clear away'.⁷ It is thus certain that the medial consonantism of neither of the Samoyede words for '7' can possibly correspond to that of Group 7b (F *seitsemän*).

On the whole then we must reject the suggestion that Group 7b (F *seitsemän*) and either of the (mutually incongruent) Samoyede words for '7' are descended from the same Primitive Uralian form.⁸ And this is what we should expect on general grounds. The Samoyede numerals are unrelated to those of Finno-Ugrian (*NFU* pp. 11-13) and, in view of the sextal system of Finno-Ugrian, 7 is the last numeral we should expect to find already present in Primitive Uralian.

Collinder (pp. 373-4) tentatively suggests that one of the Samoyede words for '7' (Group I: I *šajbua*, etc.), Group 7b

¹ Paasonen, *KSz* xiii, 241 (and xvi, 14).

² See above, p. 71.

³ Paasonen, *KSz* xiv, 42 (and xvi, 14).

⁴ See above, p. 72.

⁵ Paasonen, *KSz* xv, 96.

⁶ Uotila p. 152—taken as with PrFU *t's* (*t's̄*).

⁷ Paasonen, *KSz* xv, 98-9.

⁸ So Paasonen, *KSz* xv, 92.

(F *seitsemän*) and IndE **sēptn̄* all descend from one common "Indo-Uralian" form. This suggestion is of course due to the similarity of the three words. There is undoubtedly a coincidence here, but there seems to me no reason to think it other than due to chance.¹

There seems then no reason to accept Collinder's suggestion that we are dealing here with an extremely old "Indo-Uralian" word for '7'. And, on general grounds, I think that this is a satisfactory conclusion. We know little of any earlier numeration-systems underlying either Samoyede or Indoeuropean, but it would be very surprising to find only the number '7' represented in this way.²

10f

Y. H. Toivonen, *FUF* xvii, 286, tentatively suggests that this Permian form is congruent to Group 10a (F *-deksan*). But the arguments which Uotila pp. 172 ff. adduces against this view seem conclusive and the matter need not be further discussed here. It seems clear that Group 10f (KU *das*) represents a much later borrowing of IndE **dēkm̄*.

The following points call for discussion.

(i) According to the accepted view PrFU (like MnF) had initially only unvoiced stops *p, t, k*.³ Permian shows both *p, t, k* and *b, d, g* in the initial position and there is a difference of opinion as to the age and provenance of these voiced initial stops; they have been considered to be of secondary Permian origin by some, by others to have been present in

¹ We could immediately "enlarge" the coincidence by observing that the word for '7' in the Hamito-Semitic family of languages is also rather similar: Assyrian *siba sibi* (fem. *sibittu*) Hebrew *šəḇaš* Arabic *sabʿu*ⁿ Ethiopic *sabzū*; Egyptian *sfχ* Coptic *sašf*. I know that it has been suggested that the Indoeuropean and Hamito-Semitic families are ultimately related (cf. for instance H. Möller, *Vergleichendes indogermanisch-semitisches wörterbuch*) but geographical considerations, apart from anything else, seem to militate against this theory.

² Cf. J. McKenzie, *Leeds Studies in English and Kindred Languages* vi, 1-4.

³ Setälä pp. 1 ff.

PrFU itself; see further Uotila pp. 2 ff. Under these circumstances it is clear that the initial *d* of Group 10*f* (KU *das*) leads to no conclusion as to the age of the borrowing.

(ii) There are admittedly cases in which a Permian *a* apparently corresponds to a front vowel elsewhere in Finno-Ugrian; e.g. F *vehnä* 'wheat': U *važ važ* 'spelt'. But, on the whole, there seems no reason to doubt that the *a* of Group 10*f* (KU *das*) corresponds to the *a* of OIran *dasa* rather than to the *ä* of Oss *däs*. We have, of course, no knowledge as to whether the final *a* was present in the etymon of Group 10*f* (KU *das*) or not.

(iii) The *s* of Group 10*f* (KU *das*) is unpalatalized; it is moreover a voiceless phoneme. In Permian, PrFU *s*, *ś*,¹ *š* become voiced between the first and second syllables; cf., for instance, [F *kuusi*: K *koz* / U *kiz* 'fir']² (Uotila p. 172). *Das* must therefore have been borrowed some time after the completion of this change. The *s* is thus easy to explain, though we naturally know nothing of the actual chronology involved.³

(iv) As I have said above, it is possible that the etymon of Group 10*f* (KU *das*) had a final vowel (: OIran *dasa*, rather than Oss *däs*). There is a well-known apocope in the Permian languages and this has been the subject of a valuable study: Gy. Lakó's *A permii nyelvek szóvégi magánhangzói* (*Finnugor értekezések* No. 2, 1934). Lakó demonstrates that the apocope depends in part upon the quality of the vowel and I find myself in doubt as to how far his views as to the final vowels of PrFU would be in agreement with those current in Finland (referred

¹ *ś* and *ś* fall together in Permian (p. 72).

² T. E. Uotila, *Syrjänsische chrestomathie* p. 104.

³ The "Chuvash" (i.e. Volga-Bulgarian—see Wichmann pp. 129 ff.) loan-words of Permian afford no control here; an isolated case such as U *sesjr*: Chuvash *syvzyr* 'cripple' (Wichmann pp. 14, 93) entitles us to assume that the Permian voicing of *s* between the first and second syllables was complete when this word was borrowed, but the borrowing may have been quite recent.

to above, pp. 74-5). But, at all events, this much is clear. There are three types to consider :—

A) There is apocope both in Komi and Udmurt ; thus F *nimi* : K *ńim* / U *ńim* ‘ name ’ (Lakó, *op. cit.* p. 50).

B) There is apocope in Komi but not in Udmurt ; thus F *lumi* : K *l̄im* : U *l̄im̄i* ‘ snow ’ (Lakó, *op. cit.* p. 6).

C) There is apocope in neither language ; thus F *pääsky* : K *pist'i* (< **piški*) / U *pěski poški*, etc., ‘ swallow ’ (Lakó, *op. cit.* p. 33).

Our form, KU *das*, falls under Type A ; it may have had a final vowel and, if it had, it has been lost both in Komi and Udmurt. We are therefore here only concerned with the dating of the apocope of Type A. For this apocope we have some chronological control—that afforded by the Chuvash loans in both Permian languages. These probably began to be borrowed about A.D. 700 (Wichmann pp. 129 ff.). There is one certain example of a Chuvash loan-word showing apocope of Type A—K *ket's* ‘ hare ’ / U : U *ket's* M, J *ket's̄* ‘ goat ’, MU *ketš* ‘ hare ’ : Pr. Chuvash **käää* (cf. Chuvash *kap'za* ‘ goat ’, *mol-gáč* ‘ hare ’).¹ Apocope of Type A must therefore have taken place after A.D. 700.

It seems therefore probable that the etymon of Group 10f (KU *das*) is *das(a)* ; the age of the borrowing is doubtful, it may well have been late.

10a

The phonology of these Finno-Ugrian forms is difficult. E. N. Setälä, *FUF* xii, 162-6, regards them all as congruent and derives them from a PrFU **kayden-deksam*, **üyden-deksäm*. He points out that :—

a) The first elements, **kayden*, **üyden*, are obviously related to F *kaksi* ‘ 2 ’, F *yksi* ‘ 1 ’, the common Finno-Ugrian words for these numerals, but the details of the relationship are obscure.

b) There has been haplological loss of the second syllable

¹ Lakó, *op. cit.* p. 55 ; Wichmann p. 73.

in Baltic Fennic; thus PrFU **kayden-deksam*, **üyden-deksäm* > **kaydeksam*, **üydeksäm* > F *kahdeksan*, *yhdeksän*.

c) The Lappish and Volga forms are in all probability congruent to the Baltic Fennic forms but the phonology is obscure.

d) The provenance of the "intrusive" η in the Yaransk dialect of Mari is obscure.

e) The final *-m* of **-deksam*, **-deksäm* is attested by forms such as Vatyā *kahšā*, gen. *kahšsamā*, *kahšsemē*; *ühesā*, gen. *ühessämā*, *ühessemē*; Est dialect gen. *kaheksme*, *-ma*; *üheksme*, *-ma*; *kaheksamas*, *üheksamas* '8th', '9th'; Liv *kā'dəksmiñ*, *ū'dəksmiñ* '8 each', '9 each'; *kā'dəksmæz*, *ū'dəksmæz* '8th', '9th'.¹

f) The unpalatalized *s* of **-deksam*, **-deksäm* is attested by the Mordvin forms with *s*.

We may now compare with the etymon, ↓ IndE **dék̄m*. The first two phonemes present no difficulty—clearly **dē* are represented in the Finno-Ugrian form. There is doubt about the final *-m*; it may well be preserved in Finno-Ugrian, but this cannot be proved by reason of possible masking (see p. 74) and of analogical interaction with Group 7b (F *seitsemän*)—see p. 78. And, however we regard it, the medial *ks* of F *-deksan* is difficult.² Setälä, *loc. cit.*, suggests that it may have been a *lautersatz* for IndE *k̄* itself. There existed medially a PrFU phoneme *kk* ∞ *k* as in [F *loukko*: gen. sing. *loukon* 'split' / H *lyuk* 'hole' / Ma *luk* 'split'.³ We have, of course, no exact phonetic knowledge of the character of this phoneme. (Initially, PrFU had two *k*-phonemes, a back one (> H *h*) and a front one (> H *k*); thus F *kala* / H *hal* 'fish',⁴ F *käsi* / H *kéz* 'hand'.⁵) It is clearly not possible to disprove Setälä's hypothesis, but I think that, on the whole, one would have expected PrIndE *k̄* to have been replaced by PrFU *kk* ∞ *k*. I wish therefore to

¹ See also Setälä pp. 400 ff.

² See, for instance, H. Jacobsohn, *SUST* lxvii, 147.

³ Szinyei p. 34

⁴ Szinyei p. 24.

⁵ Szinyei p. 23.

suggest that the *ks* of F *-deksan* is a lautersatz for the phoneme I have denoted by \bar{c} .

The semantic relation between the two elements of the compounds **kaγdendeksam*, **üγdendeksäm* is obscure. It is, however, clear that, if two words mean, respectively, '8' and '9' and their first elements '1' and '2' while their last element means '10', then the numerals must be subtractives (like Lat *undēvīginti*).

All the Finno-Ugrian numerals for '8' and '9' are indeed subtractives.¹ In the Permian languages we have 8*b* [K *kikjamis* / U *t'amis*² (earlier [*kik'jamas*]³)⁴ and 9*b* [K *okmis* / U *ukmis*.² The first elements of these are the PrFU words for '2' (2: F *kaksi* / KU *kik*) and '1' (1*a*: F *yksi* / K *et'i* / U *og*). The second element is a word for '10', widespread in Finno-Ugrian—Group 10*b*, which occurs most clearly as *-mis* for standard *-mijn* in the Udora and Vym' dialects of Komi in the words for '30', '40', '50' and '60'—thus [*nel'amis* beside *nel'amijn* '40'.⁵ It is also found in the Hungarian words for '8', '9' and '30'—*nyolc*, *kilenc*, *harminc* (: 3 H *három*, etc.).

The forms in the Ugrian languages are less uniform. The last element of 8*c* ([Mn *pololu*⁶ / [Kh *řivčl'*]) and 9*c* ([Mn *ontolu*⁶) is doubtless the word for '10', Group 10*c*: [Mn *lou* / Ma *lu* / Lp *loqe* (cf. F *lukea* 'to read, count').⁸ The first element of 8*c* is the same as that of 8*d* (H *nyolc*—with second element already discussed) and is of unknown provenance. The second element of 9*d* (H *kilenc*) is that already discussed, the first element is of unknown provenance, as is also the first element of 9*c* (Mn *ontolu*). The second element

¹ I follow the system of group-numbering used in *NFU*.

² Szinnyei, *Sprw* p. 93.

³ F. Miller, *Opisanie živušchikh v Kazanskoj gubernii yazycheskikh narodov* (a. 1743), p. 99.

⁴ On the phonology of the Udmurt form see Uotila, p. 19.

⁵ Szinnyei, *Sprw* pp. 93–4.

⁶ *JIPNS* i, 177.

⁷ *JIPNS* i, 209.

⁸ Szinnyei, *Sprw* p. 93.

of 9e Kh *jarjaŋ*¹ is clearly 10d [Kh *jaŋ*¹: [DN *ǰə* `η DT *ǰə* `η Fil *ǰə* `η Sogom *ǰə* `η K *ǰə* `η Trj *ǰə* `η V, Vj *ǰə* `η Ni *ǰə* `η Kaz *ǰə* `η O *ǰə* `η² [J *ǰə*η³]⁴; the first is obscure.⁵

In the Finno-Ugrian languages we are thus confronted with subtractives for '8' and '9' of two different types. In Type A the meaning of both parts of the compound is clear—the first means '2' or '1', the second '10' and we have ellipse. Here belong 8a (F *kahdeksan*), 9a (F *yhdeksän*), 8b (K *kikjamis* / U *t'amis*) and 9b (K *okmis* / U *ukmis*). In Type B the meaning of the second element is clear—it means '10'—but that of the first is not. Here belong all the remaining groups—8c (Mn *pololu* / Kh *ɲivət*), 8d (H *nyolc*), 9c (Mn *ontolu*), 9d (H *kilenc*) and 9e (Kh *jarjaŋ*).

¹ JIPNS i, 209.

² Karjalainen, p. 15.

³ DP, No. 365.

⁴ This word is certainly reminiscent of some of the Tungus forms for 10'; cf. Manchu *žuwan* Solon *žuан жу́н* Olcha, Samar *žuа* Negidal *žoан жоа* (W. Kotwicz, *Rocznik orientalistyczny* vi, 179). There is of course nothing inherently improbable in a Tungus loan-word in Khanty; even to-day there are two islands of Tungus (Sym'-Tungus) in the Khanty area (about half-way between the Ob' and the Irtysh, south-east of Narym—see Z. E. Chernyakov, *Karta rasprostraneniya yazykov narodov severa SSSR.*, 1934). With regard to the phonology of the postulated loan it may be noted:—(i) That Kh *jaŋ* is probably to be regarded as having a PrKh *ǰ*, i.e. a slightly-fronted *a*-sound (Karjalainen, p. 15); (ii) The representation of a foreign *ʒ*-phoneme by a Khanty *j*-phoneme can be paralleled. There are words with H *gy* Kh *j* representing the *ʒ*-development of Old Turkish *j* (Z. Gombocz, *Die bulgarisch-türkischen lehnwörter in der ungarischen sprache* pp. 179–80); thus H *gyalom* / Kh: K *ǰatəm* DN *ǰəpəm* 'drag-net' < Old Chuvash **žylym* (: Kirgiz *žylym* Bashkir *jylym* 'drag-net') (Gombocz, *op. cit.*, No. 76); H *gyékény* 'rush, rush-mat' / Kh: DN *ǰəcən* Trj *ǰək* Ni *ǰəkən* Kaz *ǰəcən* 'rush-mat' < Old Chuvash **žikän* (: Kirgiz *žigän* Jagatai *jäkän* 'kind of reed') (Gombocz, *op. cit.*, No. 82). In concluding this note it may be added that the Tungus word for '10' has been borrowed into Motor and Taigi—Mt *dshiuēn* (Pallas, *op. cit.* on p. 79 above, p. 374—Donner p. 15) / T *dzhün* (J. Klaproth, *Sprachatlas*, Tafel XI—Donner p. 50).

⁵ It is probably the use of subtractives for '8' and '9' in Khanty which has occasioned the subtractives for these numerals in the neighbouring Sel'kup and Ket (Yenisei-Ostyak); cf. Sel'kup *ǰittə cəŋkəntəbəl kət* '8', *ukker cəŋkəntəbəl kət* '9' (: *ukker* '1', *ǰittə* '2', *kət* '10'—JIPNS i, 106); Ket *ənəm bəŋsa qoŋ* '8', *qušam bəŋsa qoŋ* '9' (: *qušam* '1', *ənəm* '2', *qoŋ* '10'—JIPNS iii, 231).

The Dravidian words for '9' may profitably be discussed in connection with these Finno-Ugrian subtractives for '8' and '9'. Tamil *onbadu* Malayalam *onbadu* Kanarese *ombhattu* Coorg *oyimbadu* Tuda *onpath* '9' form a congruent set; their second element clearly means '10' (: Tamil *pattu* Old Kanarese *pattu* Tuda *pattu*, etc., '10'), while their first element is usually regarded as obscure.¹ Tulu *ormba* '9' appears to have as its first element the adjectival form of the word for 'one' (Tamil *oru*, etc.); its second element could be a very reduced form of the word for '10'.² It might perhaps be suggested that the first element of the set Tamil *onbadu*, etc., was an abbreviated form of the word for 'one' (: Tamil *onru*, etc.). It will thus be seen that certainly Tulu *ormba* '9' and possibly the set Tamil *onbadu*, etc., afford an exact parallel to our Type A—a subtractive numeral with ellipse.³ In general it may be noted that subtractive numerals are not uncommon. Thus we have in Malay *délapan* (earlier *dualapan*) '8', literally '2 taken [from 10]' (: *dua* '2', *alap* 'to take'); *sěmbilan* '9', literally '1 taken [from 10]' (: *sa* '1', *ambil* 'to take').⁴

The detailed part of this paper is now finished. There remain two obvious questions:—I) Is there any contradiction in the preceding, somewhat complex, argumentation; II) Do the other Indoeuropean loan-words in Finno-Ugrian afford us any useful control?

The answer to the first question is clearly in the affirmative

¹ See R. Caldwell, *A comparative grammar of the Dravidian or South-Indian family of languages* (3rd ed.), pp. 346 ff.

² Telugu *tommidi* '9' has the same second element—'10'; its first element is probably to be connected with Tamil *tol* 'hole; to make a hole in' and *tommidi* '9' might thus mean, literally, something like 'deficiency—ten'; cf. the same first element in Tamil *tonnuru* '90' (: *nuru* '100') and Tamil *toḷḷāyiram* '900' (: *āyiram* '1000').

³ I am indebted to Professor T. Burrow for the Dravidian information.

⁴ See Ph. S. van Ronkel, *Oostersch Genootschap in Nederland: Verslag van het 8^o Congres gehouden te Leiden op 6-8 Januari 1936*, pp. 43-6.

and the contradiction must now be eliminated. Group 100 (F *sata*) certainly represents a borrowing into PrFU itself—congruent forms are present in all the branches of Finno-Ugrian. And I have suggested that, of the series IndE $\hat{k} > \bar{c} > \acute{s} > s$, it is the \acute{s} that is attested by the PrFU form. On the other hand, Group 10a (F *-deksan*) appears not to represent a borrowing into PrFU; it is not present in Ugrian or Permian and it might be supposed that the borrowing did not take place until after these languages had separated out. But I have suggested that, of the series IndE $\hat{k} > \bar{c} > \acute{s} > s$, it is the \bar{c} that is attested by the Finno-Ugrian forms. Therefore I have implied the later stage of Indoeuropean as co-existing with the earlier stage of Finno-Ugrian, which is absurd. And, to eliminate this absurdity, I put forward the following theory. Despite appearances, Group 10a (F *-deksan*) does represent a borrowing into PrFU itself and, moreover, an earlier one than does Group 100 (F *sata*); however, the Ugrian and Permian congruents of Group 10a (F *-deksan*) died out and were replaced. Further, Group 7b (F *seitsemän*) also represents a borrowing into PrFU and its Ugrian cognates died out and were replaced by Groups 7aa (H *hét*) and 7ab (Mn *sat*).

The second question—the matter of useful control—is of course a very large one. To answer it adequately would in effect involve a rewriting of H. Jacobsohn's well-known book, *Arier und Ugrofinnen*, in the light of modern Finno-Ugrian philology. Here all that can be attempted is to discuss, very briefly, the Finno-Ugrian representations of the Indoeuropean phonemes and phoneme-groups given on p. 60.

(1) IndE $\acute{e} > \text{Ar } \acute{a}$: (i) \acute{e} in Group 10a (F *-deksan*); (ii) \acute{a} in Groups 7aa (H *hét*) and 7ab (Mn *sat*). There are cases where IndE \acute{e} is represented and also cases where Ar \acute{a} is represented. The first type is discussed by H. Jacobsohn in his last article (published posthumously, *SUST* lxxvii, 136-47); see also his *Arier und Ugrofinnen* pp. 161 ff. This representation is attested, for instance, by [F *mehiläinen* /

Md *mekš meš* / H *méh* 'bee'¹: Skt *makṣā makṣikā* 'fly, bee' Lett *masalas* 'horse-fly' (WP ii, 225); F *rihma* / Lp *rašme* 'yarn': Skt *raśmī* 'thong' (the Finno-Ugrian vocalism points to an earlier *ě*).² The second representation is clear in Mn *sōl šal sāl* 'pointed stick' / U *šali* 'stick': Skt *śalyā-* 'point of a spear' OIcel *hali* (WP i, 431).³ There seems thus nothing against the postulation of a stage *ā*, intermediate between IndE *ě* and Ar *ǎ*, though I have not been able to find a clear control for it.

(2) IndE *ō* > Ar *ǎ*: -a in Group 100 (F *sata*). From what has been said above (pp. 74-5), it is clear that discussion on this point is not profitable.

(3) IndE *m* > Ar *ǎ*: a in Group 100 (F *sata*); on the representation of final -*m* in Groups 10a (F *-deksan*), 7b (F *seitsemän*) see pp. 74, 78. There appears to be no safe control here. (On the difficult question of the representation of IndE *r* in the Finno-Ugrian loan-words see Jacobsohn pp. 184 ff.; *SUST* lxvii, 142 ff.)

(4) IndE *t*: t in Group 100 (F *sata*); [F *kota* ∞ gen. sing. *kodan* / Lp: N *gōvōtī* ∞ gen. sing. *gōvōdī* S *kōestē* ∞ gen. sing. *kōētē* 'hut' / H *ház* / Kh *χòt k'át* 'house' / K *ker-ka*, -*ku* 'house, room' / U *kya* / Ma *kuḍo kuḍā* 'hut' / Md *kud kudo* 'house, etc.'⁴: Av *kata-* 'room' Goth *heþjo* OBulg *kotъcb* 'nest' (WP i, 383-4)⁵ affords good control.

(5) IndE *d*: d in Group 10a (F *-deksan*), 10f (KU *das*). Control is not to be expected for the representation in Group 10a (F *-deksan*) by reason of the haplology. For the representation in Group 10f (KU *das*), cf. K *dar* / U *durī* 'ladle': Skt *darvi-* 'ladle' (cf. Skt *dāru-* 'wood' Gk *δόρυ* MnE *tree* ⁶).⁷

(6) IndE *pt*: in Groups 7aa (H *hét*) and 7ab (Mn *sat*)—no control available.

¹ Szinnyei p. 45.

² E. N. Setälä, *FUF* viii, 77-80.

³ Jacobsohn p. 128.

⁴ Szinnyei p. 36.

⁵ Jacobsohn p. 225.

⁶ WP i, 804 ff.

⁷ Jacobsohn p. 209.

(7) IndE *s* > Iran *h*: in Groups 7aa (H *hét*) and 7ab (Mn *sat*). Jacobsohn pp. 177 ff. discusses cases where Finno-Ugrian has *s*, not *h* from Iranian; some of these would imply a PrFU *ś* (or *š*—see p. 72). Thus H *sör ser* / KU *sur* / Mn *sor* / Kh *sar* ‘beer’: Skt *śūrā*- ‘spirituous liquor’ Av *hurā* ‘koumiss’ (WP ii, 468) certainly implies an *s*-like, not an *h*-like, representation. I have not found a control for the representation postulated by me for Group 7aa (H *hét*). For the representation of Iran *h* by an *h*-phoneme we have H *hid*: Oss: Digor *xed* Iron *xīd* ‘bridge’ Av *haētū*- ‘dyke’ Skt *sētū*- ‘bridge’ (Sköld pp. 23-4).¹

(8) *š*: in Group 7b (F *seitsemän*)—no control available.

(9) IndE *k̂* > *c̄* > *š* > *s*:—

(i) Initial in Group 100 (F *sata*). Y. H. Toivonen has discussed the parallels to this, *SUST* lxxvii, 377-84; he gives, with Mn *š* ∞ *s* (i.e. implying a PrFU *š*—see p. 72) H *szarv szaru* / KU *śur* / Ma *šur* / Md *šuro śurā* / Lp *čoarve* / F *sarvi* ‘horn’: Av *srū*- ‘horn’; Mn: KU *šōrp* P, VN, VS, LU, LM *šōrp* KO *šōrp* ∞ KM *sōrp* LO *sōrp* So *sōrpi* ‘male elk’: Lat *ceruus* OPruss *sirwis* ‘roe’ (WP i, 403-8); see also Jacobsohn, Part II.

(ii) Medial in Group 10a (F *-deksan*). As Jacobsohn (*SUST* lxxvii, 145-7) points out, there is no control here.

(10) IndE *k̂t*: in Group 7b (F *seitsemän*)?—no control available.

(11) IndE *k̂st*—see pp. 68-9.

These few brief notes will, I hope, have shown that the controls available do not, at the least, conflict with the hypotheses as to lautersatz put forward above.

We have now, I think, a reasonably satisfactory picture of the whole. As I have suggested in *NFU*, the speakers of Primitive Finno-Ugrian counted only up to six. Then they

¹ WP ii. 464.

came into contact with the decimal system of Indoeuropean. They took over the word for '7' (in an analogized form) intact, and this has survived in all the Finno-Ugrian branches save Ugrian. In Ugrian this original word for '7' was replaced by a re-borrowing of the Indoeuropean word and this moreover at two different stages—before and after the operation of the Ugrian *s*-changes. It is probable too that at this same early period the speakers of Primitive Finno-Ugrian also took over the Indoeuropean word for '10' and we may imagine that, at a slightly later period, diverse words for '10', doubtless of a suppletive character (like Group *10c*—Lp *loge*—see p. 86) also came into being. From the Indoeuropean loan for '10' and from these suppletives, words for '8' and '9' were formed by subtraction. One such expression for '8' and '9' was present in Primitive Finno-Ugrian itself—Groups *8a* (F *kahdeksan*) and *9a* (F *yhdeksän*); some of the others perhaps came into being later, during the development of the individual languages (cf. pp. 86–7). The subtractives built up on the Indoeuropean word for '10', Groups *8a* (F *kahdeksan*) and *9a* (F *yhdeksän*) survived, save in Ugrian and Permian. But the word for '10' itself was everywhere replaced by suppletives and, in Ugrian and Permian, the original subtractives for '8' and '9' were replaced by other subtractives formed on the suppletives. At a later date there was a specifically Permian borrowing of the Iranian word for '10'—Group *10f* (KU *das*). At a period certainly later than that at which they borrowed the Indoeuropean word for '10', and possibly later than that at which Groups *8a* (F *kahdeksan*) and *9a* (F *yhdeksän*) were formed, the speakers of Primitive Finno-Ugrian borrowed the Indoeuropean word for '100'—and this has survived in all the branches of Finno-Ugrian (Group *100* (F *sata*)).

The scheme put forward here is in good agreement with the Indoeuropean aspect of the matter. Groups *7b* (F *seitsemän*) and *10a* (F *-deksan*) represent the earliest period—a period at which IndE *ē* was still intact and at which the series IndE

$\hat{k} > \bar{c} > \acute{s} > s$ was at its second stage (\bar{c} in Group 10a (F *-deksan*), $\bar{c}t$ in Group 7b (F *seitsemän*)); IndE η may also have been intact, but we can neither prove nor disprove this (pp. 74, 78). At the next period of borrowing—to which Group 100 (F *sata*) belongs, the third stage of the palatal series, \acute{s} , is attested and IndE η has certainly become *a*. At the next period—that at which the Ugrian borrowings of ‘7’ took place—IndE \acute{e} is at the stage \bar{a} , on its way to \bar{a} . Finally the Permian borrowing of ‘10’ is a much later borrowing, from the Iranian of South Russia.¹

¹ The naming of the various stages of Indoeuropean involved is perhaps not a matter of any great importance; it might be suggested that Groups 7b (F *seitsemän*) and 10a (F *-deksan*) represent “parent *satəm*-Indoeuropean”; the remainder (save Group 10f (KU *das*)), “early Primitive Aryan.”

THE NEGATIVE AND INTENSIVE PREFIXES IN
IRISH AND THE ORIGIN OF MODERN IRISH *AN*
'VERY; GREAT'*

By MYLES DILLON

In Celtic, as in other Indo-European languages, the notions of negation and intensity can be expressed with nouns and adjectives by means of composition, a negative or intensive prefix being added to the simple word. The negative prefixes so used in Celtic dialects are I-E. **n̥*-, **eks*-, **dē*-, and in Irish further the forms *neb*- and *mí*- (Pedersen, VKG ii 6).

I-E. **n̥*- appears in Irish in various forms according to the sound which originally followed it. Before vowels and *u*, *m* the result is *an*-, a following *u* appearing as spirant *b*: *gpl. ban* 'of women' < **g^un̥-ōm*; *ainb* 'ignorant' < **n̥-uid*; *ainm* 'name' < **n̥-men*. Before original *p*, the result is *am*-, the *p* disappearing in all dialects of Celtic: *amulach* 'beardless' < **n̥-pulako*- (Skr. *pulakas* 'bristling hair'). Before *c*, *t* the result is *é*- with 'nasalization' (voicing) of the consonant: *éc* 'death' < **n̥ku*- (Gr. *vékus*); *dét* 'tooth' < **dnt*- (Lat. *dens*, Goth. *tunpus*). Before *b* the result is *im*-: *imb* 'butter' < **n̥-g^uen* (Lat. *unguen*). Before *d*, *g* the result is *in*-: *indliged* 'injustice' (*dliged* 'justice, law'); *ingnath* 'wonderful' < **n̥-g'nōto*- (Gr. *ἄγνωτος*).

Pedersen has shown that in the case of the negative prefix **n̥*- analogy has led to the spreading of the ante-vocalic form *an*-, and that the form *am*- has also spread to forms in which there was no original *p*. In both Irish and Welsh *am*- (W. *af*-) has become generalized before *l*, *n*, *r*: *amlabar* 'dumb' (W. *aflafar*); *amnert* 'weakness', W. *afnaws* 'shameless'; *amréid* 'rough' (W. *afrwydd*). And Ir. *amchain*, *amchíall* (beside *écióall*, *ancéllide*), *amdar*, *amdéon* (beside *aindéon*),

* This paper was read at a meeting of the Linguistic Institute held in Madison, Wisconsin, in August, 1944, and has benefited by comments from some of those who heard it.

amdess (beside *andess*), *amfesach* (beside *anfiss*, *ainbhfios*), *amgand*, *amgar*, *amglan*, *amgliccus*, *amshén*, *amthend* (beside *étendigidir*) show the further spreading of this form of the prefix (VKG ii 7).

The ante-vocalic form *an-* spread even more widely, and tended to oust the various ante-consonantal forms in which the prefix lost its identity. A following initial consonant then suffered nasalization or lenition. Pedersen says that the initial remained or suffered lenition, but, since lenition is irregularly marked in the MSS., and nasalization of *c t* cannot be written in Old Irish, it is probable that this analogical *an-* always caused lenition where possible unless it caused nasalization. The same treatment appears after *com-*: *cutrummae* 'equal amount' beside later *comthrom* (VKG i 475). There is evidence which suggests that nasalization was regular in the early period, and lenition later, *v. inf. ancretem*, *ancél* (*aingcél*) beside later *anchretem*.¹ We have then a long list of words containing the negative prefix *an-*, and it is important to distinguish among them those in which the prefix has a pejorative force, not merely the force of a negative. In Meyer's *Contributions* this was not done, so that many words seem to me to be wrongly defined, and Meyer was led to suppose a purely intensive prefix *an-* 'great, very' which is a ghost.

I venture, therefore, to arrange the words in two sections, based upon this distinction. In the first section (A) the prefix has purely negative force, and the meanings will be found in Meyer. Words such as *anbal* 'shameless' (*fíal*), *anfad* 'storm' (*féith*), where the negative force is not apparent, are included here. In the second (B) I have supplied the simple words and the meanings, so as to make the distinction clear.²

A

ainb, *anabbuig*, *anaccarthach*, *anacmaing*, *anacnata*, *anáeb*, *anaichne*, *anaichnid*, *anaicneta*, *anairchend*, *anairches*, *anairdálta*, *anairdairc*, *anairlam*, *anairlatu*, *anait*, *anáithes* 'sorrow', *anannac*, *anarma*, *anarmach*, *anarrachta* 'feeble', *anarsaid*,

anbal, *anbann* (*anfann*), *anbecht*, *anbil*, *anblathach* 'un-princely' (ZCP 11, 87. 105), *anble*, *ansaid*, *anbthech*, *anbúain*, *ancéllide* (beside *amchíall*, *écióall*), *ancretem* (Wb. beside *anchretem*, PH), *andarbas*, *andath*, *andé*, *andéon* (beside *amdéon*) *andess* (beside *amdess*), *andíchracht*, *andil*, *andíles*, *andíruit*, *andlecht*, *andliged* (beside *indliged*), *andóit*, *andomuin* (beside Mod. Ir. *éadoimhin*), *anduine*, *andúthchas*, *andúth-chasach*, *anecnaid*, *anecne*, *anécoisc*, *anéim*, *anennac*, *anéoil*, *anergnaid*, *anéscaid*, *anetargnaid*, *anfad*, *anbfaitech*, *anfáilid*, *anfchellach* (*ainbhchellach*), *anfechnach*, *anféle* (cf. *anble*), *anféth* (cf. *anfad*), *anfial* (cf. *anbal*), *anfíne* (*ainbfíne*), *anfír*, *anfírenach*, *anfíss* (*ainbhfhios*), *anfíth* (*anfhláith*, cf. *anblathach*), *anfobracht* (*anbobracht*, *anfábracht*), *anfocell*, *anfóill* (*anbfoill*, *anfoil*), *anfoillside*, *anfola*, *anfholáin*, *anfollus*, *anforbthe*, *anforchendach*, *anforcthe*, *anforus*, *anfos* 'unrest' (ZCP 3, 31. 2), *anfót* (*anbfót*), *angaisced*, *angar* (beside *ingor*), *anglan* (beside *amglan*), *angnás*, *anguss*, *anidan*, *animchubaid*, *animmarcide*, *anindastae*, *aninne*, *anmebair*, *anmence*, *anmenic*, *anmesarda*, *anmesc*, *anmessair*, *anmín* (*ainmhín*), *annsa*, *anóg*, *anord*, *anordaigne*, *anrecht* 'illegality', *anrehtaid*, *anshádal*, *ansaíre*, *anseirc*, *anshescair*, *ansicc*, *anshocair*, *anshódh*, *anshúaire*, *antoiscthech*, *antrend*, *anuasal*, *anullam*, *anumal*, *anurmaisnech*, *anurraim*.

B

ád 'luck': *aná*d 'ill luck'; *álaig* 'skill': *análaig* 'vice'; *sén* 'luck': *anshén* 'ill luck'; *tráth* 'time': *antráth* 'inopportune time, untimely event'; *úain* 'time': *anúain* 'untimely'; *úair* 'time': *anúair* 'evil hour'; *acra* 'suit': *anacra* 'unjust suit'; *arrachta* 'mighty': *anarrachta* 'monstrous'; *bás* 'death': *anbás* 'untimely death'; *bert* 'deed': *anbert* 'evil deed'; *bés* 'custom': *anbés* 'evil custom'; *blod* 'fame': *anblod* 'shame'; *breth* 'judgement': *anbreth* 'unjust judgement'; *caint* 'talk': *an-chaint* 'speaking ill, defamation'³; *cél* 'omen': *ancél* (*aingcél*) 'evil omen'; *cíndiud* 'decision': *ancíndiud*

'wrong decision'; *críde* 'heart': *ancríde* (*anchríde*) 'injustice'; *éce*n 'force': *anicen* 'outrage'; *íarmairt* 'consequence': *aníarmairt* 'evil consequence'; *íarsma* 'consequence': *aníarsma* 'evil consequence'; *mían* 'desire': *anmían* (*ainmhian*) 'evil desire, passion'; *óráit* 'prayer' *anóráit* 'curse'; *recht* 'condition': *anrecht* 'evil plight'; *riád* 'course': *anriád* 'evil course'; *seól* 'course': *anshéol* 'evil course'; *smacht* 'penalty, control': *ansmacht* 'injustice'; *teist* 'witness': *anteist* 'false witness'; *tol* 'will': *antol* 'evil desire'.

The words listed under B might be subdivided into the first six in which the simplex has a connotation of goodness or advantage, so that the negative has the pejorative connotation immediately (the type 'luck: ill luck'; 'time: untimely'), and the remainder in which the negative has the pejorative connotation by extension (the type 'deed: evil deed'; 'desire: evil desire'). To the former may be compared OE *ræd* 'wisdom, counsel': *unræd* 'folly, crime'; *unfíma* 'mishap': to the latter W. *anair* 'ill report, calumny'; G. *Untiefe* 'abyss'; *Untier* 'monster'; *Unart* 'bad conduct'; *Unwetter* 'bad weather'.

There is a third group of words which contain this prefix in its pejorative sense, where the meaning of the simple word itself is bad, so that the pejorative prefix has intensive force:

C

<i>brath</i> 'treachery'	<i>anbrath</i> 'treachery'
<i>broid</i> 'oppression'	<i>anbhroid</i> 'oppression'
<i>cess</i> 'sickness, trouble'	<i>ancess</i> (<i>aingcess</i>) 'sickness, trouble'
<i>écht</i> 'slaying, violent deed'	<i>anécht</i> 'slaying'
<i>ferg</i> 'anger'	<i>anfergach</i> 'angry'
<i>fiach</i> 'debt'	<i>ainfhiach</i> 'debt'
<i>forlann</i> 'oppression'	<i>anborlann</i> (<i>Hessen</i>), <i>anforlann</i> , <i>anfhorlann</i> ⁴ 'oppression'

<i>forrán</i> 'attack' ⁵	<i>anbórrán, anfórrán</i> (Hessen), <i>anfhorrán</i> ⁴ 'attack'
<i>glond</i> 'violent deed'	<i>anglond</i> 'violent deed'
<i>lettrom</i> 'oppression'	<i>anlettrom</i> 'oppression'
<i>macnas</i> 'wantonness'	<i>anmhacnas</i> 'wantonness' ⁴
<i>úabar</i> 'pride'	<i>anúabar</i> 'arrogance'
<i>úaill</i> 'pride'	<i>anúaill</i> 'vainglory'.

Translators usually render the prefix here by 'excessive, great', and there is no objection to this, except that it implies a confusion with the Modern Irish intensive particle *an*, which does not appear in the literary language. In many cases the prefix is used merely as a stylistic device for alliteration, and is then better neglected in translation. The words *ancess* (LU), *anforlann* (LL), *anglond* (LU), *anúabar* (YBL 205 b 23) are attested in Middle Irish, so that this type is as old as the twelfth century.

A further step was taken by the use of the prefix where the meaning of the simple word was not bad, to give the sense 'excessive', and so 'bad through excess'.

D

<i>barr</i> 'addition'	<i>anbharr</i> 'excess, undue amount' ⁶
<i>blasadh</i> 'to taste'	<i>anbhlasadh</i> 'excessive liking' ⁴
<i>caitheamh</i> 'to spend'	<i>anchaitheamh</i> 'waste' ⁴
<i>cúram</i> 'care'	<i>anchúram</i> 'excessive worldly care' ⁴
<i>dána</i> 'bold'	<i>andána</i> 'very bold' ⁷
<i>dóchas</i> 'hope'	<i>andóchas</i> 'presumption' ⁸
<i>siubhal</i> 'to walk'	<i>ainshiubhal</i> 'excessive peregrination' (O'Grady, Cat. 558, 15)
<i>tes</i> 'heat'	<i>ainntes</i> 'excessive heat' (O'Grady Cat. 232. 3)
<i>tlás</i> 'weakness, gentleness'	<i>antlás</i> 'frivolity' ⁴
<i>trom</i> 'heavy'	<i>antrom</i> 'excessive weight' ⁹

It is difficult to decide in some cases whether a word should be listed under B or D, but *anbhlasadh*, *andóchas*, *antlás*, *ainshiubhal*, *ainntes* clearly belong to D. In these examples the prefix has pejorative force, but in the special sense of excess, the germ of which appears in C. The meaning is not merely 'great taste', 'great hope', etc., but taste or hope that are evil through excess.¹⁰ And none of the examples listed under D is earlier than the sixteenth century, so that this stage in the development can be assigned to the later Modern Irish period.

In the spoken language to-day there is an intensive particle *an* (Munster *ana*) used with both adjectives and nouns in the sense 'very', 'great'. O'Donovan recognizes it (Gr. 121), but observes that it seldom occurs in correct Irish works (*ib.* 271). There is indeed no example in Keating's *Three Shafts of Death*, where various other intensives appear. In the dialects it tends to oust all the other intensives, except a Connacht form *rí* which derives from *righ-* 'royal, splendid' and has become a mere intensive (Finck, *Die Araner Mundart* ii 16). But this Modern Irish particle *an* differs from the prefix *an-* in two respects. It does not form close composition, for the following word retains its accent. Thus Canon O'Leary writes it as a separate word: *ordóg ana theinn* 'a very sore thumb'; *ana ghníomh* 'a great deed', *Foclóir do Shéadna*, s.v. *ana*. And it has no pejorative force, but is a mere intensive.¹¹

Pedersen identified Modern Irish intensive *an* with the Old Irish *and-* of *andfocul*, *andlocht*, *andglondas*, which became obsolete in the early period. And in this he is mistaken, if my explanation of the words listed under D above is correct. He would explain all of these, and also those listed under C, as compounded with *and-* (G. *ande-*). This is probably also what Meyer had in mind.

Apart from the etymology, I think that Pedersen has indicated the true explanation of the emergence of the new particle (VKG ii 13). Terms of equality in Irish are expressed in Irish by the prefix *com-* which occurs with both nouns and

adjectives, and causes nasalization in old forms and lenition later: *cummat* 'equal amount', *cutrummae* 'equally heavy, alike', *comthínól* (Wb. 21c7), *comthrumma* 'equal weight' (SR 5760), *comhthrom* 'equal weight; equally heavy, equitable', *comthínd* 'equally painful'. *cotomus* 'equal measure' is glossed *comthomus*, Cóiic Con. Fug. 19. 26. Here a secondary division into two words has taken place in Modern Irish, but only in the adjectives. Thus *comhfhad* 'equal length' in a proverb I have heard in Inishmaan: *ní hionann comhfhad dona méarai ná na tréithre do chuile dhuine* 'the fingers are not of equal length nor are the characters of men alike'. But *chomh fada (le)* 'as long (as)'.¹² It is plain that the relation between *anchúram*, *ainnteas* and *an chúramach*, *an te* is the same. Pedersen labels the process *Biverbierung*. It is perhaps due to the fact that the adjective, by retaining its separate accent, escapes the reduction to which non-initial syllables are subject in Irish. The time of its occurrence has not been established, and the development is not parallel in the two forms. While *com-* (*comh-*) causes lenition in composition, e.g. *comhthrom* which survives in the senses 'fair, even', there is no lenition in the bisected form *chomh trom (le)* 'as heavy as'¹³; and, further, the bisection after *com-* is limited to adjectives. In the case of *an* lenition remains, and bisection occurs with both adjectives and nouns. The process evidently begins with compounds of *com-*. Since the absence of lenition is a characteristic of the bisected forms in the spoken language, it is reasonable to suppose that forms without lenition in classical Modern Irish texts are already bisected. In Bergin's edition of Keating's *Three Shafts of Death* there are a number of examples: *muna mbeith go raibhe an drong adubhart chomh follus soin ciontach* 'unless those I have mentioned were so plainly guilty', 5453; *go bhfuil an bás chomh doghraingeach soin nach foldair dhúinn bheith innill aireach 'na oirchill* 'that death is so perilous that we must be carefully prepared for its coming', 1186; *ata sí comh doileighis sin* 'it is so hard to heal', 2466; *an tan do bhí a inntinn coimh*¹⁴ *díreach sin* 'when

his mind was so just', 2988. Further references will be found in the vocabulary s.v. *comh-*. In every case the editor has introduced a hyphen and printed the forms as compounds: *chomh-dograingeach*, *comh-doileighis*, etc., but I suggest that the absence of lenition of the initial in the second element points to bisection of these forms in Keating's time. It is noteworthy, however, that Conry a contemporary of Keating, appears to use only the old compound forms. We have a printed edition of Conry's *Desiderius* published in his own lifetime (1616). The original edition is a very rare book and not accessible to me, but O'Rahilly discusses the point in his admirable edition (1941), p. 251, distinguishing three types of construction with *comh-*, and it appears that for Keating's *chomh doileighis soin* Conry would write *comhdhoileighis 7 sin* (type 3), a quite different construction. But it is right to point out that O'Rahilly admits having joined words that are split into two in the original, when the splitting was 'obviously a printer's error' (Introduction xiv), so that not all examples of his types 1 and 2 are clear evidence: (1) *éinní coimbeag ris*; *comhdhaingean ré hiaronn*; (2) *comhmaith 7 as éidir lat*; *comholc 7 thuillim*. Conry never lenites the initial of *comh-* except in the nominal construction with a possessive mentioned in note 13: *a chomhmór sin do dhuine uasal* 'so great a gentleman as he'. For *an* the case is different, for there is no example in Keating nor in Conry of *an* as a mere intensive. We have seen that *an-bhlasadh* 'excessive liking', *an-chúram* 'excessive anxiety', *an-dóchas* 'presumption' represent the pejorative *an-*. The earliest references to intensive *an* that I can cite are that of Halliday in his *Grammar of the Gaelic Language* (1808) 59 (he uses *an* in the Dialogues, pp. 134, 138) and those in O'Donovan's *Grammar* 121, 271, where no examples from the literature are given. The earliest attested examples I have are those of Finck and O'Leary.

Finally it may be observed that the old negative and pejorative *an-* has ceased to be a living formative in the spoken language. The presence of alternative prefixes expressing

these two notions may have prompted the restriction of *an* to the use as an affirmative intensive. The common negative prefix is *neamh-*, O. Ir. *neb-* (Pedersen VKG ii 8; RIA Contrib N-O-P 28. 4; Dinneen s.v. *neamh-*). The pejorative prefixes that have survived are *droch-* and *mí-*, both also well established in Old Irish (Pedersen, VKG ii 113; Dinneen, s.v. *droch-*; Pedersen, *ib.* ii 10; RIA Contrib. M 120 64; Dinneen, s.v. *mí-*). This makes it difficult to decide what is intended by such spellings as *ainfios*, *anfolláin*, *anforlann*, *ansáire*, *ansicc* in the MSS. Should an editor be guided by the spellings *ainbhfios*, *anborlann*, *aingcél* attested elsewhere, or by the lenition in *anchretem*, *ainmhín*, *anshódh*? Bergin seems to have been in doubt as to how the manuscripts of Keating should be read, for he prints *ainmhian* throughout the text of TSh., but adds a note that the two best manuscripts always have *ainmian*, 'the usual form in the early seventeenth century' (p. 494). He would probably now adopt *ainmian* throughout. This suggests that *f*, *m* escaped lenition until the seventeenth century, since the forms were not analogical, *an-* being original before *u*, *m*.¹⁵ But *b*, *c*, *s* were probably lenited from the Middle Irish period. The spelling *ainfios* is then etymological rather than a re-formation **ain-fhios*. But Finck records both *ænæs* and *ænvæs* (*Die Araner Mundart* ii 25). Bergin prints *anfhlait* (*anflait*, vocab.), *anfhochain*, *anfolláin*, *anfhorrán* in his edition of TSh. In most cases the spoken language supplies no evidence.

The Munster form of the new particle is *ana*, and may perhaps be explained in the same way as *seana-* for prefixed *sean-* (s. O'Rahilly, *Irish Dialects* 200). If we assume that the additional vowel developed in Munster before the forms were bisected, the conditions will have been the same.

This transformation of a negative prefix into an affirmative intensive particle, to which the converse development of Fr. *personne*, *rien* may be compared, well illustrates one aspect of the complex character of the Irish language to which Pedersen has drawn attention (VKG i 26), a blend of archaism

and revolutionary innovation. But parts of the development can be observed elsewhere. The semantic change from 'excessive' to 'very' has parallels in English 'awfully good', 'frightfully sorry'. One German word, *Unmenge* 'great quantity', which is ordinarily pronounced with equal stress, shows exactly the same history for Germanic *un-*, even to the final bisection of the compound, but it is, so far as I know, a unique example.

2

There is a Gaulish prefix *ande-* already mentioned (p. 99), which Holder defines as expressing motion to and from, intensity and increase: he identifies it with Skr. *ádhi* < I-E *ǵdhi* (*Altkeltischer Sprachschatz* 139. 17). The proper name *Anderoudus* (CIL V 2911) is rendered 'sehr rot' (*ib.* 145. 52). The prefix appears in Irish in the form *and-*, and may be identified in the words: *andfocul* 'habitual saying'; *andglondas* 'habitual cruelty' (AL ii 168. 5 = O'Dav. 135); *andlocht* 'habitual fault' (?) (Laud 615, 121, cited by Meyer, *Contrib.*); *andlonn* 'condiment'; *Andobor* 'the river Anner'; *an[d]ainmne* 'perseverance' (LB 261b26).

Pedersen agrees with Holder about the etymology and intensive force of this prefix (*op. cit.* i 45; ii 10). He therefore states the regular Welsh form as *an-*, which he identifies in W. *anrheg* 'gift'; *enwyn* 'pure white'; *enwir* 'trustworthy'; *enfawr* 'huge'; *enryfed* (*enrhyfedd*) 'wonderful', *enawel* 'tempest'. To these examples may be added, subject to what is said below (p. 104): *enwaered* 'prone'; *enwaisg* 'lively'; *enbyd* 'dangerous'; *enchardd* 'laughter'; *enddawd* 'conspicuous'; *anddwl* 'affection'; *enfyged* 'worship'; *enrhydedd* 'honour'; *enwair* 'vigorous'; *annerch* 'greeting'; *anrhaith* 'booty'; *anfon* 'to send'.¹⁶ It may be said that Pedersen's rendering of *enfawr*, *enwir*, *enwyn* as 'sehr gross', 'sehr wahr', 'sehr weiss' seems to derive from Owen Pughe, and suggests a connection with the Mod. Irish particle *an*, which we have seen to be of quite different origin,

but which Pedersen identified with *and-* and so with the Welsh prefix. Pedersen was misled by the resemblance of form and meaning, and forced to the conclusion that Ir. *and-* was a Welsh borrowing, since **ǵdhi* should appear in Irish as *ind*. In fact the sense of 'very' is normally expressed in Welsh by the prefixes *rhy-* and *tra-* (Morris Jones, *Welsh Grammar* 268). It is better to allow **ande* as the common Celtic form, as Thurneysen does (Hdb. 473). The meaning may be intensive-durative. A connection with Gothic *anda-* is possible.

In Gaulish *ande-* appears only in proper names, but some of these appear to be adjectives: *Andebrogius*, *Andecombogius*, *Anderoudus* (Holder, *op. cit.* 139. 17). In Welsh all the adjectives cited above show the prefix in the form *en-*, which can of course be generalization of an umlaut-form. But it may be that we have here a distinct prefix, and that **ande-* was prefixed only to nouns. This was the case in Irish so far as I can see. Meyer, who like Pedersen confounded Irish *and-* < **ande* with the pejorative *an-* and the Modern Irish intensive particle *an* 'very', 'great', which have here been shown to derive from the old negative **ǵ-*, defines *anbrath* 'great treachery', *anbhroid* 'great captivity', and so on; and he gives two examples of *an-* with adjectives which, if correct, would require the sense 'very', and, coming from the early literature, could only be explained by means of an old intensive *an-* (= **ann-*, **and-*), but both examples are errors. The first is *an-áith* 'very sharp, keen'. *amus anaith oirbirech* 'a . . . reproachful servant', LL 149a30, but Rawl. reads *inail* for *anaith* (Hib. Min. 83. 9) and the meaning is doubtful.¹⁷ Meyer cites here also: *am so 7 am andithiu atáesiu* 'ich bin junger und ich bin kühner (?) als du bist', LU 1573 (IT II ii 213. 18). But the prefix is not admissible before a comparative form. The word *andith* is obscure, but it is clearly not a compound of **an-* 'very' and *áith* 'keen'. The form *anathu* in *grannu anathu Herend*, LL 34a38 is a scribal error. Rawl. has the intelligible reading: *éitchi indát*

fúatha Hérenn 'more hideous than all the goblins of Erin', *Ériu* 4, 100. 35.

The other supposed early example is due to a wrong emendation: *an-féig* 'very keen', Fen. 214. 12. But the text actually reads *annfein*: *bennaigim in baili réid | bennaigim gach ni annfein* 'I bless the smooth place, I bless everything therein', *Book of Fenagh* 214. 12, and Macalister confirms the reading, correcting only to *bennuigim* in the second line (*Supplement* 44). Two other words in the *Contributions* might be claimed as examples of adjectives containing the prefix *and-* as intensive: *andíaraid* 'fierce', *angbaid* 'fierce', but both are of obscure origin, and the meaning suits pejorative *an-* which has been admitted above (list B) for Middle Irish. The word *anmoltach* 'praiseworthy', which Meyer may have understood to contain *an-* 'very', is doubtful, since Laud reads *ánmolbthaig* (IT iii 50.12 = 31. 12).

3

Celtic *ande-* plays only a small part in nominal composition in Irish, and was apparently not used in adjective forms. The intensive prefixes used with adjectives in early (Old or Middle) Irish are: *ad-*, *adb-*, *air-* (*aur-*, *er-* *ir-*, *ur-*), *aith-*, *der-*, *ér-*, *for-*, *ro-*; and *for-*, *ro-* are attested also with nouns (*forlassair* 'great flame'; *romacdacht* gl. *superadulta*), s. Pedersen, VKG ii 10; Meyer, *Contrib.* s.vv. *air-*, *aith-*. To these must be added for Modern Irish: *fíor-*, *sár-*, *úr-*, and the separate particle *an*, s. O'Donovan, Gr. 121. But the particle is not attested in the literature (cf. O'Donovan, *ib.* 271).

One point concerning the bisection after *comh-* (*a chomh-*) which calls for attention is the absence of lenition. The statement of Stewart, cited by Pedersen KZ 35, 443, that the separated *comh* causes lenition in Scottish Gaelic, is not confirmed by Calder, *Gaelic Gr.* 115 or Borgström, *Dialects of the Outer Hebrides* 99, so that we may assume that the absence of lenition is universal. It is, I suppose, a generaliza-

tion from cases where lenition was regularly absent (before vowels and *m*): *chomh maith* 'as good', *chomh mór* 'as great' may have given the lead, for they would be of frequent occurrence, and *an mhaith*, *an mhór* may have helped to establish the contrary treatment of initials after separated *an*.

NOTES

¹ Pedersen discussed the matter, KZ 35, 442, and cited *ancretim*, Wb. 5b12 and four other examples from Wb. as well as four from Ml. in which lenition of *c* is unmarked after this analogical *an-*. But he shows that lenition after *com-* appears already in Wb., and it appears after *an-* in PH. I am inclined to regard the examples without lenition as instances of nasalization, which cannot be marked for *c*, *t* in Old Irish. The word *ancél* is sometimes written *aingcél*, *angcél*, so also *ancess* and *aingcess* (Meyer, *Contrib.*), and the spelling *ancessa*, CCF 16. 12 indicates nasalization.

² The words in the lists which follow are given as they are spelt by Meyer or in edited texts, early and late. Allowance must be made for the fact that lenition is often supplied by editors, so that some doubtful points discussed later (p. 102) would need to be investigated in the light of the MS. tradition. The evidence of Wb. and Ml. is available in Pedersen's great study cited in note 1.

³ O'Rahilly, *Desiderius*, vocab.

⁴ Bergin, Keating's *Three Shafts of Death*, vocab.

⁵ Metr. Dinds., gl.

⁶ O'Rahilly, *Desiderius*, vocab.

⁷ I depend upon Meyer's example, FM vi 2298. 3, where the meaning is not pejorative, but Lhuyd has *andana* 'arrogant, presumptuous', *Archaeologia Britannica* 316c20.

⁸ Bergin, *loc. cit.* Contrast Mod. Ir. *éadóchas* 'despair'. Some words in original initial *d* have developed a negative *é-* by analogy with *éadtrom* (*trom*), etc.; cf. *éadoimhin* 'shallow' (*doimhin*) above.

⁹ Bergin, *Stories from Keating's History*, vocab.

¹⁰ The word *ainiongnadh* in *Desiderius*, which O'Rahilly leaves undefined in the vocabulary, becomes clear. It means 'excessive admiration', and so *Ainiongantus Indte Féin* 'Conceit', 'Vainglory', 2792.

¹¹ It may be observed that the example cited by Pedersen, VKG ii 10, from his collections made from informants in Aran, and characterized as 'merkwürdig', is an error: *go bhfuil tú an duine tinn* 'that you are a very sick man' is impossible. The informant must have said: *an dona tinn* 'very badly sick'.

¹² The old compound survives in the simple sense 'equality': *tá siad comh-bharamhail* 'they are one as amusing as the other' (Inishmaan, my own collections).

¹³ The lenition of the initial in *chomh* is another matter. It derives from the type *a chomh-olc sin* 'as bad as that', Pedersen, KZ 35, 443. There is a new

meaning in the bisected form, for it may be followed by a resultative clause: *chomh trom (go)* 'so heavy (that)'. Irish *chomh* is then equivalent to Latin *tam*.

¹⁴ *Coimh* for *chomh* may be the editor's spelling. No MSS. readings are supplied.

¹⁵ O'Rahilly gives examples of *ainmian* and *ainmhian*, *Desiderius*, vocab. s.v. *ainmhian*.

¹⁶ s. Morris Jones, *Welsh Grammar* 269, who postulates an original **ndo-* (Lat. *endo-*). There may be in Welsh a blend of prefixes **ande-* and **eni-* before nouns, as in Irish before verbs, s. Thurneysen, *Handbuch* 472-3. The prefix **ande-* seems to be foreign to adjectives in Irish as in Welsh, s. p. 104.

¹⁷ H. 3. 18 agrees with LL, s. Meyer, *Contrib.* s.v. *airbirech*. There is a noun *anáithes* attested only in the phrase *áithes co n-anáithes* 'joy mingled with sorrow' or perhaps 'success mixed with failure' (Meyer, *Contrib.* s.v. *anáithes*). The adjective *anáith* may mean 'unsuccessful, unhappy'. We should then have an etymology for Mod. Ir. *áthas* 'joy' < O. Ir. **áithius* 'success' (?), the abstract noun corresponding to *áith* 'keen'.

BRÁHMAN

By W. B. HENNING

ORIGIN and meaning of this word have been discussed so often and so thoroughly that it may seem hardly possible to add anything new. Not long ago the late Jarl Charpentier devoted a whole book to it (*Brahman. Uppsala Universitets Årsskrift*, 1932), with its full survey of the various theories put forward by Indian and European scholars an indispensable guide to the student, even though he may find himself in disagreement with the solution favoured by Charpentier himself. However, it appears that perhaps insufficient attention has been paid to the Iranian side of the problem which may help in reaching a definite conclusion.

In a recently discovered Xerxes inscription ("Xerx. Pers. *daiv.*", 41 sqq.) there is a recurring phrase "to worship Ahuramazdā *artača brzmnīy*". To all appearances these words mean merely "to worship Ahuramazdā in proper style, in correct fashion", but opinions vary greatly on their grammatical analysis.¹ Most likely *brzmnīy* is the Nom. Sg. of an adjective (referring to the subject of the verb "to worship") in *-īya* from *brzmn-*, while *artača* = *artāčā* is either a second adjective OIr. (*a*)*rtaṅhačā* "following Rta" (thus Bailey),² or an adverb explaining *brzmnīy*, OIr. (*a*)*rtāt hačā* = Av. *ašāt hačā* "according to Rta". Thus one could translate either "following Rta and possessing (associated with) the *brzmn*", or "following the *brzmn* in accord with Rta". The translation I had given "holding Barəsmān (twigs) according to the Holy Law (Rta)" does not meet the case. The stressing of such a minor detail of the cult as

¹ See Herzfeld, *Archaeolog. Mitt.*, viii, 56 sqq., *Altpers. Inschr.*, 27-35, 116-18, 287-9; Kent, *Language*, 13 (1937); Hartmann, *OLZ.*, 1937, 146 sqq.; Nyberg, *Rel. Alt. Iran*, 367, 478; Bailey, *Zor. Problems*, 87, 229, and my remarks, *BSOS.*, x, 506.

² However; similar adjectives are formed with *-hak-* (not *-hačan-*) in Avestan where *ašāṅhak-* occurs.

the Barəsmān twigs were would appear to be incommensurate with the tenor of the inscription. *Brzmn-* must have a fairly wide and general meaning here; it has quite rightly been compared with the Indian *brāhman-*. Also, the spelling of *brzmnīy* in the Elamite and Akkadian versions, *pirracmannīya* and *birazammanni*, necessitates the reading *brazmaniya* (in preference to *barzmaniya*).¹

It has not been noticed so far that Old Persian *brazman-* survives in Middle Persian and Parthian *brahm*, Pahlavi *brahm(ak)*. There is no difficulty about the phonetic development. OIr. (*u*)*rvāzman-* (Gathic *urvāzəman-*, Av. *urvāsman-*) which appears as *urwāhm-* in Middle Iranian (MPers. *urwāhmāh*, Pahl. *urwāhmanāh*, etc.) provides a close parallel; one could also cite MPers. *ēmag* (Pers. *hīme*) from OIr. *aizma-* (Av. *aēsma-*). The frequent Pahlavi spelling *br'hm(k)* happily leaves no doubt that the Middle Iranian word was pronounced *brahm(ak)*, not *barhm(ak)*.

The Pahlavi word has been discussed by Salemann, *Man. Stud.*, 62 (cf. also *Man.*, iv, s.v.), and Zaehner, *BSOS.*, ix, 311. According to Zaehner it means (*a*) garment, (*b*) manner. However, it is used not so much for the actual clothes as for their appearance or style. Hence, one would prefer "dress" or "costume". Perhaps the best equivalent in English is "fashion" which covers both meanings.

It may be useful to treat the Manichæan passages in which *brahm* occurs, more fully.² As in Pahlavi the word refers to clothing: *Mir. Man.*, iii, a 73 (p. 851) "For a short while they gladly³ clothed themselves inwardly with the costume (*brahm*) of joy, but outwardly they were visible in armed and warlike appearance (*čihrag*)". M 177 V 17 (*HR.*, ii, 90) "And lo! angels brought the soul of Dārāw and placed him before me, arrayed in the customary dress of kings (*šhrd'r'n brhm 'bdyy'n*)".

¹ Cf. Herzfeld, *loc. cit.*

² Unimportant or incomplete passages are not quoted here.

³ *frh'* is adverb and belongs to *fryh*, cf. *frhyft*, *JRAS.*, 1942, 230, n. 5.

Here we must pause to consider Parthian *abdēn* ('bdyn or 'bdyyn) which hitherto has been translated as "wonderful" (by F. W. K. Mueller, Salemann, and myself), while in fact it means (a) custom, (b) customary, wonted. It is the same word as Armenian *aurēn-k'*, MPers. *ēvēn(ag)*,¹ and goes back to OIr. **abidainā*-. Cf. the following texts:—

(1) *Mir. Man.*, iii, d 65 (p. 864) *fr'mwxtyyš tnb'r pdmwcn 'bdyn* "he shed the wonted garment of the body (= he died)".

(2) *Ibid.*, n 6 (p. 886) *pd hnd 'bdyn* "through blind² habits".

(3) M 523a 5 ['c] ['lym 'bdyn whxt 'š[tyd] "he has freed himself of this habit".

(4) M 580 R 10 *cw'gwn kyc t'wg cy ny 'mwxtg u ny 'bdyn bwt kw cyš pt 'b'myh 'c kyc 'st'n'h* "like a rich man who was neither used nor wont to take anything on loan from anybody".

(5) T iii D iii 270 *bwd jyr 'wt frz[ng] nyw 'wt hwnr'w[nd] 'bdyn 'w'gw[n kw ?] b'dyst'n pd šb kd kyc ny z'nyd byh 'zgd* "he was clever and wise, brave and skilful. His custom was such that frequently he went out at nighttime, unbeknown

¹ *ēvēn* < *aiβēn* < *aδβēn* < *aβδēn*. Another case of the Middle Persian metathesis of *-βδ-* > *-δβ-* (> *-yv-*) is provided by the later form of the Old Persian word for "palace" whose stem is usually given as *apadāna*-. Parthian *'pdn* = *appadan* proves that the OPers. word was *appadan*-(acc. *appadānam*), and this is supported by the Biblical pointing *appeden* (*appadn*-), by Syriac *āpadnā*, Arab. *fadan*; needless to say, OPers. *apadāna*- could appear in Parthian only as *'bd'n*. In Middle Persian *appadan*- became **āpadan*-, then **āβdan*-. Through the metathesis of *-βδ-* **āβdan* became **āδβan* > *āiβan* > *āivan*; the last form occurs in Man. MPers. (spelt "ywn, *Mir. Man.*, i). The vowels were transposed in Persian *aivān* (if derived directly from the MPers. form as is likely). A belief that Pers. *aivān* somehow belonged to OPers. "*apadāna*" was expressed by Herzfeld, *Iran in the Ancient East*, 352.—Parth. "dywn (?) and Parth. "wdyn (*BSOS.*, ix, 79) are uncertain.

² *hand* = Ormuri *hōnd*, Saka *hana*, Av. *anda*-, Sogd. *and*, etc., cf. Morgenstierne, *Report . . . Afghanistan*, 33; *IIFL.*, i, 317. Parthian has many words which otherwise are met with only in Eastern Ir. dialects, cf. e.g. *šyr-g'mg*, *pnd'n* (Parachi *panān*), *frg'w*. See also Benveniste, *JA.*, 1936, i, 202 sqq. Consideration of the Parthian vocabulary supports my contention that that language was indeed Parthian and not Middle-Median (cf. *Mir. Man.*, ii, 303, n. 1; *BSOS.*, x, 501 sq., 508).

to everybody" (*b'dyst'n* = Man. MPers. *b'yst'n* = Pahl. *bāstān*, cf. Av. *bāidištām*).

(6) M 92, 7^{a-b} (from an *Evangelionīg Bāšāh*)

*ḵngyn bud u t'ryg, mgwng 'bdyn pd šhr teynd
pd 'wrjwg wdyft 'hynd, u krwgyft cy 'šmg'n.*

Dark they were and contentious, brutish in habits they
roam the world,

Deceived by lusts, and the trickery of the devils.

The word *mgwng* (*mgwng-'bdyn*, a *bahuvrīhi* compound) in the last quoted passage is perhaps too important to be passed over lightly. In view of its meaning which seems to approach that of "brutish" (or "imbecile" ? "drunken" ?), it can hardly belong to Av. *magavan*.¹ It has been noticed four times in Parthian and once in MPers. where a shorter form (*mgwn*) is employed:—

(1) M 92, 15^{a-b}

sy'ryft pdmwxt 'hynd, tnb'r gnd'g 'wd mgwng

[*p'dmwcn* (?) *pdngyn, cy b'd b'd pdmwxt 'hynd*

"Clothed in decay: the body, stinking and brutish,

'Tis a soiled garment that they put on again and again."

(2) T ii D 116, i, R ii *pd dybhr* [] '*wrjwg* [] *xwmr 'wd . . . 'stft gryw mst m' q[r]'h kw ny bw'h mgwng* "Do not intoxicate yourself with anger, . . . lust, . . . sleep, with harsh . . . , so that you will not become brutish".

(3) M 460b, 12 sqq. *mst 'yy 'wd mgwng pd frhy[ft] 'wd zyštyft, [ns]'wyn* (?) *pd š'dft^{stc} [']wd 'nd'g cy ['y]m šhr* "Thou art drunk and brutish in love and hatred, like a corpse in the joys and sorrows of this world".

(4) M 87, 14^a–15^a (from the *Gōwišn-ī Grīw-rōšan*).

'šm'hycwm dyym b' m' bnyd (??)²

¹ However, if one accepted as true the picture painted by Nyberg of the shamanistic Zoroastrians, one could fairly well describe the *Magavan* as an imbecile and brutish drunkard. See *Religionen des Alten Iran*, 147 sqq. Cf. *Journal of Theological Studies*, 1943, 119 sqq.

² As I hope to show in an article I am preparing on "Sogdian Tales",

t'w'nyd'n kw'm 'ndr 'w 'spynj 'dyn'[d]

trwm m' kw'nyd 'wd mgwn m' bwyd

But you should not throw dust into my eyes,

Surely you can admit me to this Inn,

Do not repel me, do not be so brutal.

Let us return to the consideration of *brahm*. In the first Manichæan passage quoted above (p. 109) *brahm* was associated with *čihrag* "appearance, form, figure, face; nature, seed".¹ Both words are often found in juxtaposition. Thus in a "Crucifixion Hymn", M 24 R 8 (= M 812 V), [*zw'ryd*] *hrw 'mwst'n 'w r's[tyft cy] mšyh'h o bwyd 'zd'g ['wd] 'šn'syd pd 'spwryft hw r'z o brhm u cyhrg 'zwšt* "Grasp, all believers, the Truth of Christ, learn and wholly understand His secret: He changed His form and appearance". The reference is to the assumption of human form by Christ, cf. also *Mir. Man.*, iii, k 4 (p. 881) *šhrd'r 'rg'w wxybyh pdmwcn 'zwšt*. In a hymn addressed to the Father of Light² we read (M 679, 27 sqq.): *'st'w'dg jywndg o wygr'dg 'wd 'nwšg 'yy o tw nyš'n gryw u p'dgyrb 'm'h pydr qyrbkr o hwr's'n hwcyhr o brhm 'wd cyhrg p'dgyrb 'wd z'wr o cy hw pydr ny'g hsyng o ngwstg u wyd'm'sg wzrg* "You are praised and living, wakeful and eternal. Your sign, your Self, your aspect is our beneficent Father, the beautiful East, (who is) the form (*brahm*) and appearance,

dēm bastan means "to juggle, trick", lit. "to bind someone's sight" so as to prevent him from seeing what is happening to him. But the reading *bnyd* is merely conjecture.

¹ The peculiar Parthian *h'mcyhrg*, *Mir. Man.*, iii, 849, n. 3, is "homomorphic" rather than "of the same substance". It refers to those particles of the divine Light which can be collected in the "Column of Glory". This explains why its Sogdian equivalent *wkršnyy* (*kršn* = form, shape) means "Column of Glory" (*BBB.*, 67; Benveniste, *BSOS.*, ix, 513 n.), and helps to understand MPers. *xwyš-cyhr-yzd*, *Mir. Man.*, i, 187, n. 3 ("the increase of the moon through the Column of Glory").

² It belongs to a series of hymns in which his chief emanations (such as the Sun-god and Jesus) are lauded, cf. Waldschmidt-Lentz, *Stellung Jesu*, 70 sq., 118 sq. The stereotyped opening formula (up to *p'dgyrb*) refers to the Father of Light. The translation given by Lentz, *loc. cit.*, can hardly be justified.

the aspect and power of the Father, the first ancestor, the hidden and miraculous giant".¹

In several passages one could translate *brahm* as "form" or "elegant form, gracefulness, charm".² The following verses are taken from the hymn-cycle *Angad-Rōšnān*, composed by Mār Ammō³ in the latter half of the third century (vii, 12 and 25-6):—

'wd wzymryd 'wd wzwyd, cw'gwn w'r systg
ky pd 'bd'b hwšyd, u hw brhm wygnyd

He withers and fades as a broken rose,
That wilts in the sun, whose grace is destroyed.

'wd hmg jywyr, cy wysp twxm u [. . .]

'c tgnbnd wygnynd, u y'dynd 'w 'bn's

['wd hm]g 'wrjwg, zrnyn 'd hrw brhm

[]dwr, u 'ndyšt buynd pd hw

The whole of the lives of all races and . . .

Will swiftly be wrecked and brought to perdition.

The whole of the lusts, gilded with all their charm,

..... fire, will be heaped on it.

Here we could also mention two compounds, (1) *brahmāwend* "endowed with *brahm*" in *Mahrnāmag*, 314, "z'dgwn *brhm'wynd gryw* "Noble, graceful soul", and (2) *wadbrahm* "possessing bad *brahm*", apparently = "scandalizing", in M 177 R 5 (*HR.*, ii, 88) where the evil effects of meat-eating are listed, ". . . fourthly that the soul is sullied, fifthly

¹ I fear it is almost impossible for anyone who is not fairly well versed in Manichæan ideas, to understand a passage of this kind. The Father of Light, the "first ancestor", is "hidden". He is in no way concerned with the world where his emanations operate on his behalf; they can thus be viewed as his sign or aspect in the world. The words "your Self" restrict the application of the opening formula to four divinities, viz. Mother of Life, Friend of Light, Third Messenger, and Jesus. "Beautiful East," far from being a poetical turn of phrase, is merely (in connexion with the preceding word "Self") a complicated way of naming the Third Messenger (cf. Waldschmidt-Lentz, *Man. Dogm.*, 546, *cn xwrn kyr'n myšyy βγγy cn γrywy*).

² Cf. Salemann, *Man. Stud.*, 62.

³ See *BSOS.*, xi, 216, n. 6.

that it increases lust, sixthly that he (= he who eats meat) becomes evil-mouthed, seventhly that 'w ws'n wdbrahm buyd it (or : he) scandalizes many people, eighthly that the purification of the Pious Gifts is neglected, ninthly that the poor are left without alms, etc."

The last-quoted passage leads up to the moral aspect of *brahm* which sometimes can be rendered by "correct behaviour, propriety" or even "morals". We find it associated with *xrad*, here presumably = "admonition, counsel" (as, e.g., Armenian *xrat*). Thus in M 210¹: [*b*]'rygyc xrd 'wd brhm 'y 'w ywjdr'n^{sic} 'wd 'spwrg'r'n prmw'd 'styd^{sic} o mn pdyš swst 'wd qmbgyh^{sic} nyzwr 'wd m'ndg hym "And also the other injunctions and morals that are prescribed to the Pure and Perfecters (i.e. the Manichæan monks)—in them I am negligent and deficient, weak and remiss". Similarly in M 174 (*Man. Dogm.*, 555) *pd hrwysp xrd 'wd brhm 'yg 'rd'yh* "through all injunctions and morals of Righteousness (i.e. the Manichæan community), the five good commandments of Piety and the three noble Seals, etc."

It is well known that the Chinese *Traité Manichéen* was translated from a Parthian original of which a number of small fragments are preserved. They are invaluable for determining the meaning of difficult Parthian words, but unfortunately still unpublished. Happily *brahm* occurs in one of the fragments, M 349 V 1, *š'x brhm naxšg* "the branch (of the third good tree) is *brahm naxšg*". This corresponds to Chavannes-Pelliot, *Traité Man.*, 66 [562], lines 11–12, "*ses branches, les règles imposantes.*" The Chinese term, 威儀, acc. to Chavannes and Pelliot, *loc. cit.*, n. 2, *existe dans le bouddhisme, où il désigne les rites, le karman ou kar-mavacana*. But if we take the Chinese characters separately, we would have *naxšg* = 威 "majestic, overawing, imposing", and *brahm* = 儀 "righteous and proper demeanour, deportment, politeness, ceremony, usages" (Karlgren). Hence, *brahm naxšg* = "impressive demeanour",

¹ This text was hardly written before the tenth century, cf. *BBB.*, p. 14.

or "awe-inspiring ceremony". It seems that *brahm* refers to dignified behaviour (as suited to ceremonial acts) rather than to the actual rituals.

However, while in the case of *brahm* the Chinese equivalent covers the meaning of the Parthian word, the same cannot be said of *naxšag*. In choosing the Buddhist term the translator did justice to *brahm* and probably also to the meaning of the whole phrase, but was forced to neglect *naxšag*. For elsewhere *naxšag* corresponds to English "nice" (in its colloquial sense) and sometimes approaches "auspicious". Cf. *Mir. Man.*, iii, b 199 (p. 859) ". . . he comes to you full of love, so you too should receive him as you would your own son, and train him well (*naxšag*) in the art of writing, etc." M 177 V 4 (*HR.*, ii, 89) 'w xyjbr' "wsyg w'x[t] kw z['n'm kw] d'r'wpuhr bwg wynd'd 'h'd cym nys'n naxšg dyd "he said to X.A.: I know that D. has obtained redemption, for I have seen an auspicious sign". M 248 R 1 + M 520 V 4, bwy wxš naxšg "delightful spices". M 98/9 ii 28a, jm'n nyw naxšg "the hour is very auspicious". Curious is the chapter heading in M 267b V i 3-4, šhr pd pnj 'yr naxšg 'štyd "the world is *naxšag* = commendably well arranged in five points", where the chapter itself begins in this way: byd w'xtg kw šhr pt pnj 'yr pd brhm naxšg 'štyd "And again he said: The world is well arranged in five points as regards behaviour (*brahm*)". Further on, pd pnj 'yr dwšfryft u n's 'w šhr "synd 'yw kw xwd'y 'wt s'r[d'r] bzqr bwynd 'wt 'w d'd 'byd'd qrynd "in five points unhappiness and ruin reach the world, firstly that lords and chieftains become sinners and pervert the law". In view of the evidence for *naxšag* we may conclude that the Parthian author understood *brahm naxšag* to mean "nicety of ceremony, or demeanour".

As result of this inquiry we may say that MPers., Parthian, and Pahlavi *brahm* is appearance or form or style in general, especially of persons, be it the outward appearance (whence "form, gracefulness; fashion, costume, dress") or the style of behaviour (whence "demeanour, propriety, ceremony").

It is a high-toned and slightly pompous word. The texts where it is found belong to the period from the third to the tenth century.

It will be readily seen that the meaning thus established for Middle Iranian *brahm* fits also Old Persian *brazman-* in *artācā brazmaniya* (see above, p. 108), "I worshipped Ahuramazdā behaving (*or* : acting) in the proper ceremonial style in accord with *Ṛta* (the eternal Law that dominates the world and all its institutions)," or simply "I worshipped Ahuramazdā in proper style".

There is no doubt that Old Iranian *brazman-* is the perfect equivalent of Indian *bráhman-* phonetically. But their meanings, too, agree closely. In India the word was narrowed to "the ceremonial behaviour and acts of priests at sacrifices", or briefly "rite"; it was further restricted to "the recitations that accompanied and formed part of ritual acts", whence "sacred texts". It will be noticed that Indianists often rendered *bráhman-* with "rites"; even Roth's "*Andacht*", i.e. the mental attitude in which the believer approaches the divinity, is not far removed from "the correct ceremonial behaviour". If we look at the numerous *R̥gveda* passages for which Charpentier gave "*Zauber, Zauberhandlung, Zauberritus*" (pp. 85 sqq.), all we have to do to arrive at the correct meaning is to remove the superfluous word "*Zauber-*" which after all merely puts a somewhat unjustified valuation on the religion of the Ancient Indians. The priest *brahmán-* is a person who is versed in *bráhman-* = ceremonies and rites, cf. Charpentier, p. 9.

The study of the meaning of *bráhman-* has been greatly confused by dragging in Av. *barəsmān-* "Barsom-twigs" and the words allied to it. This entailed (1) the ill-founded assumption that *bráhman-* was evolved by metathesis from an earlier Indian **barhman-* (Wackernagel, i, 213; Charpentier, 60), and (2) a truly phantastic scheme of semantic development, from "bunch of grass or twigs, grass strewn to serve as seat, etc.", to the actual meaning of *bráhman-*. It is obvious

that this derivation cannot be maintained in view of the presence in Iranian, too, of a word that in meaning and form is identical with *bráhman-*, and which existed side by side with OIr. *barzman-* (Av. *barəsmān-*). Evidently we have before us two different stems, which are distinguished by their meaning and by the position of the *ḡa*-vowel¹ :—

(A) form, style, ceremony, rites.

Skt. *bráhman-*, weak stem *bḡhaspāti-*.

OPers. *brazman-*, MPers. Pahl. Parth. *brahm*, Pahl. *brahmak*.

(B) bundle of twigs, bed of grass, pillow.

Skt. *barhís-*, *upabárhana*, etc.

Av. *barəziš-*, Pers. *bāliš*,² Oss. *baz*, etc.

OPers. *barzman-* (in *brzmdn'* in an Aramaic inscr.), Av. *barəsmān-*, Pahl. *barsom*, Arm. lw. *barsmunk'*, Syr. lw. *bursmā*, etc.³

OIr. **barzn-* (and **brzanaka-*) in dialects, see Morgenstierne, *IIFL.*, i, 241; ii, 260. OIr. **barzaina-* in Pers. *bāīn*.⁴

Armenian *barj*.

There is little hope of discovering the ultimate origin of *bráhman-/brazman-*. In view of the meaning "form, style, etc." which I have tried to establish in this article, it may be of interest to point to the combination with Latin *forma* which is due to Osthoff (*BB.*, 24, 113 sqq., especially 132 sq.; cf. Charpentier, 7 sq.). A suitable verbal root can perhaps be found in Sogdian Chr. 'mbrz *br-*, 'brz *br-* (*S.T.*, i, 24¹¹, 30¹³, 31¹¹) = *ἐπισκέπτομαι*, Syr. *s'ar*, in Manichæan script 'nβrz *br-* (M 1207, 11 = T i a), and Buddh. 'nβ'rzkr'k,

¹ Only the more important forms are given here.

² The *-n* of Pahl. *bālišn* is due to wrong analogy and merely inverse spelling; differently Horn, *Grdr. Ir. Phil.*, i, B, 183.—Here also Bal. *barzī* acc. to Morgenstierne, *NTS.*, v, 41.

³ P. Thieme, *ZDMG.*, 92, 50 sqq., explains Skt. *barsva* as a prakrit form of this Iranian word.

⁴ Possibly *brzyn* in Parthian, see *Sogdica*, p. 41.

'nβ'rzkr'y = anβ^arzkarē (VJ., 254, 1337) which M. Benveniste translated as "introducteur au palais, maître des cérémonies".¹ These words reflect OIr. *ham-brza- and *ā-brza-. One could mention also Man. Sogdian 'βzn-,² possibly = χειροτονία, which may continue OIr. *brzna-.

¹ Gauthiot-Benveniste, *Gramm. Sogd.*, ii, 105. The spelling amβarž, etc., is wrong. -z- is attested in Chr. and Man., -z- and -ž- are never confused in Sogdian. Therefore, amβ^arz cannot be connected with Av. barag- or Av. bərəg-, nor can OPers. brazman-. Herzfeld, *loc. cit.*, p. 118, confuses velars and prepalatals.

² The text will be published in an article on "Sogdian Tales".

SOME THOUGHTS ON THE PHONEME

By DANIEL JONES

It seems to me that the most important thought suggested by a consideration of the theory of phonemes is one of a very general nature, namely that the fundamental concepts upon which all sciences are based are incapable of definition. Either a so-called "definition" implies a reference to the thing to be defined, or it has loopholes for exceptions and is therefore not a complete definition. Take for instance a case from zoology, say a dog. We can attempt a definition of it as a four-footed mammal having certain characteristics, but the definition is not complete. It would, I imagine, always be possible that an animal might exist having all the characteristics that one could put into a definition, and yet which was not a dog, or that an animal might be found differing considerably in appearance from the dogs hitherto known but which nevertheless was undoubtedly a dog. I was once talking to Professor Otto Jespersen on this subject, and he told me of a "definition" of a dog which he had heard: a four-footed mammal, etc., *which is recognized by another dog as such*. This is conclusive proof that a particular animal is a dog, but it is no definition. The "definition" in the *Oxford English Dictionary* is no better: a quadruped of the genus *Canis*.

One can produce different kinds of dogs to exemplify what they are, and one can describe their appearances and habits up to a certain point. But this is not the same thing as giving a definition.

To give another example, most, if not all, sciences are concerned in some way or other with numbers. Yet numbers are not definable except in terms of themselves; in other words they are not definable at all. We think we know what the number 2 means, but there appears to be no way of

defining it without using some such word as *and* or *with* or *next* which already involves the conception of *two*. The whole of mathematics is therefore based on the unproved assumption that the number 2 exists and that people know what it means.

Here again we can give plenty of illustrations of numbers and explain what can be done with them, but that is not the same thing¹ as defining them. Similarly in physics one can give examples of colours, but they cannot be defined except in terms of themselves or in terms of numbers.

The fact that all sciences are based upon concepts or units which are undefinable, and which therefore cannot be said to form a firm foundation, does not mean that scientific studies should be abandoned. On the contrary, they should be pursued and developed in every possible way, and that for an excellent reason: such studies are part of the search for truth, part of the task which man is presumably in existence to perform. Moreover scientific studies can and do give results of value to us, results that work, results which, if we do not abuse them, are conducive to the well-being of humanity. Owing, however, to the undefinable nature of our units and the vagueness of our words (see footnote 1 below), it seems to me that we cannot escape from the conclusion that "scientific proof" of a thing is not so valuable as many people consider it to be.

General considerations such as these are suggested by observations in the science of phonetics as in other sciences. We make use of terms denoting fundamental concepts such as "words", "speech sounds", and "phonemes", but it is found upon examination that no unassailable definitions can

¹ From this expression we see very clearly the truth of L. R. Palmer's apt remark (*Introduction to Modern Linguistics*, p. 82) that "speech is nothing more than a series of rough hints which the hearer must interpret in order to arrive at the meaning which the speaker wishes to convey". The words *same* and *thing* are both undefinable words. We can give synonyms for them, but we cannot define them. Yet I assume that you know what I mean when I use the expression "the same thing".

be given of any of these things.¹ But, as with other sciences, we can get valuable results from phonetic science in spite of our inability to give precise definitions of these terms. Particularly valuable results of applied phonetics are the improvement of means of communication between people of different nations by speech and by writing.

Now phonemes, the subject of this paper, are certain essential units which form, or appear to us with our present limited knowledge to form, the basis of the structure of spoken languages. They are also the units that need representation when a language is written alphabetically. I believe the majority of those interested in the science of speech are in agreement so far. But beyond this we find differences of opinion concerning the exact nature of these units we call phonemes. So much so that a suggestion has been made that we might leave the question of definition at this point, and say that a phoneme is any element or family of elements of a given language which it is found advisable to represent by a single letter in writing. Such a rough and ready manner of defining the phoneme will serve practical needs up to a point, but there are certain objections to it, as I shall show later.

Although I believe phonemes to be undefinable, like the fundamental units in other sciences, it is nevertheless needful for the purposes of linguistic study to examine in some detail the nature of these elements, and if possible to produce a so-called "definition" of the phoneme of a more precise kind than the one I have just mentioned.

Before proceeding further it is necessary to point out that the phoneme may be viewed in at least two very different ways. Some authorities have looked at phonemes in what may be called a "psychological" manner. They regard them as

¹ The best definition of a "word" is, I believe, that given by L. R. Palmer (*Introduction to Modern Linguistics*, p. 79): "the smallest speech unit (= constantly recurring sound pattern) capable of functioning as a complete utterance."

“ideas” or “mental concepts”, or whatever may be the appropriate psychological term. Personally I feel drawn towards this view,¹ but I find it difficult to work with in practice. Others have taken a what may be called “physical” view of phonemes, regarding them as families of sounds actually uttered. This way of regarding phonemes I find to give good results in practice, in spite of certain difficulties which are to be found in connection with it. A third view has been expressed by the American writer on linguistic subjects, W. Freeman Twaddell, who considers that phonemes have no real existence either “physically” or “mentally”, but are merely “abstractional fictitious units”—whatever that may mean.

As the “physical” view of the phoneme leads to satisfactory practical results in my experience, I will now give you a few examples of phonemes considered in this light—for, as we have already noted, it is possible to give illustrations of fundamental units even though we cannot define them. These examples will give you a fair idea of what we are talking about. After that I will call attention to some of the difficulties encountered when we attempt to formulate a precise definition of what a phoneme is.

If one isolates the sounds of *g* in the words *goose* and *geese*, one hears them to be different, and one can feel that they have different tongue articulations: the second has a fronter articulation than the first. But from the point of view of the structure of the language the two sounds count as if they were one and the same. In the terminology I find it convenient to use they are “members of a single phoneme”. One of the sounds is the variety appropriate in English to a following [u:], while the other is conditioned to the following [i:]. The two sounds count as if they were one, and in every ordinary phonetic transcription they would be written by the same letter. It is obviously unnecessary to complicate

¹ See my paper on *Concrete and Abstract Sounds* in the *Proceedings of the Third International Congress of Phonetic Sciences* (Ghent, 1938), p. 4.

a transcription by using two different signs: we use one sign, and state or imply once for all that the variety of [g] used is always adapted to the vowel which follows.

The following are some further examples. In French (ordinary conversational Northern French) when words like *boucle*, *simple* occur with a pause after them, the sound of the *l* is voiceless [l̥]; it is a sound acoustically very different from the ordinary French [l] of *loup* or *aller*. But in spite of the wide difference of sound no French person thinks of this [l̥] otherwise than as an *l*; he probably will not notice any difference between these very different sounds unless his attention is specially called to it. If he hears the difference, he will regard the [l̥] as a slightly modified [l], a particular variety used in this special position. The two sounds [l̥] and [l] thus count in French as if they were one. In our terminology we say that they "belong to the same phoneme".

In Italian and some other languages our English *ng*-sound occurs, but only in specific phonetic contexts, namely before [k] and [g]; it is used in these contexts to the exclusion of [n]. Thus the *n*'s in the Italian words *banca* and *lungo* are pronounced [ŋ], and an Italian never uses an ordinary [n] in such a situation. He is not like a Russian who uses [n] before [k] and [g] as well as in other positions. The result is that an Italian whose attention has not been called to the fact is unaware that the sound of *n* before [k] and [g] is in any way different from that of any other *n*. To him these nasal consonants are one and the same, and for all linguistic purposes they count as if they were one and the same—the sounds [n] and [ŋ] are "members of the same phoneme" in Italian. (They are not so in English or in German.)

The examples given above are of consonantal phonemes. There are likewise cases where easily distinguishable vowel sounds have to be grouped together and count linguistically as if they were one and the same. Very notable cases of this are found in Russian, where the qualities of vowels vary considerably according to whether they are next to "hard"

or "soft" consonants. For instance the [a] of ['jabləkə] (яблоко, apple) differs noticeably from that in ['jaʃtʃek] (ящик, box). Russian shows differences of this kind better than any other European language, but examples are also to be found in French, Spanish, Danish, and to some extent English. There is, for instance, the well-known case of "[e] moyen" in French, which is undoubtedly not a separate phoneme; it, so to speak, takes the place of "[e] fermé" in non-final syllables: the two vowels of *été* are not the same, the first being the "[e] moyen", a sound intermediate between close [e] and the opener sound [ɛ]. In Danish the [a] in *Sand* [san'] (sand) is noticeably different from that in *Sang* [saŋ'] (song), a more retracted variety being used before [ŋ]. In Spanish [e] preceding [r] is opener than in other positions; for instance the first [e] in *fuerte* is opener than the [e] in *mes*. In my kind of English the [ei] of *stay* is not the same as that in *station*, though for linguistic purposes the two sounds must obviously count as if they were one—two members of one phoneme.

Examples like those quoted above give a rough idea of what a phoneme is. And you will see incidentally that different members of the same phoneme can never be used for the purpose of distinguishing words. You cannot for instance change one Italian word into another by substituting [n] for [ŋ], or distinguish French words by substituting [ʃ] for [ʃ]. Words are distinguished by phonemes and not by sounds.

Now I want to put before you a few propositions for your consideration, to which, as it seems to me, serious attention must be given before we can understand more definitely what the term "phoneme" can mean.

* * *

Proposition 1. It is necessary to give a special restricted meaning to the expression "a language" when speaking of the phoneme. We cannot take the term "a language" with the signification generally given to it, which is, I suppose,

some typical form of speech together with various other forms diverging from this. In my view a theory of phonemes can only be based upon the speech of one particular person. Other speakers of the same "language" may use different sounds, they may distribute their phonemes differently, and they may even have a different number of phonemes. I will give a couple of examples to illustrate the kind of thing I mean.

1st example. In South-Eastern English as I speak it there is no difference in sound between *horse* and *hoarse*; I pronounce them both [hɔ:s]. But in Scotland and many parts of England the words are differentiated by different vowel sounds: in Scotland [hɔrs] and [hɔrs], in the West of England [hɔɪs] and [hɔɪs]. Whether you make this distinction or not, you are speaking the English language in the general use of the term "language". But in considering the nature of the phoneme these two ways of pronouncing must, in my view, be considered as belonging to two different languages. Whatever view you may take of the phoneme, you cannot get away from the fact that in these words some speakers use two different phonemes while others use only one.

2nd example. Here is an example from French. There are, as is well known, several shades of *a*-sound used in French. Some French speakers use two well-defined shades, a "front" [a] and a "back" [ɑ] for distinguishing certain words, e.g. *moi* [mwa] and *mois* [mwa], *fois* [fwa] and *foie* [fwa], *la* [la] and *las* [la]. Others, however, do not distinguish these or any other pairs of words by means of different varieties of *a*-sound. We are therefore forced to the conclusion that some Frenchmen have two *a*-phonemes and others only one.

For reasons such as these I submit that when we speak of "a language" in discussing the nature of phonemes we must confine ourselves to the pronunciation of a particular speaker. In fact I think we should go even further, and restrict ourselves to the pronunciation of a particular person speaking

in one particular style, since the pronunciation of someone talking rapidly is often different from what he would use when saying the same words slowly.

* * *

Proposition 2. This brings me to my second proposition, which is that the only kind of speech that can be reduced to phonemes at all is a *consistent* style of utterance. Many people's way of speaking is to some extent *erratic*, words being sometimes pronounced in one way and sometimes in another, apparently at random—without any assignable reason.

Erratic pronunciation may often be observed in the speech of people who have lived in different parts of a country, in different regions where the same "language" (in its broad sense) is spoken, e.g. people of Scottish parentage who have lived for a long time in Southern England and have what is called a slight Scottish accent. They may for instance be erratic in their way of saying such a word as *coat*, giving it sometimes the pure vowel sound characteristic of Scottish speech or sometimes a more or less diphthongal sound approximating to that used in the south. Their vowel in this and similar words is unstable. Similarly they may sometimes use the Southern English short [u] in such a word as *book*, and sometimes the Scottish sound. They may sometimes roll their *r*'s before consonants and sometimes not, and so on. It would appear that erratic speech due to mixture of dialect is particularly prevalent in the U.S.A.¹

¹ For instance in *American Speech*, December, 1941, p. 291, we find that a certain speaker is recorded as pronouncing the second syllable of *America* in one place with a vowel written [æ] and in another with a vowel written [ɛɾ], while the first vowel of *guarantee* is written [ɛ]; this speaker evidently uses varieties of [ɛ] and [æ] before [r] indifferently, i.e. the variants are not conditioned in any way by phonetic context. Again, according to a transcription on p. 42 of *Phonetic Transcriptions from "American Speech"*, edited by Jane Dorsey Zimmerman, 1939, the pronunciation of a well-known radio speaker is shown to be erratic in the sound given to stressed *er*; it is recorded in that transcript sometimes with the symbol [ɜ], sometimes with [œ] and sometimes by a special sign [ɜ̣] meaning a retroflexed variety of the sound denoted by [ɜ].

Erratic pronunciation also arises from a mixture of the different styles of speaking that one uses—the formal precise style, the rapid colloquial with its multitude of contractions and assimilations (“telegraphic” style in which one suppresses or slurs over everything that is not essential to intelligibility in conversation), and intermediate styles.

I submit that it is quite impossible to devise any system of phonemes that will apply to erratic pronunciation—that phonemes can only be established in a consistent form of a language such as Paul Passy’s “prononciation familière ralentie” (slow conversational style) or possibly in some kinds of formal style. Rapid conversational speech is generally erratic, and cannot be reduced to phonemes; and mixed dialect cannot be reduced to phonemes for the same reason.

The examples of phonemes already given show that the whole idea of the phoneme is to consider as a single entity two or more distinct sounds the use of which is conditioned by *phonetic environment*. We cannot, in my view, make a phoneme also include sounds which are not so conditioned, such as the sounds of a speaker who pronounces the word *coat* sometimes with a Scottish vowel and sometimes with an English one. Moreover, if one takes a “psychological” view of the phoneme, it is evident that one cannot assume that one speaker aims at exactly the same sound as another; the phoneme can therefore only appertain to the pronunciation of a single speaker and one whose pronunciation is consistent.

If it is true that everyone’s speech is erratic in some degree, we must still further limit the signification of the term “a language”, and take it to mean the speech of an imaginary “average” person speaking consistently in a particular style.

* * -*

Proposition 3. My third proposition is that a system of phonemes should as a general rule be based upon the pronunciation of single isolated words and not upon connected

speech. I have to assume that you know what the word "word" means, though as in the case of other fundamental units I believe it to be impossible to give a definition of it which is not subject to exceptions. It has often been pointed out that there are no interruptions in "speech-chains"—that we do not pause between words except for a special purpose, e.g. to take breath, or at the ends of sense-groups. Apart from these pauses the stream of speech-sounds is continuous. Phonetic texts have been published by Sweet and others, in which the words were run together, in order to demonstrate this. But the fact that there are no pauses between words does not mean that there are never any indications of word division in continuous speech. There often are such indications.¹ My attention was first called to this fact by noticing a transcription somewhere in Sweet of the expression *well-to-do*, which he wrote [ˈweltəˈduː], and I realized at once that the first two syllables were pronounced quite differently from the word *welter* which he would have equally transcribed [ˈweltə]. On examining the question further it became clear to me that, not only were lengths involved as in this case, but that connected speech may contain sounds which are not found in isolated words, and that consequently if we try to evolve a system of phonemes from connected speech we may have to admit a larger number of phonemes than in a system based on single words.

The type of difficulty we should be confronted with is illustrated by the expression *plum pie*. There is no pause after *plum*, but if for this reason the words were written together as one [plampai], the writing would be ambiguous. In the absence of some written indication of word division, this sequence might be read as *plump eye*. There are two main differences in pronunciation between these two expressions. One is that the [m]'s are of different length; the other is that the second has an unaspirated [p], while in

¹ See my article *The Word as a Phonetic Entity* in *Le Maître Phonétique*, October, 1931, p. 60.

the first the [p] is aspirated, at any rate in Southern English speech. There may also be a subtle difference in the point of incidence of the stress. Accordingly, if we were to base a system of phonemes on connected speech, and if the idea of the phoneme is restricted to sound-qualities only (and not extended to include length and stress), we should find ourselves in the position of having to consider aspirated and unaspirated [p] as two separate phonemes in English.

To give another example from English, in colloquial speech we sometimes find nasalized vowels at word junctions without any adjacent nasal consonant, as in the expression [aidoũwontit] (reduced form of *I don't want it*). If this style of speech were to be taken into consideration, the nasal diphthong [oũ] would have to be regarded as a phoneme of the language. But it is clearly not advisable to regard it thus both on the ground that the sound occurs without an adjacent nasal consonant solely in connected speech, and on the ground that the style of talking in which such a form would occur would almost certainly be erratic.

Examples can be found in foreign languages illustrating the same kind of thing. For instance the vowel and consonantal values of the French written *u*, i.e. the sounds generally transcribed [y] and [ɥ], belong to a single phoneme if we classify on the basis of words; for the two sounds never occur in identical situations in French words, and consequently the substitution of one sound for the other is never used as a means of distinguishing one word from another. Whether a written *u* is pronounced [y] or [ɥ] in a word is merely a matter of rule, of phonetic context.¹ If, however, phonemic grouping

¹ Always [y] finally and before consonants. Before vowels the rules are as follows:—

- (1) Always [ɥ] before [i], e.g. *lui, pluie, instruit*.
- (2) Always [ɥ] before other vowels if a single consonant precedes, e.g. *tuer, nuage*.
- (3) Always [y] before other vowels if two consonants precede, e.g. *cruel, influence*.

were to be determined by connected speech, these two sounds would have to be considered as separate phonemes, since sequences like [yi], and single consonant + [yɛ], occur at word junctions: compare [tyɛ] (*tu es*), [tʰyɛ] (*tuait*), [i(l)layisi] (*il l'a eu ici*), [ilayisi] (*il a huit scies*), [ilapyiale] (*il a pu y aller*), [ilapɥi] (*il appuie*), [tyiɛ] (*tu y es*), [tɥio] (*tuyau*).

It would seem too that voiced and voiceless [r] would have to be considered as two separate phonemes in French, if connected speech were to be taken into account. For, as Paul Passy once pointed out,¹ many French people distinguish between [trwɔptitʁu] (*trois petits trous*) and [trwɔptitru] (*trois petites roues*), the latter expression being pronounced with a completely voiced [r].

Another example illustrating the kind of thing I mean is, I believe, to be found in Portuguese. Those who know that language will remember that when [l] terminates a word it has a "dark" or velarized value [ɫ], but that an ordinary [l] of medium resonance is used when a vowel follows in the same word: for instance *mil* (a thousand) has a "dark" [ɫ], quite different from the French [l] in *mille*, but *militar* has an ordinary [l] like the French one. These two sounds therefore belong to a single phoneme if we classify on the basis of single words. It appears, however, that in connected speech dark [ɫ] may occur when a word ending with an *l* is followed by a word beginning with a vowel. I find, for instance, the transcription [taɫ itres] (for *tal interesse*) and other similar examples in Viana's *Portugais*.² This indicates that ordinary [l] and velarized [ɫ] would have to be regarded as separate phonemes if we made our phonemic classification of these Portuguese sounds on the basis of connected speech.

In some languages, of which German is the most noteworthy, it appears necessary to base the phonemic classification on something less than the word, and to regard certain prefixes and suffixes as separate word-like entities. The average

¹ *Sons du Français* ?, p. 61.

² Teubner, Leipzig.

North German speaker appears to have an unusually distinct feeling for word division, and he evidently feels too that these prefixes and suffixes are very much like separate words. It is for this reason that the glottal stop [ʔ], although of very frequent occurrence, need not be held to constitute a phoneme at all. It is simply, as Trubetzkoy pointed out,¹ a signal that there is a division between words or to show that there is a prefix. The point is illustrated by such a word as *Wohnort*, which is pronounced in North German with [ʔ] between the [n] and the [o], thus ['vo:nʔort], because the second part of this compound is *Ort*; there is no such word as ['vo:-nort]. Similarly *Verein* is pronounced in North German as [fɛr'ʔain] because *ver-* is one of the prefixes which North Germans apparently feel as separate from whatever follows. The prefix *her-*, however, (if it is a prefix) is one which presumably they do not feel in this way, *herein* and other similar words being pronounced without [ʔ]: [hɛ'rain], [hɛ'runter], etc.

The question whether the German *ich*-sound is to be held to be a separate phoneme from the "back" sounds of *ch* heard in such words as *Bach* and *Buch* depends upon the word-like nature of the diminutive suffix *-chen*. If this is regarded as a "word" or as a word-like entity, we find that [ç] and the various shades of [x] should in all probability be assigned to a single phoneme. For [ç] is then found to occur in definite phonetic contexts from which the back [x]-sounds are excluded.² The words ending in *-chen* include some in which this suffix is immediately preceded by a back vowel, such as *Frauchen*. This shows that if *-chen* were not considered as

¹ *Grundzüge der Phonologie*, p. 244.

² The rules for the use of the two sounds are (1) [x] only occurs at the ends of syllables, and then only when an [a], [o] or [u] sound precedes, (2) [ç] occurs in all positions other than these, namely (a) at the beginnings of syllables and (b) at the ends of syllables when a front vowel or a consonant precedes. Examples are: (1) *Bach*, *hoch*, *Buch*, (2) (a) *Chemie* [çɛ:'mi:], *Chrysalis* ['çry:zai:lis], *archaisch* [ar'çai:ʃ] and all the words ending with the termination *-chen*, (b) *ich*, *tüchtig*, *recht*, *durch*.

a sort of "word" [x] and [ç] would have to be classed as separate phonemes: *Kuchen* ['ku:xen] and *Kuhchen* ['ku:çen] are distinguished by these consonants. It is therefore only by regarding *-chen* as a separate word that we can assign them to the same phoneme. (In writing one could show the word division by inserting a hyphen: if [x] were used to denote the phoneme, these words could be distinguished phonetically as ['ku:xen] and ['ku:-xen].)¹

We may put the matter in another way. If we did not know where German words began and ended, we should be obliged to class [x] and [ç] as separate phonemes, since it is possible for such sequences as [-o:xry:-] and [-o:çry:-] to occur in connected speech.

So much for the proposition that the basis for any theory of phonemes is to be found in the pronunciation of single words (or word-like entities) and not in connected speech.

* * *

Proposition 4. The term "phonetic context" should be held to comprise not only the nature of neighbouring sounds but also lengths of sounds (both of the sounds under consideration and those near by in the sequence), the stress of syllables and, in the case of tone languages, voice pitch. I mention this because Bloomfield and others in America have used a different terminology, employing the term "phoneme" to mean anything that may serve to differentiate one word from another—a defensible terminology, but not

¹ An exceptional word is *Wacholder* [vax'older] (juniper). Our theory concerning [x] and [ç] can only be maintained on the supposition that in this word the [x] is held to terminate the first syllable in spite of the absence of glottal stop before the [o]. It is, however, said (e.g. in *The Advancement of Science*, vol. iii, No. 9, 1944, p. 17) that only such hypotheses as are compatible with all the known facts are valid, and as soon as a single fact is found to be incompatible with it, the hypothesis, and maybe with it a whole theory, must be dropped. Ought we therefore to take it that the unusual form of the single German word *Wacholder* causes the collapse of the theory that [x] and [ç] may be assigned to a single phoneme, and with it the possible corollary that the whole of the theory of phonemes must fall to the ground? I think not.

that intended as far as I know by the originators of the phoneme theory. I find it preferable to treat length and voice pitch separately, since they too are subject to variations conditioned by phonetic context, so that parallel to the theory of "phonemes" there are separate theories of what may be termed "chronemes" and "tonemes". (There does appear to be any analogous theory applying to stress.)

* * *

Proposition 5. Except possibly in certain very uncommon special cases it is absolutely inadmissible that a sound should belong to more than one phoneme. For instance, it will not do to say, as has been suggested to me by one colleague, that [ŋ] is generally a separate phoneme from [n] in English, but should be considered as belonging to the [n] phoneme in *ink* [iŋk]. I maintain that if these sounds belong to different phonemes in *sing* [siŋ] and *sin*, they must be held to belong to separate phonemes wherever they may occur in the language. Any other supposition appears to me to involve insuperable difficulties: one of them is that [m] might with equal right be considered to belong to the [n] phoneme in *lamp*, since such a sequence as [lanp] is impossible in English.

The possible exceptions are (1) when one phoneme overlaps another (as French [ɔ] and [œ]),¹ (2) where there is no more reason to assign a sound to one phoneme rather than to another (as Japanese [dz] in the syllable [dzu] which from the phonetic point of view may be assigned either to the [d] or to the [z] phoneme).²

* * *

Proposition 6. The sounds belonging to a phoneme must have some sort of fairly near relationship to each other.

¹ The retracted variety of [œ] used before [r], in such a word as *heurter* [œrte], has much the same quality as the advanced variety of [ɔ] used in such words as *note* [not], *possible* [posibl].

² The Japanese now treat the sound as belonging to the [z] phoneme, and write it in all words with the letter *z* in their new Romanic orthography. Formerly, for reasons connected with dialectal speech and the history of the language, they used to write it with *z* in some words and *d* in others.

Thus it would be clearly undesirable, as has often been pointed out, to assign [h] and [ŋ] to the same phoneme in English on the ground that the two sounds never occur in the same phonetic context: they are too different from each other, the only feature they have in common being that they are both continuants. It is, however, apparently impossible to lay down any general rule as to what the degree of relationship must be: one has to be guided by the conditions in each particular language. It is worth while pointing out, however, that the relationship may be either acoustic or organic. Thus the different values of [h] in English are organically very distinct; they differ from each other in the same sort of way that one vowel differs from another, though acoustically the differences are hardly perceived. On the other hand the acoustic difference between the French sounds [h] and [ɦ] is very considerable though the organic difference is merely a matter of making the vocal cords vibrate or leaving them apart.

The question as to what constitutes sufficient "relationship" has, I think, to be left unanswered. We have to use common sense about it. And I submit that this admitted vagueness does not in any way invalidate the theory of phonemes or diminish its usefulness.

* * *

Bearing all these propositions in mind, we can formulate a sort of definition of a phoneme in these terms: *a family of sounds in a given language which are related in character and are used in such a way that no one member ever occurs in a word in the same phonetic context as any other member.*

This is a "physical" definition. It is, however, important not to forget that it may be found possible, as already mentioned, to regard phonemes in quite a different light, namely on what may be called a "psychological" basis. We might take them to be abstract sounds that one so to speak aims at producing but which in actual utterance come

out as one sound in one context and another in another context. This was I believe the original idea of Baudouin de Courtenay, the first exponent of the phoneme theory. However, for the ordinary purposes for which the theory of phonemes is employed, i.e. in analysing languages, teaching their pronunciation and devising phonetic transcriptions and orthographies, I find the "physical" conception suggested by the above definition to be of greater practical use.

THE PHILOLOGICAL SOCIETY
BALANCE SHEET, 1943

GENERAL FUND

	£	s.	d.	£	s.	d.
To Balance						
Annual Subscriptions 1940 (1)	1	1	0			
1941 (1)	1	1	0			
1942 (2)	2	2	0	4	14	3
1943 (125)	131	7	4	5	2	2
1944 (2)	2	2	0	5	2	2
	137	13	4	5	4	7
Interest:						
Post Office General Fund Account (1942 and 1943)	57	19	5	31	10	0
Life Fund:				12	12	0
War Loan						
P.O. Life Fund Account (1942 and 1943)	11	6	6	9	9	9
Sales				121	4	11
Life Subscriptions				1,311	9	5
Entrance Fees				1,432	14	4
	69	5	11	1,485	17	5
	31	10	0			
	10	10	0			
	<u>1,485</u>	<u>17</u>	<u>5</u>			
				<u>1,485</u>	<u>17</u>	<u>5</u>

(Sgd.) R. L. TURNER,
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We have examined these accounts and checked the vouchers and bank books and we certify that they are correct.
(Sgd.) T. BURROW.
J. A. STEWART.

LIFE SUBSCRIPTION FUND

	£	s.	d.	
To Balance	280	13	11	£
Transfer from General Fund	44	2	9	s.
				d.
	£324	16	8	£
				324
				0
By Investments, £325 3½ per cent War Loan at cost				4
Cash in P.O. Life Fund Account				2
				16
				4
				£324
				16
				8

We have examined these accounts with the bank book and the bank receipts for the certificates, and we certify that they are correct.

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18th February, 1944.

ANNUAL REPORT FOR 1943

During the year 1943 the Society held four ordinary meetings, when papers were read as follows: 26th February, by Dr. W. B. Henning on 'The Disintegration of Avestic Studies'; May 14th, the Anniversary meeting, by Professor C. L. Wrenn on 'The Value of Spelling as Evidence'; 22nd October, by M. A. Mirambel on 'Tenses in Modern Greek with special reference to the Aorist'; 26th November, by Professor W. J. Entwistle on 'The Chronology of Slavonic'. The Society is indebted to the School of Oriental and African Studies for its hospitality on all these occasions.

As Mr. J. R. Firth found that he had still less time available for the editorship of *Transactions*, Professor H. W. Bailey took over this duty for the time being and in May became Publications Secretary. *Transactions*, 1941, was distributed late in the year; since then the 1942 issue has been distributed and that for 1943 has reached the final proof stage, and material for the 1944 issue is being collected; the printing of Dr. Palmer's book has reached an advanced stage.

During the year six ordinary members and five libraries joined the Society; with one resignation, five lapses of membership, and losses by death, the total membership stood at the end of the year at 176, including nine members in enemy or occupied countries.

The Society has lost by death, among others, an Honorary member, the distinguished Danish grammarian, Professor Otto Jespersen, and Mr. Leonard C. Wharton, who was Honorary Secretary from 1915 to 1930.

H. W. BAILEY } *Joint Honorary*
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12th May, 1944.

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(Corrected to April, 1945)

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ASICA

By H. W. BAILEY

THE following pages are intended as a small contribution to the vexed problem of the people called Ās. By means of a selection of linguistic material it is sought to establish that the ancestors of the modern Ās of Ossetia in the Caucasus spoke a language so similar in vocabulary and, in certain significant innovations, in morphology and syntax to the languages of Chorasmia, Sogdiana, the Khotan kingdom, and the modern Pašto of Afghanistan that a period of linguistic contiguity of the Ās with those peoples or some of them must be assumed. Since the earliest Sogdian texts may be dated to about the second century A.D. and the Sarmatian names in Greek inscriptions of the second century A.D. show the peculiar innovations of the modern Ās language (see Max Vasmer, *Iranisches aus Südrussland*, in the Streitberg Festgabe, 1924), at which time the Ās language and the Sogdian had each attained a clear individuality, it will be necessary to place the period of contiguity considerably earlier, perhaps by some centuries. If then we assume that in the third century B.C. the ancestors of the Ās were in contact with Chorasmians, Sogdians and the ancestors of the speakers of Pašto, a reference to the well-known passage of Strabo (book 11, chap. 8, on the Massagetai and Sakai) is inevitable. He stated there in speaking of the Skuthai: *μάλιστα δὲ γνώριμοι γεγόνασι τῶν νομάδων οἱ τοὺς Ἕλληνας ἀφελόμενοι τὴν Βακτριανήν, Ἀσιοὶ καὶ Πασιανοὶ καὶ Τόχαροι καὶ Σακάρουλοι*, 'the best-known of the nomads have been those who took Bactria from the Greeks, Asioi and Pasionoi and Tokharoi and Sakarauloi.' In the Asioi we may see the Asiani of Pompeius Trogus' history (prologus to book 42) *reges Thogarorum Asiani* 'the Asiani, kings of the Thogari'. At about the same period the linguistic evidence would place the ancestors of the Ās in contact with the Sogdians. The conclusions of the historian G. Vernadsky, in spite of some rather unreliable

combinations, that the Ās and the Asioi were the same (*Ancient Russia* (1943) 83-4) would be confirmed by the linguistic material. See also now (for bibliography) O. Maenchen-Helfen, *The Yüeh-chih Problem Re-examined* (JAOS 1945, 81), in which much uncertain is mingled.

A note should be added on Pasianoï, assuming the text to be correct. W. W. Tarn (*Greeks in Bactria and India*, 292 ff.) had occasion to refer to the Pasianoï (equated with the Parsioï) and Parsiana πόλις in Greek sources. He knew of the 'Persian' name and concluded (p. 293) that the Parsioï of Apollodoros, and of Ptolemaios, who placed them in the Paropamisadai, were a branch of the Persian people. But another tribe also seems to have used a name **parsava*. G. Morgenstierne has shown (*Acta Orientalia* 18. 138 ff.) that the name *pašto* very probably continues a word **parsavā* and he has identified this name with the Parsioï, recognizing in them the ancestors of the modern speakers of Pašto. We should then have Asioi and Pasianoï in contiguity, as we can trace connexions between the language of the Ās and the Pašto languages.

The name Ās here used requires a brief explanation. The usual 'Ossete, Ossetic, Ossetia' are derived from a Russianized Georgian word *ovs-et-i* 'land of the Ovs'. This Georgian *Ovs-* corresponds to the Ās, Āš of Muslim sources, the 'Azia, where are the Caspian Gates' of Konstantinos Porphyrogenetos, Old Russian *yas-*, with Russian secondary *y-*, Hungarian *jász* (Gombocz, *Ossetenspiren in Ungarn*, Streitberg Festgabe), Chinese 阿蘇 *A-su* of the Mongol period. Of the thirteenth century travellers Plano Carpini (1245) has *Alani sive Assi* and Rubruquis (1253-4) *Alani sive Aas*. Iosafat Barbaro in the fifteenth century referred to the 'Alans who in their language are called As' (see the full quotations in Yulian Kulakovskij, *Alani*, 1899). The speakers of this Ās language now use the words *Asi* and the adjective *Asiag* of their neighbours the Balkars in Balkaro-Kabardia whence they themselves withdrew comparatively recently (V. Miller, *Ossetinskie Etiudi* III chap. 1; Max

Vasmer, *Die Iranier in Südrussland*). Digor *Asi*, Iron *Asi* is < **āsya-* or possibly **arsya-* (for *-i, -i*, see s.v. *dæsnī*).

I have used *Ās* throughout as nearer to the indigenous name instead of the Russo-Georgian 'Ossetic' but the word Ossetic will be more familiar from its use in Iranian books. The reader may therefore prefer to substitute Ossetic for *Ās* as he reads. L. M. Melikset-Bekov proposed to use *Os* and *Osia* (in *Yugo-Osetia* (1924) p. 252).

The following material is necessarily not exhaustive. Knowledge of Sogdian and Khotanese, still more of Chorasmian, of which some 3,000 words are known but not yet published, is still very incomplete. Similarly Parthian material is only partly published. The Parthians were a subdivision of the *Aparnoi* (*Parnoi*) and it is their language which the Manicheans adopted for their religious mission (see A. Ghilain, *Essai sur la langue parthe* (1939) 8 ff.). It is then an eastern Iranian dialect (rather than Median, as has sometimes been contended, see P. Tedesco, *JAOS* 63 (1943) 153, and contrast W. B. Henning, *BSOS* 10. 501-2), and must be considered in any discussion of Sogdian and the cognate dialects.

The material is arranged alphabetically. The abbreviations will all be familiar to students of things Iranian.

1. *āyūndin*, *āyūst* 'to cover'; *āyūst*, D. *azyunst* 1. adj. covered, 2. sb. storey, room, plur. *ayūstītæ* 'buildings' (translating *οικοδομαί* in Mark 13.1). Further *āyūd*, D. *ayodæ* 1. 'garment,' 2. 'muscle.' Iron *fælīndin*, D. *fælundun* 'to dress, adorn' is derived by G. Morgenstierne (*NTS* 12. 267) < **parigund-*, comparing Ormuṛī *parγūn-* 'to dress'.

Sogd. Bud. *γωδ* (**āyōδ*) 'covering, āvaraṇa' Vim. 15, *py'wnt-* 'to uncover' P 6.83, *ny'wδn* 'garment' VJ 93, *nywnt-* 'to wear' VJ 93, *pty'wδ* 'covering' Dhuta 105, 242; Man. *nywδn* 'garment', *ptywδ-* 'to cover' (Henning, *BBB* 129, 132); Chr. *nywdn-* 'garment', *ptywst-* 'covered' (F. W. K. Muller, *Sogd. Texte* I 16.9, II 92). Khotan. *-gun-*,

-gusta-, in *uysgun-*, **uysgusta-* 'to uncover', *hamgūn-*, *hamgusta-* 'to cover' (BSOS 10. 579), *pajun-*, *pajusta-* 'to cover' (BSOS 8. 132) < **pati-gund-*. Pašto *āyundam*, *āyustəl* 'to dress' (Morg. EVP 9, where Munjānī, Parācī and Ormurī forms are given).

2. *árfæ*, I.D. 'blessing, greeting', adj. *árfayæg* 'blessed', < **ā-fraya-* or **ā-friya-*.

Sogd. ''*pryw* (Letters I 1, III 1, 27); (Bud. *ptβyw* not **pati-fraya-*, Chr. *ptβy* 'honour'); Man. *ptryy* 'honour' (Henning, BBB 132) beside ''*prywn* (Letters V 1, VII 1); Bud. ''*prywn*; Man. ''*frywn*, '*frywn*, MidParth. '*frywn*, MidPers. '*pryn*, NPers. *āfarīn*. On the Khotanese *āvun-*, *aūn-*: *orāta-*, see BSOS 10. 907.

3. *áūazīn*, *aūæst*, D. *aūazun* beside *cūázīn*, *cūazun* 'to dam up', *áūazæn* ID 'sluice'.

Sogd. Bud. ''*w'z* ''*p* 'pond water', Vim. 130; Man. ''*wzyy* 'lake, pond' (Henning, *Sogdica* 51 and Addenda, BSOS 11. 471). Henning compared also Armen. *avazan* 'pond' (cf. BSOS 6. 593), and has also recognized Bud. ''*w'zh* 'lake' in P 9.30 (BSOS 11. 471). In the Persian Geography, *Hudūd al-Ālam* (folio 4a; ed. Minorsky 56, 185) is listed the *āvāzah-i baikand* 'the swamp (*baḫīzah*) of Paikand' of the region of Bukhara.

4. *ælxinc*', D. *ælxiy* 'knot' < **granθya-*. The groups *br* and *gr* developed variously. Thus 1. *br* > *rv*, *arv* 'sky' < **abra-*; 2. *br* > *lv*, *ælvīnin* 'to cut' < **brīn-*; 3. *br* > *rf*, *ærfīg*, D. *ærfug* 'brow' < **bruka-*. Similarly 1. *gr* > *ry*, *æryom*, D. *æryon* 'load' < **grāma-* (Morg. NTS 12. 263); *æryū*, D. *æryēū* 'muscle, vein' < **graiwa-*, cf. Pašto *grēwa*, *grawa* 'collar-bone, collar' < **graiwa-* (Morg. EVP 24), Sogd. Bud. *γryw-* 'body, self'; Man. *γryw* 'self, soul, body' (Henning, BBB 126); Chr. *γryw* with *y* dotted to indicate *ī* not *ē*; V. Miller had thought of comparing Old Indian *kravis-*, which left *e : i* unexplained (GIP, *Ossetisch* 35); *ciry*, D. *ciry* 'sharp' < **tigra-*. 2. *gr* > *ly*, *aly* 'finger-tip' < **agra-*; *æly*, D. *ily*, *ilyæ*, *ælyæ-* 'disgust' with *ælyæd* ID. 'disgust', adj. 'disgusting', *ælyag* ID., *ilyag* D. adj. 'disgusting', *ælydzīnad*,

D. *ælyædzinadæ* 'disgust' < **arg-*, Av. *ærəyant-*, epithet of *daožanha*: Yašt 19. 44 *ærəyata hača dužanha*, and of flies; Sogd. Bud. 'ry'nt (P 2. 235), used in connection with a butcher. E. Benveniste (ad loc.) compared NPers. *aryand*, -*ah* 'angry, greedy' and rendered the Avestan and Sogdian 'greedy'. Probably 'disgusting' would be better. 3. *gr* > *lx* *ælxoi* 'pestle', *ælxui* 'spindle-handle', see below p. 36. The -*nc*' corresponds to D. -*y*, as elsewhere *ndz* to D. *ndz* and *y* in *findz*, D. *findz*, *fy* 'nose', without the nasal *kūdz*, D. *kui*, plur. *kūitæ* beside D. gen. sing. and numerative *kuyyi*, but gen. in *kudzi бага* 'name of a herb'; *ssædz*, D. *insæi* '20'. In Ās the phonematic opposition (familiar in Georgian) between ejective (supraglottal) consonants *k'* (palatalized *č'*) *c' t' p'* and aspirate (subglottal) consonants *k* (*č*) *c t p* replaces the Old Iranian unaspirated *k č t p*. Usually aspiration supervened, but if for any reason, such as final position or a preceding *s*, the aspiration was anticipated, the ejective consonant is found. Hence here *c'* < *θy* in final position, but in *æcæg* < **hathya-ka-* 'true' *c* < *θy*. Old Iranian *an* + consonant is variously modified 1. *anč* > *ānč* > *ondz*: *fondz* '5' < **panča*; 2. *an* > *in*: *fīndtæs*, D. *findtæs* '15', *tīndzin*, D. *itindzun* 'to stretch' < **θanj-*; note also D. *mænki*, *mænk'æi*, *mængæi*, *mengi*, *mink'i*, *mingi* 'small'. The group -*any-* differs, see below under *fæinæ*. For *θy* > *c*, cf. also *xælc*, D. *xūxlcæ* 'food' < **hvar-θya-* (Av. *xvarəθa* 'food') and *balc* 'journey' < **brθyu-* from *bar-* 'to ride'.

Sogd. Bud. *yr'nš* 'bond' Vim. 50, Dhuta 45, 234, 289 < **granθya-* (Morgenstierne apud Henning, BBB 63, < *granθi-*); Yidya-Munjānī *yurəč* 'knot' < **grathya*, Yazg. *γ'rawθ*; Bal. *garanč* < **granθačī*, NPers. (dial.) *γil(a)č* < **grθačī* (Morg. IIFL 2. 213). ZorPahl. *gryh* NPers. *giriθ* 'knot'. Khotan. *grantha-*, *gramtha-*, *grratha* may be borrowed from Sanskr. *grantha-*. For further Iranian connections, see Morg. EVP 27 s.v. *γarəl*.

5. *æncōi*, D. *æncoinæ* 'rest' < **ham-čyān-ya-*; *æncāin*, *æncad*, D. *æncayun* 'to rest, cease'; *æncōn* ID. 'easy, convenient'; *cādæg* 'slow' < **čyāta-* (Morg. NTS 12. 267).

Sogd. Bud. 'nč'nh 'cessation' (Benveniste on P. 2. 131), 'nč'y- 'to cease' (P passim). Av. šāta- 'at rest, happy' ZorPahl. šāt, NPers. šād.

6. ærdū, D. ærdo 'hair' < *drau-.

Sogd. Bud. zw- (O. Hansen, ZII 7. 89, Benveniste, JRAS 1933, 49) with $z < \delta r$. Khotan dro (gen. sing. druai), drauka- (Konow, NTS 11. 55), also plur. drrauta (BSOS 10. 597); drrāva-, dru- in compounds; drrau nauhnā 'on the point of a hair' translating Sanskr. vālāgra- (Suvarṇabhāsa-sūtra, P 3513, 70 r 2 = Khotanese Texts I 247); drrūka- (BSOS 11. 291, no. 16). Ormurī drī (Morg., IIFL 1, 392); NSogd. (Yaγnābī) d'rau (H. Junker, Yaghnōbī-Studien I 128).

7. æryæ D. 'mud, slime' < *graya- or *griya-.

Khotan. grīha- 'clay' (Siddhasāra 152 r 5, v 1, rendering Tib. hjim-pa 'clay') with the -ha suffix which is found also in gūha- 'cow'. Adjective grreña bājināñā (P 2893, 223) 'in a clay(?) vessel' (see BSOS 10. 584). Sogd. Bud. γ'yk-Vim. 25; Man. γryk (Henning, BBB 126); NSogd. (Yaγnābī) γirīk 'dust' (H. Junker, Yaghnōbī-Studien I 9). For ry < gr see above ælxinc'.

8. æxsinæg, D. æxsinængæ 'dove', D. æxsinæg (Pam. 2. 114), ærtæ æxsinægi 'three doves' Pam. 2. 88 < *axšainaka- 'the blue-grey one'.

Khotan. aṣṇai 'dove' (Siddhasāra 17 r 5), aṣṇūha 'dung of dove' (100 r 1). The aṣṣānaka of E 21.16 beside tērauka 'ducks' will be this same word. The aṣṇā tērauka 'doves, ducks' occur together also in P 2025.48.

Elsewhere in Iranian the dove is named from another word of colour: *kapauta 'grey, blue' as in NPers. kabūtar, Munjānī kōwūya (Iran I 151), Sogd. Bud. kpwt'yčh (SCE), NSogd. (Yaγnābī) kapūča.

9. bæl D., ūl (ū = vi), il I. 'upon' < *upari.

Khotan. vīra, later also vī, 'upon' < *upari. Both Ās and Khotan. words are postpositions, in contrast to the prepositions MidPers. 'br, ZorPahl. apar, NPers. bar.

10. bæynæg ID. 'naked' < *bagnaka-, bæyæmvad, bæyævvad, D. bæyænbad, bæyænvad 'barefooted', bæyæmzæng,

bæγæmsar, D. *bæγænzængæ*, *bæγænsar* 'bare-legged, bare-headed', *ron-bæγd* 'without belt', Sogd. Bud. *βγν'k* 'naked' (SCE 385); Chorasmian *βγnyk* (ZDMG 90. 1936 *34*); Khotan. *būnaa-* (sing. *būnai*, plur. *būnā*, translating Sanskr. *nagnāh*, P 3513, 71 v 3) < **bagna-ka-*. Contrast Avestan *maγna-*, Zor. Pahl. *br'hnk*, NPers. *barahnah*. In *-bæγd* I would recognize *-γd* < *-γn-*.

11. **ca-**; **ūa-** before adjectives 'as; so'. In origin these words may be instrumentals with *-a* < *-ā*, as *ta* < **tā* 'but' and *ma* < **mā* 'not'. We find *cācæg dzuris*, *ūācæg dæ k'ona* 'as rightly you speak, so may your hearth be right' (Dict. s.v. *ūācæg*); *ūoi cacægæi zæγun*, *ūacægæi æi mæ læqūæzænæn radtetæ* 'as truly I speak it, so truly give it to my son' (Pam. 2.7, with note 45); *cacæg si koræn*, *ūacæg nin æi ustur xucau xuarzdzinædtæi radtdzænæi* 'As truly I beg it of them, so truly will the great God give us it out of his goodness' (Pam. 2. 137). Similarly *ūancon* 'so easy', *ūanæbæræg* 'so unusual'.

Sogd. Bud. *w'*, *w''* 'so'. Thus *w' δβnz . . . ĕ'n'kw* 'aussi épais que' (P 2.1012); *w'' wyč'wyt . . . AYKZY* 'aussi distinctement que' (P 10.2); *w'p'r'γ'z* 'so excellent' (Dhuta 292). See Benveniste, *Textes sogdiens* p. 182; BSOS 9. 517. My attention was first called to Sogdian *w'* by I. Gershevitch.

12. **cæ-** 'downwards' (Dict. s.v.) preverb, beside which *c-* in *cūazīn*, D. *cūazun* 'to dam up', see above *āūazīn*. Hence *cæværin* 'put', *cævdīsīn* 'show', *cæxsīn* 'wash' beside the verbs *æværin*, *ævdīsīn*, *æxsīn*. It occurs also after other preverbs *acamonīn*, *bacamonīn*, *ærcarazīn* (where V. Miller, GIP *Ossetisch* 84, identified this *-c-* with the preverb *-s-*).

Khotan. *tca-*: *tcabalj-* 'scatter', *gujsabaj-* 'destroy'. Maralbaši Iranian *tsa-*: *tsawarg-* 'break'; Pašto *ca-* in *camləm*, *camlāstəl* 'to lie down' (Morg., EVP 17). Waxī has *ĕrm-*: *ĕræmd-* 'to enter' (Morg., IIFL 2. 518: < **ati-ram-*?). The origin remains uncertain: both *hačā* and *patiš-* have been conjectured. In NSogdian (Yaγnābi) *ĕu-* in *ĕukair-*, *ĕukēr-* 'to fear' corresponds to *pač-* in Sogd. Bud. *pĕkwyr-* 'to fear' (H. Junker, *Yaghñōbī-Studien* I 126).

This *pč-* is derived from **patiš-* in the *Grammaire Sogdienne* II 169. Has **patiša-* become **fša-* and thence passed to **ša-*? Parāčī *pač* 'before' is explained from **patiša-* (Morg., IIFL 1. 278, where also Sogd. *pač-* < **patiš-*). Equally Ās *fiṭdzag, fiṭcag, D. fiṭdzag, fiṭcag* 'first' may represent **pat(i)šāka-* with *i-* umlaut of the first syllable. For the conjectured syncope compare such a change in a preverb as occurs in Khotan. *pra-* (Konow, *Khotansak. Gram.* 66), Pašto *pra-* < **parā* (as *prōt*, fem. *prata* 'fallen' < **parā-pasta-*, Morg. EVP 59).

13. *cærgæs* ID. 'eagle'.

Sogd. Bud. *črks* (Reichelt, Frag. III 28) with *č*, in contrast to ZorPahl. *karkās* (GrBund 97. 3, to which the Pāzand *kargas* corresponds in the Indian Bundahišn), NPers. *kargas* with *k-* as in the Avestan *kahrkāsa-*.

14. *dæsnī*, D. *dæsnī* 'skilled' < **dastyā-*. Final *-i*, D. *-i* < **-ya* is found also in *æfsærmī*, D. *æfsærmī* 'ashamed', *xōli*, D. *xōli* 'food for beasts' < **hvār-ya-*. There has been a secondary replacement of *st* by *sn*. Fluctuation between sibilant and nasal or dental is to be noted, in reverse *sn* > *st* according to Morgenstierne's explanation of *cæst* 'eye' < **čaš(m)n-* (NTS 12. 267). For the voiced group *zd-zn* see under *qæznīg*. Add *-bæyḏ* (see under *bæynæg*) < **bayna-*.

Khotan. *dašta-* 'skilled' < **dastyā-*. Earlier it has been already proposed (*Zoroastrian Problems* 160) to connect this word with the *dašta-* of ZorPahl. *dstwbr *daštaβar* 'doctor', NPers. *dastūr*, MidParth. *dast* 'able' (Andreas-Henning, *Mitteliran. Manichaica* iii 54) rather than directly with *dašta-* 'hand'. The later forms of **dašta-* 'hand' which appears in dialects remote from Old Persian, as in Pašto *lās* 'hand', *lasta* 'handle', induced Morgenstierne (EVP 39) to propose a dissimilation of *z-s* to *d-s*. Does it not seem likely that the existence of the participle **dašta-* 'skilled' of the verbal base *danh-*: *dah-*, Sanskr. *daṃs-*, affected the transmission of **zasta-* 'hand'? A similar case would appear to occur in Khotan. *gyasta-*, *jasta-* 'god, deva' < **yazata-* with *st* in place of *zd* associated with the participle *gyasta-*,

jasta- 'cleansed', whereas the Maralbaši Iranian had *jezda-* (Konow, *Ein neuer Saka-Dialekt* 49).

15. *falæmbulai*, *falæmbulai* (Pam. 2, no. 53) D., *álfambilai* (Dict. s.v. *tavin*), *álfamblai* I. (for Tualon, see below) 'around', frequently as a postposition after a genitive. The alternation *-i* ∞ zero is found elsewhere as in *tibáũ*, *tbaũ* 'name of a mountain', *æfsmærtæi* abl. plur. (Mat. 25. 40), *æfsmær* 1. 'brother', 2. 'of the same womb' (Bouda, *Caucasica* 11. 62); *si* 'horn', D. *siüæ* (< **suüæ?*), *sik'a*, *sk'a*; *zinary*, *znary* 'valuable' (*Bulæmæry* 'The Nightingale', translated from Andersen's Fairy Tales by Æmbælti Cock'o, Vladikavkaz 1912). The *-ai* is here of uncertain origin. The *Ås* diphthong *ai* is from various sources. We have **kāya-* 'heaping up' in the suffixed *-gai*: *iügai*, D. *yeugai* 'one by one', *radgai*, D. *radugai* 'in rows' (see V. Miller, *GIP Ossetisch* 85); but also adjectival 5–8 *mingai cæfi* 'five to eight thousand strokes' (*Fidiüæg* 11–12, 43); *ürzgai* 'like finger-tip' = 'diversified' *zæx ürzgai u*, *kæm qæzdīg kæm mægür* 'the earth is manifold, now rich now poor' (Dict. s.v. *zæx*); plur. *birægæidtæ* 'many', *mingæidtæ* 'in thousands' (Dict. s.vv. and s.v. *centr*); *azmæ azgai* 'yearly' (Dict. s.v. *æxxurst*). In *aik*, D. *aikæ* 'egg', *ai* < **āvyā-*. The same may be conjectured in I. *æmbai* 'companion' < **hambāvyā-*. In the numerals used by herdsmen (see A. Freiman, *Zabitie osetinskie čislitel'nie*, Volume to S. Oldenburg 562) *ævdai* '70', *æstai* '80', *ai* < *-āti*. Possibly *xai* 'share', plur. *xæidtæ*, is < **xāvya* to *xaiün* 'to fall' < **kaf-*, see below *xaiün*. In *falæmbulai* therefore possibly *-ai* < **āvyā-*, beside the suffix *-ai* < **āv* (). This *-ai* is 1. adjectival *üzzaai*, *üozzaai* 'heavy', *üæz* 'weight', 2. adverbial (a) 'like' (passim) *yæ innæ k'uxai* 'like his other hand' (Mat. 12. 13), plur. (Comaq, no. 7) *fid miytaai* 'like thick mists', (b) 'in (a language)' *avestagai* 'in Avestan', *grek'agai* 'in Greek' (*Fidiüæg* 11–12, 65), *evreagai berdenagai æmæ romagai* 'in Hebrew, Greek and Latin' (John 19. 20). This *ai* recalls also the Sogd. Man. *kršn'w* 'beautiful' from *kršn* 'form' (Henning, *BBB* 127). Khotanese has *-au* in *aysdau*, *aysdo* 'child', see under *iræzun*.

Sogdian has also Bud. -'w'k, Man. -'wyy, 1. abstract Bud. s'n'w'k 'invasion' (P 11. 21), Man. δβ'nzq'wyy 'thickness' (Henning, BBB 124), 2. adj. ptpt'yn'w'k 'separated' (SCE 277), pry'w'k yr'nš 'bond of passion' (Dhuta 45). Chorasmian has -'wk abstract: hl'l'wk 'fitness for marriage' (A. Freiman, *Khorezmijskij Yazik*, Zap. Inst. Vostok. 7 (1939)). It is, however, alternatively possible that a case-ending lies behind the -ai, such as, perhaps, the Av. -āi.ā (*ahurāi.ā* Yasna 29. 5).

In the Tualon dialectal translation of St. Chrysostomos' liturgy in Georgian ecclesiastical script which in my copy (1821, without name of author) faces the Georgian original text on the opposite page the following passage occurs. In Psalm 34 the Greek παρεμβαλεῖ ἄγγελος Κυρίου κύκλω τῶν φοβουμένων αὐτόν is rendered into Georgian by *daibanak' ebs*¹ *Angelosi Uwplisa garemos mošišta mista*. Thence the Tualon has *arbənat' k'anjan xič'awə zad salp'alamblai umei t'arsgit'an*. Greek παρεμβαλεῖ is rendered by a denominative verb from *banak'* - 'camp' (as Armen. *banak* (ed. Venice 163) renders παρεμβολή in the Kallisthenes' *Romance of Alexander*, ed. Kroll 125) and by Tualon *bənat'* (Iron *bīnat*, D. *bunūat*), while κύκλω is given by *garemos* 'around' and hence Tualon *alp'alamblai* (in which *l* survives after *p'*). To express *περι alfamblai* is common in the New Testament (Mat. 8. 18, Mark 3. 8; 4. 10, Luke 13. 8). It is adj. in Luke 4. 14.

With this word *faləmbulai* 'around, κύκλω' which has little appearance of being in origin Iranian it is possible in view of the clear connection of Ās with the languages of Sogdiana and Khotan to compare a Central Asian word in the documents in Kharoṣṭhī script from the Niya site.² Here we find in document no. 415 *parabulade* (-ade abl. sing.), and in no. 586 *paraṃpulaṃmi* (loc. sing.). From the contexts Professor F. W. Thomas showed that the source of this word was almost certainly Greek παρεμβολή 'enclosure, camp'

¹ In transliteration of Georgian I use *k' t' p' c' ḡ'* for the ejectives (supraglottals), but leave the aspirates (subglottals) unmarked *k t p c ḡ*. For Tualon I have indicated the aspirates *k' t' p'*, since *p'* stands for *f*.

² *Kharoṣṭhī Inscriptions discovered by Sir Aurel Stein in Chinese Turkestan*, ed. by Boyer, Rapson, Senart, and Noble (1929).

(Acta Orientalia 14. 109–111). T. Burrow in his translation has not rendered the word (*Translation of the Kharoṣṭhī Documents from Chinese Turkestan*, 1940), but I agree with Professor Thomas that there can be little doubt of its origin in Greek *παρεμβολή*. This word *falæmbulai* then shows the Ās in direct contact with a loanword otherwise only preserved for us in the Taklamakan desert. Naturally the word may have existed also in other languages of the Sogdian region.

16. **fat** ‘arrow’ I., ‘arrow, bullet’ D., *fatdon* ‘quiver’. The words occur in the Nart tales, which however have also been modernized by the introduction of the gun (*top*) to replace the earlier bow.

Sogd. Bud. *p’δδ-* (**pāθ-*). R. Gauthiot recognized in this word NSogd. (Yaγnābī) *pāt* (*Gram. Sogd.* I 141; H. Junker, *Yaghnōbī-Studien* I 128 has *pō·t*, *pō·s*), and Henning referred (*Sogdica* 40 and Addenda) to the other dialect forms in the Pamirs. See also Morgenstierne (*Notes on Shughni*, NTS 1. 65) for Šuγnī *puδ*, Rōšani *pāθ*, Yazg. *pēθ*, and Zarubin (Iran I 164) who has Munjānī *pūč* ‘arrow’ with other dialect forms.

17. **faz**, D. *fazæ* ‘back part, shank’ < **fāza-* or **pāza-*. Morgenstierne hesitatingly compared Waxī *pūz* ‘breast’, and from other Pamir dialects Sarikoli *puz*, *poz*, with Khowar loanword *pāz*, Yidya *fiz* (IIFL 2. 536). With this *faz* probably belongs *ūvazig*, D. *yeūvazug* ‘separate, to one side, simple’.

Khotan. *phajsā-* occurs in one passage (E 23. 145) in the description of a horse. It is mentioned after ‘head’ and ‘back’: *phajsai kāde uysnāta balysga* ‘his *phajsā-* is much raised, high’. The Khotan. *js* is ambiguous. In *mījsā* ‘marrow’ it is < *zgy*: **mazgya-*, but in *āljsata-* ‘silver’ *z*: < **arzata-*. Hence *phajsā-* < **pazgy-* or **paz-* (or with *f-*). If there is a connection between *faz* and *phajsā-* the difference in vowel length *a* — *ā* could be compared with Ās *sær* ‘head’ beside *-sar* in D. *bæγænsar* ‘bareheaded’, NPers. *sar* ‘head’ and *nīgūnsār* ‘with bent head’; or *rad*, D. *radæ* ‘row, series’ beside MidPers. *rdg* (BSOS 9. 87), NPers. *radah*.

18. **fædg**, *fætk*, D. *fædgæ*, *fætkæ* ‘law, custom, injunction,

tribute'. The verbal forms *fætjī'*, *fætč'i*, imperfect *fædjī'di*, fut. *fætjen*, D. *fædgui* 'it is fitting' and the adjective *fædjiag*, D. *fædgūag*, *fædgag* 'befitting' may be explained as originally the sb. *fædg* with the substantive verb *un* in close contact. For the verbal form cf. *fæūi*, D. *fæui*. To the secondary verbal form *fætjī-* and *fædgū-* the suffix *-ag* was then added. The same explanation is needed for D. *fændun*; pret. *fændadtæi* 'it pleased', compounded of *fændæ* and *un*.

Sogd. Bud. *pδkh*, oblique *pδkyh* translating Sanskr. *dharma* 'law', but used also for *dharma* 'element (philosophical)'; Man. *pδk* 'law, duty, rite'; Chr. *pdg* 'law-suit' Mat. 5. 40 (Henning, BBB 31, Lentz-Müller, *Sogd. Texte* II 103); possibly Ormurī *padak* postposition 'like' (Morg. IIFL 1. 403). The proposal in A. von Gabain and Rachmati, *Türkische Turfan-Texte* 6. 72, and A. von Gabain, *Alltürkische Grammatik* 304 to trace in this Sogdian word the source of Turkish *bitkâci* 'scribe', ultimately also Manchu *bitxe* 'book', and to derive both from Syriac *ptq'*, *ptq'* 'tabula', which renders Greek *πιττάκιον* 'writing-tablet' is acceptable. A similar fate befell another Greek word *νόμος* which through Sogdian *nōm* 'religious book' was widely extended in Central Asia into Uigur Turkish and Mongol, and beyond into Samoyede, see Kai Donner, *Über Soghdisch nōm "Gesetz" und Samojedisch nom "Himmel, Gott"*, in *Studia Orientalia* dedicated to Knut Tallqvist, 1925.

19. *fæinæ* ID. 'each, separately; different', *fæinærdæm*, D. *fæinerdæmæ* 'to all sides'; *fæinæ farsirdigæi* 'on either side' (John 19. 18), *fæinæ yuni* 'for each fleece' (Pam. 2. 147), *fæinæ kustemi* 'on different work' (Pam. 2. 114) with the numerative ending, *fæinæ sirei* (*siremi*) 'each on a seat' (Pam. 2. 114). In Pam. 2. 15 occurs *fæinæn*. The word may be derived < **patina-*, as we find *fæ-* < **pati-*. The development has been **pati* > **pai̇* > *fæi̇-*, whence before a following consonant two treatments are found: 1. *i̇* preserved as in *fæinæ* ID., cf. the treatment of *i̇* resulting from umlaut in *xūinīn* I. (with *i*, not *i̇*) 'be called' < **hvan-ya-*, or 2. assimilated to the following consonant, cf. similarly *xunnun* D. 'be

called', *zinnun* D. 'appear', *zinnin* (V. Miller, GIP *Ossetisch* 65), *ziniñ* (Dict.) I. < *zan-ya-; *k'ánnæg* (whence *k'anæg*) I. 'small' < *kanya-ka, see below; *ánnæ*, *innæ* 'other' (with *i*) < *anya-. The second case arises with the preverb **pati-* > **pai-*. In Digor *fæ-* is followed by a doubled consonant (as stated by the Dict. s.v. *fæ-*): *fæccæun* 'to go'. The Dictionary does not recognize this doubling in Iron: *fæccæün*, but it is given by V. Miller (GIP *Ossetisch* 83): *fæccidī* 'he went'. This same assimilation explains *fæzzæg* ID. 'autumn' < **paizag-* < **patizaka-* compared with Sogd. Man. *ptyz* 'autumn' (Lentz-Waldschmidt, *Dogmatik* 70, Henning, BBB 133); in ZorPahl. *p'tyc* **pātīz*, NPers. *pāiz* the result has been a lengthened vowel. The Iron *zæx* 'earth', ablat. *zæxxæi*, adjectival *zæxxon* (D. *zænxæ* with secondary *n*) should be traced to **zaiix* < **zāi-xa-* and compared with Sogd. Bud. *z'yh*; Man. *z'y* **zāy* 'earth'.

Sogd. Bud. *pt'yn* 'separately', *pt'yn pt'yn* (SCE 67), *ptpt'yn* 'separately' (P 10. 27), adj. *ptpt'yn'w'k* 'separated' (SCE 277), *ptpt'yn'čwy* (Dhuta 34), see Benveniste, JRAS 1933. 57; Sogd. Man. *ptyyn* (Henning, BBB 58).

Khotan. *pana-* 'each' inflected (sing. E; once plural P 2739. 41 *pañvā kṣṛā bāḍvā* 'at all six times'). As a preverb **pati-* becomes *pa-* in Khotanese, often followed by palatalization, hence *pa-* < **pai* < **pati*.

Avestan *paitina-* 'separate', adjectival from *pati-*. For the distributive use cf. Sanskr. *pratidinam* 'every day'.

20. *færæt* ID. 'axe', translates *ἀξίῃν* Mat. 3. 10.

Khotan. *paḍa-* 'axe' (= Tib. *sta-re*) in the Sanghāṭa-sūtra 82a 1, 5 may represent **parta-* or **parata-* (cf. *gyasta-* < **yazata-*).

Agnean *porat*, Kuchean *peret* 'axe'. E. Lidén (*Studien zur tocharischen Sprachgeschichte* (1916) 16-17) derived *færæt* and the Agnean and Kuchean words from Old Persian **paraθu-*, corresponding to Sanskr. *paraśu-* (OPers. *θ* = Sanskr. *ś*), but possibly in view of Morgenstierne's discussion of Indo-European *k* (see *Indo-European k in Kafiri*,

NTS 13. 225 ff.) a more direct connection with **parat'u*- would be possible.

21. *fæzdæg* I. 'smoke'.

Sogd. Bud. *pzt*- 'smoke', see Benveniste on P 3. 178, where NSogd. (Yaγnābī) *pazd* and Ās *fæzdæg* are quoted.

Av. *pazdaya*- 'to drive away'; MidParth. *n'ypzd* 'flute-player' (Henning, BBB 112).

22. *qæŭ*, D. *γæŭ* 'village' < **gava*-; adj. *qæŭŭon*, *γæŭŭon*. ZorPahl. *gwpt*, *gwkpt* **gōpat*, used as title of a chief in Sogdiana (see BSOS 6. 951), seems to represent **gava-pati*- 'lord of the *gava(s)*'. That is the Avestan *gava*- in Vidēvdāt 1. 4 *gāum yim suγdō.šayanəm* 'the *gava* inhabited by the Sugda (Sogdians)'. A word *gava*- occurs also in the two Avestan compounds *gava-šayana*- and *gava-šiti*- and if we explain these words to mean 'dwelling in villages' with *gava*-corresponding to Ās *γæŭ*, a good interpretation is won. This *gava*- in turn may mean originally 'cattle-station' whence the 'village' is derived. V. Miller, IF 21, no 31, similarly. C. Bartholomae had assumed *gav*- 'cow' as the first part of the Avestan compounds (*Altiran. Wörterbuch* s.vv.).

23. *qæun*, *qūd*, D. *γæun* 'to be needed' < **gav*-; *qavn*, D. *γavn* 'to decrease' trans. < **gāv*-.

Sogd. Bud. *γw*- (P passim) 'to need, be necessary', *γw'n* 'sin'; Man. *γw*-, *γw'n* 'sin' (Henning, BBB 126). Chorasmian *γw'c* **γawāts* 3 sing. conj. (A. Freiman, *Khorezmijskij Yazik*, Zap. Inst. Vost. 7) Kaj Barr has pointed to a probable survival of this base **gav*- in the Central Persian dialects, as Gazi *gū* 'it is necessary', pret. *gā* (*Iranische Dialektaufzeichnungen* 497).

24. *qæz*, D. *qæzæ* 'reed' (Pam. 2. 133) < **gaza*-. The *q*- in both dialects is unusual for Old Iran. *g*-. It can be quoted in *qain*, D. *qayun* = NPers. *gādan*. It appears more naturally after *s* in D. *ŭesqædæ* 'maple' beside *ŭesγædæ*, 1. *ŭisqæd*. In *qamīl*, D. *qamīl* 'reed' the same *q*-*q* occurs.

Khotan. *gaysa*- 'reed' translates Sanskr. *naḍa* (Siddhasāra 14 v 4), but NPers. *gaz* 'tamarisk, measuring yard, a kind of arrow'. Pašto *γōza* 'firewood' (Morg. IIFL 2. 424).

25. *qæznig*, *qæzdig*, D. *γæzdug* 'rich'. Both *zn* and *zd* are given in sing. and plur. (Dict. s.v.). Kubaltī Aleksandr, *Æfxærdtī Xæsanæ* (ed. Baiev-Lentz, *Ein Heldenepos des ossetischen Dichters Alexander Kubalov* 1934) has *qæznigdzinad* (l. 8) 'riches' beside *qæzdig* (l. 10) 'rich'. Digor *bæzdæ* 'thickness' beside I. *bæzn* and D. *bæznag* 'thick' has probably *zd* < *zn*, rather than *-dæ* < **tā-* (see below *-tæ*). For *qæznig* an obvious etymology is from **gazna-* 'treasure' < older **ganza-*, with the *-ug* suffix as in D. *ædonug* 'thirsty', D. *ūindtug* 'visible'.

Sogd. *γzn* **γazn* (see Benveniste, JA 1935. 1. 141; 1936. 1. 227); Man. *γznyy*. Add Uigur Turkish *qiznaq* 'treasury' < **γaznak* (F. W. K. Müller, *Uigurica* II 76 l. 2). B. Laufer (*Sino-Iranica* 359) quoted a botanical text of about A.D. 860 with the place-name in Afghanistan 伽闍那 (medieval 那) *k'ie-sə-na* < **g'ia-ziā-na* (Karlgren, *Analytic Dictionary of Sino-Japanese* 342, 647) and in the T'ang History (Chavannes, *Documents sur les Tou-kiue occidentaux* 160) 鶴悉那 Karlgren 74, 782, 647 *xo-si-na* < **γāk-siēt-na*.

The Niya Kharoṣṭhī documents have *gamñi* (*mñ* < *ññ* < *ñj*) and *kañi* 'treasure' beside *gamñavara* 'treasurer' (T. Burrow, BSOS 7. 510).

With this explanation from **gazna-*, it becomes easier to accept a connection between *Ās qæzdig* and Hungarian (old) *kazdag*, (new) *gazdag* 'rich' (H. Sköld, *Die ossetischen Lehnwörter im Ungarischen* 22, G. Schmidt, *Zur frage der ossetisch-ungarischen lehnwörter* 93).

26. *i* D. proclitic 'the'. In Iron the former presence of a proclitic **i* is attested by the shift of the accent to the initial syllable of the following word, see the Dictionary II, preface p. III, and V. I. Abaiev, *Ob udarenii v osetinskom yazike*, Dokladi Akad. Nauk 1924.

The use of Digor *i* can be illustrated from frequent occurrences.

(1) Before noun, indifferent to case and number:—

Nom. *i bæx* 'the horse' (Dig. Skaz. 4), *i nartæ* 'the Narts' (Pam. 2. 52); acc. *i fiyyaūi* 'the shepherd' (Pam. 2. 10);

Dat. *i doræn* 'the stone' (Pam. 2. 10), *i xestæræn* 'to the eldest' (Pam. 2. 14); abl. *i k'ædzææxi* 'from the cliff' (Pam. 2. 11), *i fonsæi* 'from the cattle' (Dig. Skaz. 20, quoted GIP *Ossetisch* 43); loc. *i xædzari* 'in the house' (Dig. Skaz. 49), *i buduri* 'in the field' (Pam. 2. 137, no. 58); Superess. *i xedbæl* 'on the bridge' (Pam. 2. 83); Allat. *i mæslugmæ* 'to the tower' (Pam. 2. 83, 84), *i bælasæmæ* 'to the tree' (Pam. 2. 6), *i ūosæmæ* 'to the woman' (Pam. 2. 8), *i mardmæ* 'to the dead' (Pam. 2. 9). Plural: *i bandtæ* 'the days' (Pam. 2. 10), *i xæznatæ* 'the treasures' (Pam. 2. 53), *i kizgudtæmæ* 'to the maidens' (Pam. 2. 84), *i æfsædtæ* 'the armies' (Pam. 2. 83), *i fædtæbæl* 'on the footsteps' (Pam. 2. 11), *i kizgudtæi* 'from the maidens' (Pam. 2. 147), *i kæstærtæn* 'to the younger ones' (Pam. 2. 151).

(2) Before adjective with noun:—

i kæstær Æxsaræ 'the elder Æxsaræ' (Pam. 2. 5), *i tar æxsævi* 'the dark night' (Pam. 2. 83); *i ūors æxsir* 'the white milk' (Pam. 2. 156); *i boræ nælfus* 'the yellow ram' (Pam. 2. 155).

(3) Before adjective alone:—

i xestær 'the elder' (Pam. 2. 14), *i kæstær* 'the younger' (Pam. 2. 84).

4. Between adjective and noun:—

xūarz i ūasgergi 'the good St. George' (Pam. 2. 139, no. 65), *ustur i nartmæ* 'to the great Narts' (Pam. 2. 5).

5. Before numeral:—

i duūæ mugkagi 'the two families' (Pam. 2. 5), *i duūæ luxi* 'the two pieces' (Pam. 2. 9), *i duūæ ūosæi* 'from the two women' (Pam. 2. 9), *i avdei* 'of the seven' (Pam. 2. 13), *i avd ærvademæn* 'to the seven brothers' (Pam. 2. 83).

(6) With intervening genitive:—

i togi ærtæx 'the drop of blood' (Pam. 2. 6), *i kizgi dzigkotæi* 'from the girl's locks' (Pam. 2. 9), *i kizgi dzurdæx* 'the girl's words' (Pam. 2. 84), *i γæūi særi* 'above the village' (Pam. 2. 83), *i ūobayi xulfi* 'in the interior of the tomb' (Pam. 2. 9), *i lægæti dūar* 'the gate of the hut', superess. *i lægæti dūarbæl* (Pam. 2. 13, 14).

(7) With anticipatory dative :—

i fyaüæn æ fustæ 'the shepherd's cattle' (V. Miller, *Osset. Etiüdi* 92), *i xænæn ba æ kizgæ* 'but the Khan's girl' (Pam. 2. 6).

(8) With 'and' :—

i læg æma i üosæ dzoruncæ 'the man and the woman say' (Pam. 2. 57), *i dalis æma i bairag ma ærtigkag anz isxasta* 'he reared the lamb and the foal the third year' (Pam. 2. 98), *i madæ ma i fidæ* 'the mother and the father' (Pam. 2. 93).

The resemblance of Digor *i* 'the' to the Sogdian *yw* 'the' is strikingly shown by the following occurrences (taken from Benveniste's note JA 1936. 1. 216 ff. and *Textes Sogdiens* 201).

(1) Before noun :—

yw wrtn 'the car' (Vim. 64); plural *yw pwt'yšt* 'the Buddhas' (Vim. 104), *yw w'tδ'r šm'r'nt* 'the beings think' (P 2. 56).

(2) Before adjective and noun :—

yw wytwytk rwδ 'the molten brass' (Reichelt, *Frag.* II 15), *yw mrtym'k CWRH* 'the human body' (P 6. 69); plural *yw r'δēt mrtym'tt* 'the men on the road' (SCE 527).

(3) Before noun and pronominal adjective :—

yw yr'm'k wyspw 'the whole riches' (Reichelt, *Frag.* II a 21).

(4) Before adjective alone :—

yw ny'zkynt 'the poor' Vim. 160; *yw γw'r'nt* 'the right one' (O¹ 5).

(5) With intervening genitive and phrase :—

yw drm'yk δβry' tys 'the entrance to the dharma-gate' (Vim. 205), *yw pwt'y ptβr'w s'm'r* 'the samādhi of the Buddha's remembrance' (Dhyāna 375), *yw βγ'n βγtm pwt'y* 'the Buddha most godlike of gods' (P 2. 1119).

(6) With 'and' :—

yw ''zwh ZY yp'k 'desire and anger' (P 5. 108), *yw CWRH ZY tnp'r* 'the body and body' (P 6. 92).

(7) With preceding demonstrative *γyδ yw pwt'yšt* 'these Buddhas' (Dhyāna 347).

To this *y-* in Sogdian other derivatives have been traced as *ywn'k*, *y'n'kh*, *y'ntt*, which are not considered here.

Chorasmian has آی 'y (masc.) and یا 'y' (fem.) 'the'. The pronunciation is not certain since either ĩ or ĩ̄ and ya or yā seem possible, but in monosyllables an old long final vowel -ā may have survived. The forms are quoted by A. Freiman (*Khorezmijskij Yazik* 315). For the comparison of Chorasmian 'y without -w with Sogd. Bud. yw , cf. also Chorasmian آز آز az āz yāz 'I' beside Sogd. Bud. 'zw (Henning, ZDMG 90 (1936) *32*, Freiman, *Khorezmijskij Yazik* 315). Chorasmian 'y' appears to be derived from an Old Iranian *yā.

The similarity in the use of Ās i , Sogd. Bud. yw , Chorasmian 'y, y' to that of ya- in the Avesta is at once piquant. The following examples and others are given in Reichelt, *Awestisches Elementarbuch* 370-1.

Yašt 8. 21 $\text{ā dim bavaiti aiwi.vanyā daēvō yō apaošō tištrīm raēvantəm x}^{\text{v}}\text{arənamuhantəm}$ 'the demon Apaoša overcomes the wealthy fortunate Tištrya'.

Yasna 8. 28 $\text{ā dim bavaiti aiwi.vanyā tištryō raēvā x}^{\text{v}}\text{arənamuhā daēum yim apaošəm}$ 'Tištrya, the wealthy the fortunate, overcomes the demon Apaoša'.

Yasna 30. 5 (Gāthā) $\text{ayā mainivā varatā yō drəgvā ačīštā vərəzyō}$ 'of those two spirits the holder of deceit chose doing the worst'.

Yasna 45. 2 (Gāthā) $\text{yayā spanyā ūiti mravaṭ yəm angrəm}$ 'of whom the more beneficent so spoke to the destructive one'.


Yašt 5. 25 $\text{təm yazata yō yimō xšaētō hvəθwō}$ 'him worshipped the glorious Yama, the herdsman'.

Yasna 9. 8 $\text{druṣim frača kərəntaṭ anrō mainyuš aoi yəm astvaitīm gaēθəm}$ 'the destructive spirit fashioned out the Druž against the embodied world'.

Yasna 46.3 (Gāthā) $\text{kadā mazdā yōi uxšānō asnaṃ anhəuš darəθrāi frō ašahyā frārəntē}$
 'when, O Mazdāh, shall the children (?)¹ of the days (?) advance for the maintenance of the world of Right ?'

¹ If uxšān- means 'growing one'; it might also mean 'shining one'. Is asnaṃ equivalent to * āsanəṃ 'of the nobles' ?

Vidēvdāt 15. 9 *mā nō aēša yā kaine mašyānəm parō fšarēmāt tarō daxštəm pārayāt tarō apəmča urvarəmča* 'Let not the girl before men for shame remove the daxšta, remove the water and plant'. It is clear that in both Gathic and later Avestan the relative use of *ya-* has yielded to its use as definite article, with which in *aēša yā kaine* 'this girl' a demonstrative is combined as we find regularly in Greek οὗτος ὁ ἀνὴρ 'this man'. The Sogdian usage in γϣδ *yw pwt'yšt* (Dhyāna 347) 'these Buddhas' is the same.

From this articular use the relative construction of MidPers. *ī*, *īγ*, ZorPahl. *ī*, NPers. *ī* is quite distinct. The relative use of this *ī* is an old use of *ya-* conserved, whereas the use of *ya-* as definite article is an innovation. The difference of development accentuates still more the remarkable concordance of Ās, Sogdian, Chorasmian, and Avestan. Details of the relative use of *ī* are given by P. Tedesco (*Dialektologie der Westiranischen Turfantexte*, Monde oriental 15). The particular NPers. *ī ki* construction would require a lengthy discussion in connection with the developed use of *ki* in NPers. and its antecedents in ZorPahlavi. It may be said here that the *ī* of *ī ki* was probably originally the relative *ya-* to which *ki* has been superimposed, as we find *ēūn* beside *ēūnki*, ZorPahl. *čēgōn* beside *čēgōn 'kad*  (Vidēvdāt 21. 4), *čēgōn 'kad-aš*, *čēgōn 'kē* (Vid. 8. 86).

Clearly the evidence for the origin of Ās *i* < **ya-*, Chorasmian *ī* < **yah*, *y'* < **yā*, and Sogd. Bud. *yw* < **yam* is of importance. The use in each language is alone sufficient to incline the balance to this side. Add that in Sogd. Bud. *yw* has no alternative form with initial alif, unlike *'mw-* beside *mw-* < **ima-*, and this too would incline one to doubt any connection with Old Iranian **iyam* (as was proposed by Benveniste, JA 1936. 1. 218) or with **ayam*. It may be added that V. Miller tried to find the *ay-* of **ayam* in Digor *yeyæ*, *ye* 'that one', but saw *ya-* in the Ās pronouns Dat. *in* and the rest (GIP *Ossetisch* 52). To be compared with Digor *i* < *ya-* with loss of the vowel is *æz* 'I' < **azam*, in contrast with Sogd. Bud. *'zw* with *-w* < *-am*.

The possibility that *ya-* 'the' may exist unnoticed in Khotanese is suggested by the word *ī* P 2783. 30-31 (BSOS 10. 374) *u haṃdarye ī khari tsvā* 'and she went to the (?) other ass'. I had in a note on the passage tried to find a word *ī* 'one', for which the regular word is *śśau*. But in this *ī* possibly the article should be seen or failing that the enclitic pronoun *-ī*. Previously *-ī* has always been found attached to the preceding word coalescing with a vowel or with *-y-* *-t-* or *-v-* between (see BSOS 10. 572). The problem, however, cannot be treated here.

A reference should come here to the use of *Ās a*. As a pronoun this word is given by V. Miller (GIP *Ossetisch* 53): *a* 'this', but for the use before a noun he prescribes the form with *-ci*, I. *aci*. The dictionary has *áci*, D. *aci* 'this' beside *úci*, D. *yeci* 'that'. In Pam. 2. 94 is found *úoci mary tu p̄ticu*, 'that bird'. In pronominal use occurs *a ba ūæxæn ūodzænæi* 'it will be such' (Pam. 2. 150, 151), but we have also *a γæŷi* (Pam. 2. 88) translated '*v etom sele*, in this village', *a zænææbæl* 'na zemle, on the earth' (Pam. 2. 118), and *a duŷæ xestæri dær kurd æncæ, fal a kæstær ba dæŷæn lævard adtæi* 'the two elder are affianced, but the younger was given to you' (Pam. 2. 93). The translation has *obe starsie* 'both the elder'. In the preceding paragraph *i kæstær* was used. In a compound we have *ábon*, D. *aboni* 'to-day', with adjectival derivative *ábonigkon*, D. *abonigkon* 'of to-day'. Hence two uses are attested: pronominal adjective and definite article. In connection with D. *yeci* it should be noted that it is rendered in *yeci ses* by '*eto pero*, this feather', *yeci sabiy* 'of this boy', but *yeci anz* '*v tot god*, that year' (Pam. 2. 94, 95, 146). The Dictionary has '*tot*, that'.

27. *iræzun* D., *ræzin* I., beside *-iræzin* in compounds, as *áiræzin*, 'to grow'; *iræz* D., *ræz* I. 'growth', *ræzæn* I. 'growing organism, child' (Dict. s.v. *xizîn*): *iræz-* < **vi-raz-*.

Khotan. *alysānaa-* 'youth' renders Sanskr. *kumārabhūta* 'youth', the epithet of Manjuśrī. So Kha 1. 13, 144 v 4 *maṃñūsṛī alysānei*, G 3 b 4 (instr.) *maṃjuśṛīna alysānaina* 'the youth Manjuśrī'. That in Central Asia this was the

Buddhist interpretation of *kumārabhūta* we know from the Chinese translation 童子 *t'ung-tsi* 'boy' and the Tibetan *g'zon-nu* 'youth', whence also came the Mongol *jalaγu* 'youth'. Subsequently the word *alysānaa-* 'youth' translating *kumāra-* was given the secondary meaning of *kumāra* namely 'prince'. (The Spanish use of *Infante* 'infant, prince' from Latin *infans puer* 'boy not yet able to speak' is similar.) There is, however, other evidence for the meaning of *alysānaa-*. In P 2834 the story is told of the merchant Nanda. His wife bore a child to him: (l. 32) *daha tvaradāna dyena śakalaka pūra ysā* 'she bore a male, a son exceedingly good to look upon', then (ll. 33-4) occurs the statement *tta ra khū šī 'eysānai vāṣṭa hūṣā mistā hamye* 'then when this boy (*alysānaa-*) had grown and was adult'. In form *alysānaa-* is an adjectival derivative in *-ka* from the middle participle *-āna* (on which see Konow, *Saka Studies* 58 and *Khotansak. Gram.* 60), hence **arzāna-ka-*. The base *arz-* 'grow' is to be compared with the *raz-* of Ās *iræz-*, and the relationship may be explained as that which separates Avestan *ərəzata-*, OPers. *ardata-*, Khotan. *āljsata-* 'silver' from Sanskr. *rajata-*. Earlier (BSOS 9. 75) Khotan. *aysdau, aysdo* 'child' (rendering Sanskr. *bāla* in Siddhasāra 6 v 5, 7 r 3, 7 r 1) was quoted, where also a derivative of *arz-* 'grow' is probably preserved (on the *-au*, cf. above under, *falæmbulai*). For the presence of *vi-*, cf. *qal* (*-iqal* with preverb: *aiqal*), D. *iyal* 1. 'awake', 2. 'awaking' with Sogd. Bud. *γ'r-* 'to watch over' (P 11. 17, 26). NSogd. (Yaγnābī) *γar-*: *γōrt* 'to look at'.

NPers. *raz* 'vineyard' has a different, specific, meaning (on which see P. Tedesco, JAOS 63 (1943) 151 ff.).

28. *iūarun* D., *ūārīn* I. 'divide, share' < **vi-vār-*.

Khotan. *gvar-* (*gvīr-*, *gver-*): *gūda* 'impart, tell' < **vi-vār-*; *gvāra* 'matter of business' (BSOS 8. 123, Konow, NTS 11. 49). Add Ch 00266. 206 *raṣṭa ma pyatsa gvera* 'tell it correctly before me'.

29. *k'ānnæg*, *k'anæg* I. 'small', comparative *k'ādtær*, *k'āddær* (Dict. s.v. *xiary*), < **kanya-ka-*. For *-ann-*, *-an-*

< **-any-*, see above *fæinæ*, and for *k'* ejective see above *ælxinc'*.

Khotan. *kanaiska* 'little finger' ('the little one'), see JRAS 1942. 250. Munjānī *kāndir*, *kandər* 'smallest, youngest', *kandərə*, *kāndir āguškikā* 'little finger'.

More specialized in meaning are Av. *kainyā-*, *kainī-*, *kainīn-* 'girl'; Sogd. Man. *qnčk* 'boy', *qnčyy*, *knčy*, *knčyk* 'girl' (Henning, BBB 101); ZorPahl. *kančk*, *kanččak*, MidPers. *knyg*, *qnyčg*, MidParth. *qnyyg* 'girl' (Andreas-Henning, *Mitteliran. Manichaica* II 58, III 57); NPers. *kanīzah* 'girl'. So also in Pašto *ndzəl* 'girl' according to Morgenstierne's elaborate interpretation (NTS 12. 98). To this group belongs Ās *čindz*, D. *kindzæ* 'daughter-in-law', if *-anč-* > *indz*, see on *ælxinc'* above.

30. *kæf*, plur. *kæfté* ID., 'fish', used of fish in the sea: Mark 1. 16 *kæf-axsšitæ* 'fishers', John 21. 10 *ci kæftæ ærcaxstat* 'what fish you have caught', beside *kæšag* in John 21. 3 *kæšag axsšimæ* 'to catch fish'.

Sogd. Bud. *kp-*, plur. *kp'yšt*; Man. Chr. *qp-*; Pašto *kab*, Waziri *kab* 'fish', *kabə* 'eel' (< **kapiya-*, Morg. EVP 31, NTS 12. 93); Munjānī *kap* (Morg. IIFL 2. 218 with other dialect forms), Waxī *kūp* (Morg. EVP 31).

Khotan. *kava-* 'fish', adj. *kavīnaa-*.

J. Charpentier put together what he had been able to find on *kæf* in *Monde Oriental* 18 (1924), and K. Bouda (*Caucasica* 11. 60) has, after Schiefner, compared *kæf* with Hürkan *γavš* and Lak *h'aba*, with which, however, it would require a long dissertation to prove a connection, if any exists.

31. *kænt* 'building', quoted in the Dictionary from the earlier (1864) translation of the gospels from Mark 13. 1; Morgenstierne, who has also recognized the word (NTS 12, 267), could thence quote the plural *kæntitæ* (not available to me), < **kanthā-*.

Sogd. Bud. *knδh*, Chr. *knč*, *kt*; Pašto *kandai* (Morg. EVP 32, NTS 12. 267); Khotan. *kanthā-*. NPers. *kand* 'village' will be a loan-word to be classed with other Sogdian words

in Persian (see Henning, BSOS 10. 93 ff.). J. Charpentier (Monde Oriental 18. 1 ff.) treated of Sanskr. *kanthā*.

32. *kæśág*, D. *kæśalgæ* 'fish'; John 21. 3 *kæśag axsinmæ* 'to catch fish'.

Pašto Wanëtsi *kəžə* (fem.), plur. *kəžé* 'fish' (Morg. NTS 4, 168) with *ž* < Indo-Eur. **ks*. If the Georgian *kašaq-i* 'herring' is related, the borrowing must be from Iranian. The *-lg-* of the Digor word is isolated: it would be possible to compare the intrusive *-n-* of such a word as *æxsinængæ* as given above.

33. *kūnæg*, D. *kunæg* 'small' < **kavna-*.

Sogd. Bud. *kβn-*; Man. *qβn-*, *kβn-*; Chr. *qbnq* 'little'; Pašto *kōnkai* 'small' *kōn-* < **kabna-* (Morg. EVP 33, NTS 12. 267). The *β* > *v* contrasts with Av. *kamna-*, *kambišta-*, MidPers. *qmb*, MidParth. *qmbyft*, ZorPahl. NPers. *kam*, which is found also in Sogd. Bud. *knpy* 'deficiency', Man. *kmbyy* 'of little value', *kmbwnyy* 'diminution'.

34. *læzyær* I., *læyzær* ID. 'path' < **fra-žgara-* or **fra-žzara-*; *zylēn*, D. *æyzælun*, *æyzælun* 'fall, flow down', trans. *zylēn*, D. *æzælun*, *æzælun* 'make to fall'.

Sogd. *zy'rt*, 'zy'rt; Man. Chr. *žyrt* 'quick', Pašto *zyard* (with *zgāštal* 'to run'). Khotanese uses *haspara-* 'path' < **fra-spara-*.

35. *rīvæt*, D. *ræftbadt* 'rest, siesta', *rīvæt áfon* 'time for daily rest'; *ræftád* ID. 'noonday meal, noonday', D. *ræftæ* 'noon', I. *rīvætdon*, *rivæddon* (K'osta, *Iron Fændir*, Qubadī 10) 'place of siesta' < **rapitvā-*, see Baiev-Lentz's edition of Kubaltī Aleksandr, *Æfærdtī Xæsanæ* 197; Morgenstierne, NTS 12. 268; V. Miller, IF 21, no. 54. A fuller form with *a-* is found in *fæs-aræftæ* D, *fæs-áræftī* I 'afternoon'.

Sogd. *rypðβh* 'midday' Dhuta 209 (see also Henning, BBB 63); MidPers. *rbyh* (Andreas-Henning, *Mitteliran. Manichaica* I p. 17 R II 31; *Ein manichäisches Henochbuch* 33 note 4). Khotan. *ravye pa*, *rravye pa* 'south', Avestan *rapiθwā-*, *arēm.piθwā-*.

36. *ron*, D. *ronæ* 'belt, girdle', plur. *rædtæ*, < **rāna-*.

Sogd. Bud. *r'n'kh* (VJ 41c, p. 44) rendered 'bijoux' is 'girdle' as Ilya Gerševič has shown me.

Av. *rāna-*, ZorPahl., NPers. *rān* 'thigh'.

37. **son** ID. 'enemy' < **sāna-*.

Sogd. Bud. Man. Chr. *s'n* (see Henning, BBB 69); Khotan. *sāna-*, adj. *sānīnaa-* (Jātaka-stava 32 v 2, quoted BSOS 10. 903); Kuchean *sām*, plur. *sañi* (E. Sieg, *Die Kutschischen Karmavibhanga-Texte der Bibliothèque Nationale in Paris*, Zeits. f. Vgl. Sprachf. 65, on folio 1 b 2; Konow, NTS 13. 210). The phrase *rin sōnæi dær ændær* (Dict. s.v. *son*) 'illness, other (trouble) from the hostile world' recurs in *Bulæmæry* p. 10 in *zarægmæ paddzaxi cæstitil rinæi-sonæi ci ūadi, udon tari kænīn baidīdtoi* to which corresponds 'as it sang, the spectres grew paler and paler'.

38. **stad** ID. 'weary' < **stāta-*, *stāin*, D. *stayun* 'to weary'.

Khotan. *stā* 'weary' < **stāta-* (BSOS 10, 598).

39. **sug** 'horn', known to me only in D. *sædsugon* 'hundred-horned' in the verses *dælæ i komi dumægi sædsugon sag xezui* 'below in the entrance to the ravine the hundred-horned stag is grazing' (Pam. 2. 135, no. 52). Hence *sug* contains *su-* < **sru* 'horn', beside *si*, D. *siūæ* (< **suūæ* ?), *sik'a*, *sk'a* with suffix *-k'a* (see below under *xūnk'*).

Khotan. *šū* 'horn', *švīnaa-* adj. 'of horn'; Waxī *šəu*, *šau*; Yidya *šū* (Morg. IIFL 2. 414, 543), Av. *sru-*.

40. **sunt** D., *sint* I. 'raven', plur. *sintītæ*.

Khotan. *šsunda-* E, later *šāmda-*, diminutive *šāmdala-* (see BSOS 10. 585); Waxī *šənd* 'raven' (Morg. IIFL 2. 543).

41. **tayd** ID. adj., adv. 'quick', sb. 'quickness', *ūaitayd* 'at once', related to *tæxīn*, *tæxt*, D. *tæxun* 'fly', *ærtæxīn* 'fly, run to'.

Khotan. *thatau*, later *thyau* 'quickly' < **θataka-* < **taxtaka-* (which I wrongly opposed earlier, BSOS 9. 76).

42. **-tæ** ID. plural suffix, inflected with endings of the singular. After numerals *-tæ* is doubtful. Such a case of *-tæ* after a numeral appears to be found in Digor *ūæiguti xucaū ku sfaldista ūædta si ærtæ ænsuvertæ adtæncæ* (V. Miller,

Osset. Etiudi I 92) 'when God created the *Ūæyug* (giants), then there were of them three brothers', to be contrasted with *ærtæ æfsimæri udisti* 'there were three brothers' (ibid. 58). But R. von Stackelberg (*Beiträge zur Syntax des Ossetischen* 65) questioned this use. The *-tæ* plural, however, occurs after *biræ* as in *biræ ændærtæ* 'many others' (Luke 8. 3), *biræ kæfti ūozæi* 'with the weight of many fishes' (John 21. 6). Earlier attempts to explain *-tæ* are listed by V. Miller (*GIP Ossetisch* 41). (Is it necessary now to warn against confusion with the Georgian oblique plural *-ta*?) It should be noted that the *-t* is treated as if initial, remaining therefore *-t* between vowels and after nasals, whereas Old Iranian intervocalic *-t* passed to *-d*-. The *-tæ* can then be identified with Old Iran. *-tā* in semi-independence in a compound, which has resulted in the change of **-tā > *-ta > *-tæ*, while as an independent monosyllable **tā* became *ta* as **mā* became *ma* with *-a*, and in the final syllable of a word *-ā* became Digor *-æ*, and was lost in Iron: *madæ*, *mad* 'mother'. If the gen. *-ti*, D. *-ti* continues an old form *< *-tayāh*, then a derivation of *-tæ* from the Old Iran. **-tās* nom. sing. of the *-tāt*- abstract is excluded. It will be seen below that Sogdian also requires **-tā*. The *-dæ* of D. *bæzdæ* 'thickness' could, if it stood alone, be derived from *-tā*, that is, **baza-tā*-, but D. *bæznag* 'thick' and I. *bæzn* 'thickness' speak rather for *zd < zn* (see above under *qæznig*).

Sogd. Bud. *-t'*, *-th*; *-t*, obl. *-ty*; Man. (with *t* or *t̄*) *-t'*, *-d'* after *n*; *-t*, *-d* (*-tt*), obl. *-ty'*, *-ty'h*, *-tyy*, *-tyh*, *-dy'* (Henning, BBB 57); Chr. *-t'*; *-t*, obl. *-ty*. P. Tedesco (ZII 4 (1926) 149) and Benveniste (*Gram. Sogd.* 2. 79) derive this *-t'* from **-tā*. The oblique *-ty* excludes **-tās*, with which C. Bartholomae (WZKM 30. 18) had identified *-t'*. NSogd. (Yaynābī) has *-t*, obl. *-ti*. Chorasmian *-c*, that is, *ts*, *< t* (A. Freiman, *Khorezmij-skij Yazik* 314).

The *-tai* in the names *Σαρματαί*, *Σαυροματαί* appears to be a Greek adaptation of this same suffix *-tā* as plural ending, beside which the old nominal ending *-ā* (which has left traces also in Sogdian, and in *Ās* after numerals) is probably pre-

supposed by such Greek plurals as **Ἄλανοι* without *-ται*. The arguments of Max Vasmer (Streitberg Festgabe (1924) 373) against the identification of *-ται* with this *-tā* ending do not seem to carry weight. The explanation of the *sarma-* of *Σαρμαται* as related to Avestan *sairima-* (ZorPahl. NPers. *salm*) is almost certain (see H. H. Schaefer, *Iranica* 50-1). The Hungarian loanword *ezte* 'year' used as a singular but taken from an *Ās* form corresponding to Iron *æztæ* 'years', plural, likewise attests the early existence of *-tæ*. The doubts of G. Schmidt (*Zur frage der ossetisch-ungarischen lehnwörter* 91) seem to me implausible. Foreign words in the plural used as singulars in the borrowing language are well known: Engl. *magazine* is the Arabic plural *maxāzin* 'stores', Ital. *cherubino* is made from a Semitic plural in *-īn* or *-īm*, and *cherubims* has been used in English. The *Magyar etymologiai szótár*, ed. Gombocz and Melich, thought, hardly rightly, of a shortening from *esztendő*.

No use of *-tā* to form a plural has been noted in Khotanese. It has, however, always been usual to quote the parallel Avestan use of *-tāt-* as in Yasna 32. 15 (Gāθā) *karapō.tāšcā kavītāšcā* 'the priests and princes' with the *-tāt-* suffix expressing a collective plural beside Yasna 46. 11 *karapanō kāvayasācā* with the usual nom. plural endings. Note too the treatment of the abstract suffix *-tāt-* as an independent word in Av. *yavaēča tāite*, with *-ča* between the two components of *yavaētāt-* 'eternity', and Pašto *təštyā* 'emptiness' < **tusya-tāti-*, with *-t-* treated as an initial (since medial *-t-* became *-l-*, Morg. NTS 12. 93). Khotanese has similarly *ttuššättātā* 'emptiness' < **tusyaka-tāti-* (for this and other forms of this suffix, see JRAS 1942. 27-8). It should be added that *-tāt-* survives in Sogd. Man. *fryt't* 'love' (Henning, BBB 125).

43. *tunæ* D., *tīn* I. represent two different words 1. 'cloth', 2. 'ray of light' both < **θauna-* < **tafna-* from the bases *tap-* 1. 'to spin' 2. 'to shine'.

(1) *tunæ*, *tīn* 'cloth' < **θauna-*.

Khotan. *θauna-*, later *θaun̄*, *θau*, 'cloth, silk' < **tafna-*,

frequently mentioned in official documents (see BSOS 10. 599). In the Siddhasāra 141 v 3 *kuham̐ thau jsa* 'with an old cloth' renders Sanskr. *caīlapatta*. From Khotanese or a related dialect the Uigur Turks borrowed *ton* 'garment', written *tom* in Brāhmī script (BSOS 9. 295), as H. H. Schaefer indicated to H. Lüders (*Textilien im alten Turkistan* 24). A Central Asian Sanskrit form **thavana*, miswritten *thacana*, was earlier quoted from a Chinese-Sanskrit Lexicon (BSOS 8. 917, from P. C. Bagchi, *Deux lexiques sanscrit-chinois* I 48, 279). The assumption that *tunæ* derives through **θauna-* is due partly to the comparison of the parallel case of *xaū-* 'fall' from **kaf-* and other cases of $x < k$ (see below on *xaūn*), where x survives in *Ās*, while all θ have become t ; and partly because of the Khotanese form *thavna*. No Sogdian form has yet been pointed out. Meantime I see Morgenstierne has recognized both words (NTS 12. 267).

(2) *tunæ*, *tūn* 'ray of light' < **θauna-* < **tafna-*. Pam. 2. 150 has *xori tuntæ* 'rays of the sun'. Yazgulami *θən* 'fire, hearth' < **θauna-* < **tafna-* (R. Gauthiot, JA 1916. 1. 253, 268, Morg. Report on . . . Afghanistan 23). In Chorasmian *θw-* **θāu-* 'to burn' derives from **taf-* (see Ahmed Zekī Walīdī, *Islamica* 17 *Hwārezmische Sätze in einem arabischen FIQH-Werke*, sentence 10). Similarly Šuynī *θau-*.

44. *ūa-*, see *ca-* above.

45. *ūādzin*, D. *ūadzun*, ptc. *ūayd* 'allow, let go, dismiss' < **vāč-*.

Sogd. Bud. *w'č-*, *w'γt*; Man. *w'č-*, *γw'nw'čyy* 'absolution' (passim in P; Henning, BBB 136).

46. *ūasin*, *ūast*, D. *ūasun* 'make a sound (beasts, birds, instruments)', *nūūāsīn*, *nūūāsīdī*, D. *nūūāsun* 'idem'.

Khotan. *bāsa-*, P 2781. 91 *hastāna hīvī bāsā* 'the trumpeting of elephants', *nvāsa-* 'noise', P 2783. 2 *rathā nvāsā u dāmā* 'roar, noise and smoke' in describing a battle (BSOS 10. 588), *nvāššīndā* 'they make a noise' (E 25. 503).

47. *ūat* ID. 'bed, sleeping-room, room'.

Sogd. Bud. *w'δ-* 'bed': *čnn w'δy mnyz* 'he rose from bed' Dhuta 225; Man. *'x'sw'δyy* 'battle-field'. The word

is considered by Henning (*Sogdica* 26). O. Hansen (*Zur soghdischen Inschrift auf dem dreisprachigen Denkmal von Karabalgasun* 39) compared *w'δ-* with *Ās ūat*. Since *Ās ūat* represents, if normally transmitted, **vāθa-* with *θ*, the comparison depends upon the value of Sogdian *δ* which may represent either *θ* or *d*. Sogd. Chr. uses *ṭ* for older *θ* as *r'ṭ* 'road', Sogd. Bud. *r'δ- *rāθ*, but no certain Chr. form for *w'δ-* appears to have been found.

48. *ūærm*, *ūorm*, *orm*, D. *ūærmæ* 'hole'; loc. sing. *ormī* 'in a pit' (Mat. 12. 11).

Agnean 229 a 2 *warm-am* loc. sing. 'in a pit' (conjecturally, see Sieg, Siegling, and Schultze, *Tocharische Grammatik* 53).

Sogd. Bud. *wrm'yčyh* 'in a hole' (P 2. 272), is plausible. Ilya Gershevitch directed my attention to this passage.

A different meaning was developed in Khotan. *bārmana-* 'prison', ZorPahl. *varm*, NPers. *barm* 'reservoir' (J. Tavadia, *Šāyast nē šāyast* 2. 22). Both **varma-* 'hole' and **varma-* 'reservoir' derive from *var-* 'to cover, enclose'. The two Armenian loanwords *varm* 'net' and *vermak* 'coverlet' belong here.

Georgian *ormo* 'hole' is derived from *Ās orm*. The final *-o* is frequent in Georgian in two uses, 1. to foreign words, as *amo* 'pleasant', Armen. *ham* 'taste', *poso*, *posov-i*, Armen. *p'os* 'foss' (from Latin-Greek *fossa*, *φόσσα*), *roč'ik'o* 'salary' (Glossary to the Georgian *Shāhnāmāh*), Armen. *roč'ik*, *spero* 'ball', Armen. *sp'er* (*σφαῖρα*), *sp'ilo* 'elephant', NPers. *pīl*, *Osmalo* 'Turk', *Qabardo* 'Kabardia'; 2. to form hypocoristic names *Andro*, *Ivano*, *Mixak'o*, *P'et'o*. The alternation *va- ~ o-* is found both in *Ās* and in Georgian: note in Georgian *k'oml-i*, *k'vaml-i* 'family', *diak'on-i*, *diak'van-i* 'deacon', *amīlazvar-i*, *amīlazor-i* 'equerry'. A special case is Georgian *gvar-i* 'kind, sort, family', *am-gvar-ad* 'so', *qovel-gvar* 'of all kinds', beside *-gor-* in *ro-gor-i* 'of what kind', both from MidPers. *gōhr* 'nature, kind'. The word spread to the Circassian languages: Abzax *gware*, *gwarə*, *gorə* and others, see G. Dumézil, *Etudes comparatives sur les langues caucasiennes du nord-ouest* (1932) 37. A. Dirr (*Caucasica* 4. 81) had briefly

conjectured a connection of the Ubix form with Georgian *gvar-i*. For *-or-* from *-ōhr*, note also Georgian *zor-va* 'to sacrifice', MidPers. *zōhr*.

Hungarian *verem* (*verēm*) 'foss' belongs to Ās *ūærm* (H. Sköld, *Die ossetischen Lehnwörter im Ungarischen* 39; G. Schmidt, *Zur frage der ossetisch-ungarischen lehnwörter* 98).

49. *ūis*, D. *ūes* 'scrub' < **vaitsa-*; *xæris*, D. *xærües* 'willow'; *ūisqæd*, D. *ūesγædæ* 'maple'; *ūisoi*, D. *ūesoïnæ* 'a broom' (see Morg. IIFL 2. 264; NTS 12. 269).

Khotan. *bisu*, *besu* 'bush, tree': *īramdīnai bisu* (Siddhāsāra 9 r 1) 'castor-oil bush'; *barašijā hīvī besu* 'juniper bush' (ibid. 152 r 1).

50. *-un*, I. *-in*, verbal noun inflected in the singular and in the *-tæ* plural (see V. Miller, *GIP Ossetisch* 67; R. von Stackelberg, *Beiträge zur Syntax des Ossetischen* 84). The following passages illustrate further uses. With the verb *kæn-* a transitive and a causative are formed: 1. *irvæzīngæxnæg*, D. *yervæzungæxnæg* 'saviour' (Dict. s.v.; John 4. 42), where *k* > *g* as in a compound; 2. *banazīnkæn* 'give to drink' (John 4, 7), *qūsīn kodta* 'he made to hear' (Dict. s.v. *ūadzīn*). With case-endings: Allat. *kastæn dæ fæzzinnunmæ* 'I looked for your appearing' (Pam. 2. 94); Ablat. *xærinæi fīldær* 'more than eating' (Dict. s.v. *ævzali*), *p'atækænīnæi* 'from kissing' (Luke 7. 45); Gen. *udon bafsadīni tīxxæi* 'to satisfy them' (John 6. 5); Superess. *xonunbæl* 'to call' (Pam. 2. 93). The suffix *-dzīnad* is frequently attached: *xucaūīfaūndzīnædtæ* 'βλασφημία' (Mark 7. 22), *irvæzīndzīnad* 'salvation' (John 4. 22), *smūdīndzīnad* 'fragrance' (Dict. s.v.). A plural occurs in *qusīntīl fæci* 'he listened' (Bulæmæry 10).

The Ās *-un*, *-in* could represent various Old Iranian syllables *-ūn-*, *-aun-*, *-aβn-*, *-afn-*, see under *tunæ*. If we assume that the *-un* is derived from **-auna* < **avan-* we have a development of the Indo-European **-uen-*, whence a derivative in *-vana-* is found in Av. *āfrīvana-* MidParth. *'fryvn*, see above *arfæ*. But within Iranian the Sogd. Bud. *-wny*, Man. *-wn'y*, *-wny* seems more directly comparable. Bud. *kr'wny* 'action de faire, formation' (P 2. 269, 347) is from the verbal base *kar-*.

Man. *kmbwnny*, *-ny* 'diminution' (Henning, BBB 127) is connected with an adjectival **kamba-* 'little', Bud. *t'y'wny* 'theft' (P 9. 15) and *γδ'wny* 'theft' (SCE, *Gram. Sogd.* II 98) are derived from nouns. Khotan. *-ūna*: *hayārūnā-* 'desire' (see Konow, *Khotansak. Gram.* 69) may also be compared, if *-ūn-* is from *-aun-*.

51. *xáūn*, *xaiūd* ID. 'to fall', *xaiūæn* ID. 'fall, place of fall' < **xäv-* < **kaf-*.

Khotan. *kas-*, ptc. *kašta-* 'to fall' < **kaf-š-* with *-š-* kept in the participle as in *dīšta-* 'ripened' < **dax-š-* < **dag-* 'to burn, ripen'. With preverb *ā-* occurs *ā-tas-* in E 25. 168 *kye vā pāstumḡga ātasāre* 'or who fall down headlong' (as often *-t-* replaces older *-k-*).

MidParth. *kf-*, *kft* (A. Ghilain, *Essai sur la langue parthe* 56); ZorPahl. *kaft* (loanword from the northern dialect).

Khotan. *kuham* 'old' < **kafvana-*, corresponds to MidParth. *kfwñ*, MidPers. *qhwn*, NPers. *kuhan* 'old', as from 'decadent' (Henning, BSOS 9. 84).

Initial *k-* is replaced by *x-* also in other Ās words: 1. *xæfs* 'toad, frog'; *ūorjīn xæfs* 'tortoise' (V. Miller, *Beiträge zur osset. Etymologie*, Memnon, 1910, no. 18) from **kašapa* < **kasyapa-*, attested in Sanskr. *kaśyapa-*, *kacchapa-*, Av. *kasyapa-* (a daēva creature), NPers. *kašaf*, Pašto *kašap*, *kašp* 'tortoise' (Morg. EVP 34); 2. *xæf*, D. *xæfæ* 'slime, pus', Khotan. *khavā-* 'foam', Munjānī *xaf* 'foam', Av. *kafa-*, NPers. *kaf*, Sanskr. *kapha-* (other dialectal forms are given by Zarubin, Iran I 178); 3. *xærsun*, *xæssun* D., *xæssin* I. 'carry' < **karš-* 'draw', Av. *karš-*, NPers. *kaš-*; 4. *xīn*, D. *xīnæ* 'trickery; adj. deceitful', Av. *kaēnā-* 'vengeance', Sogd. Bud. *kyn* 'hate, vengeance', NPers. *kīn* 'malice'; 5. *xædz*, D. *xædzæ* 'hook', *xádzonæg*, *k'adzonæg* 'hook', *k'ædz* 'crooked', MidParth. *kž-* 'crooked', NPers. *kažž* (Henning, BSOS 9. 84). In this last case for *x* < *k* beside *k'*, note *xīssæ*, *č'issæ*, D. *k'insæ* 'dough'. On *xūnk*, see below.

52. *xætdzæ*, *xædcæ*; *xædzdzæ* (Æmbælti Cock'o, *Narti Xæmici firt Batradzi Taiŕæxtæ*, Tale 3), D. *xætcæ*, *xædcæ*, *xæccæ*. The Digor word is a postposition corresponding to

Iron *-īmæ* 'with'. In Iron the word is adj. and sb.: *xætcaé* 1. 'mixing' 2. adj. 'mixed', *xætcaé kænīn* 'to mix', also *æmxcædcæ* 'mixing', *æmxcædcæ kænīn* 'to mix', D. *æmxcædcæ*, *æmxcædcæ* 'mixing'.

Khotan. *hamtsa* 'together with' used with *jsa* 'with'. In one place (BSOS 10. 581) of the Rāma text *hamtse* may be an abstract 'being together'. The word is derived from *ham-* 'with'.

If the Ās and Khotanese words belong together the initial *x* of Ās will be a replacement of *h-*. In Ās initial *h-* either drops or is replaced by *x*: *avd* '7', *æm-* 'together', *ayd* 'loins' (**hafta*, **ham-*, **haxti-*), beside *xid*, D. *xed* 'bridge' (see below), *xizīn*, D. *xezun* 'to rise' (see below). In *xom* 'raw' < **āma-*, *x* has been prefixed, as we have Sogd. Bud. *γ'm* (SCE) and Khotan. *hāma-* 'raw', and in NPers. *xām*. A final foreign *h* is replaced by *x* in *patcax* 'sovereign', NPers. *pādišāh* (possibly not directly from NPers.). These treatments of *h* imply a period of instability or complete loss of *h* in Ās.

53. *xid*, D. *xed* 'bridge' < **haitu-*.

Sogd. Bud. *ytkw* (SCE 539), NSogd. (Yaγnābī) *ītk*; Khotan. *hī* (BSOS 10. 373): *hī nāya sagyau ūca* 'now build a bridge with stones in the water' (P 2783. 85), with *hī* < **haitu-*, as *bī* 'willow' < **vaiti-*; Av. *haētu-*. The word survives in Afghanistan as *hil-* in the river name *Hilmand* Av. *Haētumant-*, *Ἐρύμανδρος*, ZorPahl. *Hēt'ōmand* (GrBund. 89. 9 with the replacement of *-mand* by the common *'wmnd*). In *xed* Old Iran. **hai-* has become *xe-*. This change occurred also in D. *xezun* < **haiz-* (see below). Note that *-u* is not preserved in Ās: so also *fis*, D. *fus* 'cattle' < **pasu-* and *mīd*, D. *mud* 'honey' < **madu* (Sogd. Bud. *mδw*, Khotan. *mau*).

Hungarian (old) *heed*, (new) *hid* 'bridge' and Georgian *xid-i* (older *xid-*) derive from the same source. G. Schmidt's objections, at a time when all the evidence could not be known, seem of little weight (*Zur frage der ossetisch-ungarischen lehnwörter* 93-4; *Zur erforschung der ossetisch-ungarischen*

lehnbeziehungen 28 ff.). Had we not had *xed* < **haitu-* in Ās we should have had paradoxically to assume its former existence there. V. I. Abaiev seems also to have doubted the derivation of *xed* < **haitu-* according to the summary of his *Alanica* in ZDMG 93 (1939) 36 by D. Gerhardt, but I have not seen it.¹

54. *xīstær*, D. *xestær* adj. sb. 'elder, eldest' with *xi-*, *xe-* < **hvai-*.

Sogd. Bud. *γwyšt̄k* 'revered, teacher', *γwyšt̄r-* 'master'; Man. *xwyštr* 'superior, master' (Henning, BBB 139); Chr. *xwšty* 'teacher' (see F. Rozenberg, Orient. Literatur-Zeit. 1929, 194–200 reviewing H. Reichelt's *Soghdische Handschriftresten* I). Av. *hvōišta-*, Munjāni *xušči*, *xušk^vē* are given by Morgenstierne (IIFL 2. 269). Khotan. *hwāšta-* 'best, eldest' is not directly comparable (unless *-ā-* replaces an older *āi*?). Maralbaši Iranian has *hvešta*.

Beside *xīstær* we find the antonym *kæstær* ID. 'least, youngest', to which Sogd. Bud. *kštr* (P 11. 35), and Chr. *qštr* correspond. Mat. 25. 40 has *čn y'nt̄ mn' br't'rt qštr̄t'* 'from the least of my brothers'. Add Pašto *kašr* 'younger' (Morg. EVP 34).

55. *xīzīn*, *xīst*, D. *xezun* 'climb, pass over' < **haiz-*.

Sogd. Bud. *γyz-* in *z'y-γyz'k* 'creeping on the earth' (P 2. 1110); Man. *z'yxyzyy* (Henning, BBB 140). See also *Gram. Sogd.* ii, 21. MidPers. *xēz-*, *āxēz-* 'rise', *praxēz-*, *vihēz-* (with *h*), MidPers. Psalter 'hyc- **āhēz-* (Henning, *Das Verbum des Mittelpersischen der Turfan fragmente* 178), *vhyčyt*, *vhyčwmy* (Paikuli inscription, Pārsik), NPers. *ristāxīz* 'resurrection'. Neither Sogdian nor Persian decide between *x-* and *h-*.

Khotan. *pahīys-*, *pahāšta-* 'flee', *vahīys-*, *vahāšta-* 'descend', *bihīys-* 'decrease'. Since intervocalic *kh* is replaced by *h* in *bihan-* 'to laugh' beside *khan-* (< *xand-*),

¹ I particularly regret that I have seen only Abaiev's article on Ās accentuation and none of his later writings, and that I have not seen V. Æ. Ælbort's *Grammar of Iron* 1925 (known to me from Bouda's reference, *Caucasica* 11. 49).

but *kh* becomes *ch* after *pati-*, only *pah̄ys-* aids to a decision. Thus *pachus-* 'vanish' < **paḷ-xuvs-* < **pati-kufs-* and *pach̄ys-* 'to be called' < **paḷ-xēz-* < **pati-xaiz-* beside *hamkh̄ys-* 'to count'. Hence *pah̄ys-* from **pati-haiz-* with *-h-* kept (not from **apa-haiz-*, as proposed by Konow, *Saka Studies* 164, just as *patält-* 'to cut' is to be compared with Sogd. *ptkrnt-*, with *pati-* not *apa-*) supports a base *haiz-*. In one passage Siddhasāra 129 r 1 (in a diagnosis of sciatica) it is stated *cvai hurāvūā bāta trāme, u ni ra butta tsai, u pārvā u hamguṣṭām hamdrrye vya bāta tti h̄ysde u paṣṭe, u ne ra tsva himye, bete jsa, arrdettā nāma āchai* 'when the wind enters the limbs, and can no longer go, and the wind in the heels and between the fingers then rises and starts, and can no more go, it is the wind disease called arditā'. The word *h̄ysde* would give a base **haiz-* but a doubt must remain since *tti* might be a preverb (Old Iran. *ati-*), and not adverb. The Tibetan and Sanskrit texts do not clarify this point.

Av. *pāiri.haēz-* occurring once in Vidēvdāt 21. 4 *usihišta pāiri. haēzamuha* 'rise up, go around' of which the ZorPahl. translation 'phzn is partly transliteration, gives a further fairly sure foundation for assuming **haiz-* not *xaiz-*.

56. **xos**, D. *xūasæ* 'hay, medicinal herb, remedy'.

Khotan. *hwāṣṣa-* E, *hwāṣa-*, *hwāta-* (BSOS 10. 590) 'herb', translating also Tib. *ldum-bu* 'vegetation'. The equation Ās *-as-* = Khotan. *-āṣṣ-* excludes a connection with *vāstra*, as given in Morgenstierne's discussion of Pašto *wāšə* (EVP 93), since in Khotanese *str* is not replaced by *ṣṣ* (*vāsta-* 'garment' < **vastra-*). If Khotan. *huṣṣ-* 'to grow', ptc. *huṣṣāta-*, Caus. *huṣṣāna-* < **vaxš-*: *uxš-* is compared, *hwāṣṣa-* can represent **vaxša-* with secondary *h-* due to *huṣṣ-* (cf. before a vowel *hāma-* 'raw' < *āma-*, *hālaa-* 'direction' < **ardaka*). For *-āṣṣ-*, cf. *rrāṣa-* 'brown' < **raxša-*, NPers. *raxš*.

Sogd. Bud. 'γwš'y-' 'to grow' (P six times), that is, **axuṣāy-* also has a secondary prothesis similar to that in 'γwštr **axuṣtr* 'camel' (so, rather than *vaxš-* > *xvaš-* in view of the Khotanese). An unexplained *x* appears also in NPers. *xurd* compared with Pašto *wur* 'small' (Morg. EVP 92).

57. **xǔm**, D. *xumæ* 'field', *xǔmgænd*, *xǔmgónd*, D. *xungændæ*, *xungond* 'cultivation'.

Sogd. Bud. *γwrmh* VJ 1464 'earth, soil'; Man. *xwrm xrum* (I. Gerševič, JRAS 1942, 101; F. W. K. Müller, *Die 'persischen' Kalendarausdrücke im chinesischen Tripitaka* 3); Sarikoli *xorm* 'dust' (Shaw, *The Ghalchah Languages* 73, quoted from Tomaschek by F. W. K. Müller). With this Gershevitch compares Av. *pa-xruma-* 'made of earth', found only in Vidēvdāt 2. 23 as an epithet of *nmāna-* 'dwellings'.

If the Ās word is the same as the Sogd. **xurm-*, *xrum* and Av. *-xruma-*, the phonetic difference *rm—m* is unusual. I cannot quote a second case of *m < rm*; the group *rm* is maintained in *kǔrm* 'blind'. There is, however, a certain instability about the groups *rm*, *rn*. Morgenstierne (NTS 12. 268) has explained *listæn*, D. *listæn* 'straw-bed' from **frastarana-* with *n < rn* in secondary contact, and also *fīr*, D. *fur* 'ram, wether' < **pṛna-*. Similarly D. *γardon* corresponds to I. *qærmædon* 'hot mineral water', beside *qarm*, D. *γar*, *γarm* 'hot'.

58. **xǔnk'**, plur. *xǔnc'ītæ* 'hole, pit'; D. *xunk'i* gen. sing. (V. Miller, GIP *Ossetisch* 43).

Khotan. *khūne*, gen. plur. *khūnām* 'hole' (Siddhasāra 102 r 5, v 1), *khūnaka* 'small hole' (P 2783. 9, BSOS 10. 373); adj. *khūnājsa-* 'with holes' (N 50. 30).

If a secondary *x < h* were assumed in the Ās word, a connection with Av. *una-* 'hole' (whence ZorPahl. *unak*, GrBund. 94. 15 *unīk* 'living in holes', Indian Bund. 29. 7 (Pāzand) *xuni*) would be possible, but in Khotanese the prothetic *h-* survives as *h-* in *hāma-* 'raw' (see above under *xædcæ*). The alternative is to assume *x < k* (as under *xaiñ* above), and to compare Kurdish (Bōxti) *kun* 'hole', as in *sār kúne mārī* 'on the snake's hole' (K. Hadank, *Untersuchungen zum Westkurdischen: Bōtī und Ēzādī* (1938), tale III); similarly Yazīdī *bē-kun bū* 'it had no hole' (= Arab. *bilā taxallul*, Maṣḥaf rāš 11, ed. Bittner, *Die Heiligen Bücher der Jeziden* 55, 56, see also Jaba-Justi, Dict. *kun*). ZorPahl., NPers. *kūn* is the same word.

For the suffix *-k'*, *-k'a*, *-k*, *-ka*, *-k'*, *-k'æ*, *-qæ*, *-k*, *-kæ* compare the following: *lisk'*, D. *lisk'æ* 'nit'; *sik'a*, *sk'a* beside *si* 'horn'; *fink*, D. *finkæ* 'foam' < **faina-*; *cæŷ*, *cæŷk'a* 'goat'; *sink'*, D. *sunk'æ* 'swelling' < **sūna-* to *ræsiin*, D. *ræsuyun* 'to swell'; *fir*, D. *fur* 'wether', *firk'a*, D. *furk'a* 'young wether'; *sink*, D. *sunk* 'sewing', *ŷæxsk*, D. *ŷæsk'*, *usqæ* 'shoulder'; *ælxisk'*, D. *æxsilk'æ* 'pinch, nip'.

59. *zærŷæ*, *zærŷai* D. 'old age', *zærŷæmæ*, *zærŷaimæ* 'to old age' beside *zæron* ID. 'old'. The Dictionary (s.v. *xoi*) quotes Pam. 2. 11 *mæ zærŷæ min xoitæ dæx ma bazudtoncæ* 'my old age even the ravens know'. For the ending *-ŷæ*, note the following: D. *kæxŷæ*, *kæxæ* 'name of an edible herb'; D. *qarŷæ*,¹ *qaræ*, *qarŷæ*, I. *qaru* 'ability'; D. *p'arŷæ*, *p'aræ*, I. *xærv* 'epidermis, slough, veil'; D. *xæxŷæ*, I. *xæx* 'ravine, hollow'; D. *æstænk'ŷæ*, I. *stæng* 'morocco leather'; D. *fæxŷæ*, I. *færv* 'alder'; D. *cirŷæ*, *ciræ*, I. *cirv* 'yeast' (cf. Morg. EVP s.v. *trŷw* 'sour').

Sogd. Bud. *zrwch* 'old age' (Vim. 113, Dhyāna 230), *'wyh zrwyh* 'in old age' (P 2. 152), *čwn zrwyh* 'from old age' (P 2. 324, 1140).

60. The Old Iranian optative forms are employed in Digor to express a durative past (see V. Miller, GIP *Ossetisch* 76, 80). This use was recognized by P. Tedesco (ZII 2. 296–301) in Avestan and Sogdian; and in the NSogdian (Yaynābī) preterite. The same use was pointed out in Khotanese (BSOS 10. 593, 907). For OPersian, see E. Benveniste below, p. 50.

The following etymologies, since they do not show exclusive connection between the Ās and the Sogdian or Khotanese, are given apart from the others.

61. *ardaun* ID. 'complain, abuse', ptc. I. *ardīd* < **ā-drāv-*, MidParth. *dr'w-*, MidPers. *dr'y-*; Sogd. Man. *ž'y-* 'speak' (Henning, BBB 126), ZorPahl. *drāy-* 'speak' (of *dēvs*).

¹ If *qarŷæ* is < **garba-*, Sogd. Bud. *γrβ-*, beside *γrβkh* 'understanding, wisdom', *γrβ-* (Bud., Man.) 'to know' are comparable.

V. Miller, IF 21, no. 27, had thought of the base *drav-* 'to run' from 'urging' dogs on.

62. *æfsóndz*, D. *æfsoi* 'yoke' < **fšān*(.)*č-* from **fšāna-* 'neck, shoulder-blade' attested by Khotan. *kšāna* E 21. 45 (which I was able to show Professor Konow in time for his grammar (p. 109)), ZorPahl. *š'nk* (GrBund. 215. 5, recognized here by R. C. Zaehner), NPers. *šānah*. In the sense of 'comb' Pašto has *žmandz* < **fšān-čī-* (Morg. EVP 106, NTS 12. 89 with many other forms). The group *fs* < **fš* is found also in *æfsærm* ID. 'shame', Khotan. *kšārma-*, Sogd. Bud. *šβ'r*, *šβ'rm'k*; Man. *šf'r* (Henning, BBB 135). For *ndz* and *y*, see above under *ælxinc'*.

63. *ægás* 'whole, well, alive' ID. < **a-kāsa-* 'not deficient', to ZorPahl. *kās-*, NPers. *kāh-*, *kāstan* 'to diminish', Armen. loan-word *pakas-em* 'fail, diminish' (A. Meillet, Rev. des Et. Armén. 2 (1922) 6). For this way of expressing 'wholeness' by a negative, cf. Sanskr. *akhīla-* 'whole', *khīla-* 'supplementary', *aśeṣa-* 'whole', Lat. *integer* > Engl. *entire*. V. Miller, IF 21, no. 4, starting from 'alive', compared Sanskr. *sakāśa-*.

64. *ælxói*, D. *ælxoinæ* 'small pestle' < **grā(u)nya-*. On *ælx-* < **gr-*, see above *ælxinc'* < **granθya-*. This then provides an Iranian connection of Sanskr. *grāvan-* 'stone to press soma', Old Engl. *cweorn* 'quern' (see Walde-Pokorny, *Vergl. Wörterbuch d. indogerm. Sprachen* I 685, where other Indo-European forms are to be found). V. Miller, IF 21, no. 7, assuming too narrow a meaning, sought a word for 'salt' with the base *χoi-* 'to beat'. He did not quote the Digor form.

65. *ælxui*, D. *ælxuinæ* 'handle of spindle, spindle' < **graunya-* from the base *grab-* 'to take'. On *-aun-*, *-avn-*, *-afn-* > *-un-*, see above *tunæ* and add *fīn*, D. *fun* 'sleep' < **hvafna-*.

66. *sint* 'litter, bier', *úælsint* 'upon a bier'. Digor has *sintæ* in *mærd-sintæ* 'bier' ('corpse-bier'); also I. *sintæg* 'bed'. Here *sin-*, *sin-* < **sayana-* 'place to lie down' from *say-*, Sanskr. *śayana-* 'bed'. The suffix *-t*, *-tæ*, if old,

would represent θ , or like k in *fink*, D. *finkæ* 'foam' may be a later addition, to be compared with $-t$ in *mist*, D. *mistæ* 'mouse'. Ought Uigur Turkish *syn* 'sepulchre' to be compared?

67. *ürz*, *ürdz*, D. *urz* 'finger-tip' < **ʕzu*-. The $-u$ has modified the ar - (< *r*) of the first syllable, as in *mid*, D. *mud* 'honey' < **madu*, Khotan. *mau*. Similarly V. Miller, IF 21, no. 74.

Av. *ərəzu*- 'finger'.

68. *zæyin*, *zayd*, D. *zæyun* 'to say' < **zag*-. If dz in *fædzæxsin*, D. *fædzæxsun* 'entrust, enjoin, assure' could represent $-iz$ - (on *fæ*- < **pai*-, see above under *fæinæ*), it could be explained as **pai-zax-š*-. For dz < z , cf. also *dældzæx* 'under the earth, the underworld': *zæx* 'earth'.

Mid. Parth. *zxs*- tr., intr. 'to sound' (A. Ghilain, *Essai sur la langue parthe* 81) < **zag*- (but **zak*- would also be possible). NPers. *zāy* 'raven, crow' could represent **zāga*- from a base **zag*- 'to sound', a process in naming a bird which recalls the name of the cock: Gothic *hana* 'cock' beside Latin *cano* 'I sing'; Lith. *gaidys* 'cock', *giedu* 'I sing' (Walde-Pokorny, *Vergl. Wörterbuch* I 666). Also Sogd, *z'γ*.

As a further indication of Iranian in Georgian beside those mentioned above under *ūærm*, the following is worthy of attention.

nask'-va 'to make a knot', *nask'-v-i* 'a knot'. The suffix $-va$ is added to foreign nouns to form verbs, as in *zor-va* 'to sacrifice', ZorPahl. *zōhr*, Armen. *zoh*; *t'anj'-va* 'to torment', Armen. *tanj'-em* (from Iranian). The nominal $-v-i$ is found, e.g. in *p'inč'-v-i* 'nostril', Armen. *pinč*, Ās *findz*, D. *findz*, *fy* 'nose', and *mog'-v-i* 'shoe' (translating NPers. *mōzah*, Visramiani 203 = Pers. text, ed. Minovi 257), ZorPahl. *mōk*, Armen. *moyk*, *moyg* (H. Hübschmann, *Armen. Gram.* I 196). If *nask'*- is from Iranian, we have a non-

technical meaning for **naska*- which in Av. *naska*-, ZorPahl. *nask* is specialized to mean 'fasciculus' of a religious book.

In the course of this article etymologies are proposed also for the following words :—

æly s.v. *ælxinc'*, *æmbai* s.v. *falæmbulai*, *æryiü*, *balc* s.v. *ælxinc'*, *fædzæxsin* s.v. *zæyin*, *fæzzæg* s.v. *fæinæ*, *-gai* s.v. *falæmbulai*, *qal* s.v. *iræzun*, *kæstær* s.v. *xistær*, *xai* s.v. *falæmbulai*, *xædz*, *xæfs* s.v. *xaiün*, *xælc* s.v. *ælxinc'*, *xin* s.v. *xaiün*, *xoli* s.v. *dæsnî*, *zæx* s.v. *fæinæ*.

ADDENDA

To p. 13: I. Gershevitch has given me Sogd. Man. *pty'z* 'autumn'.

To p. 14: K. V. Trever in the *Travaux du département oriental* II, Musée de l'Ermitage 1940, just come into my hands, has a paper on Gōpatšāh.

To p. 15: I find that E. Schwyzer, in a footnote *Zeits. f. vgl. sprachf.* 63 (1936) 151, threw out the conjecture that *As i* was of the same origin as NPers. *i*.

To p. 19: Add that OPersian uses *hya* as an article.

ETUDES IRANIENNES

Par E. BENVENISTE

I

NOTES SUR LES INSCRIPTIONS ACHEMENIDES

L'INSCRIPTION DE DARIUS À NAQŠ I RUSTAM

Nous devons aux efforts patients et heureux de E. Herzfeld la lecture à peu près complète d'une importante inscription de Darius à Naqš i Rustam (NR *b*). Ce texte qui abonde en nouveautés, en difficultés aussi, a été commenté par E. Herzfeld lui-même et par R. G. Kent.¹ Dans l'étude qui suit, nous essayons de contribuer à l'interprétation du sens général et à la solution de plusieurs problèmes de détail.

Dès l'eulogie liminaire apparaissent des notions nouvelles, spécifiées en formules particulières à cette inscription. Darius rend grâces à Ahuramazdā d'avoir créé d'abord "ces choses merveilleuses qu'on voit" (*ima frašam tya vainataiy*); puis, le "bonheur" pour l'homme, cette *šiyāti* qui est le "bonheur" terrestre corrélatif à la "félicité" dans l'au-delà; enfin, deux qualités attribuées personnellement à Darius: *xraθu-* et *aruvasta-*. Ici nous avons les deux notions fondamentales qui vont commander et expliquer le texte entier. L'inscription est en effet destinée à illustrer chacune de ces deux qualités, par une énumération des circonstances où elles se manifestent dans la conduite du roi.

xraθu- dont on traduisait les formes védique et avestique par "force mentale",² désigne ici la "sagesse". Ce *xraθu* inspire les dispositions morales de Darius et constitue le fondement de sa justice et de sa rectitude. Suivre en toutes choses l'équité la plus stricte; ne favoriser ni le faible ni le fort aux dépens l'un de l'autre; être maître de soi et contenir sa colère;

¹ Herzfeld, *Altpersische Inschriften*, 1938, *passim*. Kent, *Language*, XV, 1939, pp. 166-179.

² Voir l'étude détaillée de K. Rönnow, *Monde Oriental*, XXVI, 1932, pp. 1-90.

rétribuer chacun selon ce qu'il aura fait pour coopérer avec lui, voilà, dit Darius, de quelle nature sont mon intelligence et ma sagesse.

Moins facile à interpréter est le second terme *aruvastam*. Mais nous avons le secours de l'étymologie : *aruvasta-* est l'abstrait de l'adjectif av. *aurvant*, véd. *arvant-* " vif, agile, rapide " et devrait d'abord signifier " vivacité, agilité ". Le sens peut en être plus exactement défini grâce au fait que ce mot *aruvasta* se trouve comme emprunt en arménien sous la forme *aruest* qui signifie " habileté, capacité, art ".¹ Le mot perse désigne donc l'aptitude physique, et comme il ressort du parallélisme entre *xraθu* et *aruvasta* que les deux qualités sont corrélatives, on est en droit de conclure que *aruvasta* désigne dans l'ordre corporel une aptitude semblable à *xraθu* dans l'ordre intellectuel et moral. C'est l'habileté dans les exercices physiques et plus généralement le talent de réussir dans la pratique, l'aptitude à faire passer dans les faits les décisions inspirées par le *xraθu*. On pourrait le traduire " talent corporel, habileté à réussir (pratiquement) ". Une autre donnée du texte confirme cette définition : *aruvasta* est mis en liaison avec *huvnara-*, où nous retrouvons un mot iranien bien connu (av. *hunara-*, phl. *hunar*, etc.) signifiant " excellence, habileté, sagesse pratique ", et l'akkadien traduit *aruvasta-* et *huvnara-* par le même mot *itbārūtu*.² On peut donc tenir pour certain que *aruvasta-* désigne le fait d'exceller dans les exercices physiques et plus généralement le fait de réussir dans la pratique.

Le début du développement relatif aux preuves de l'*aruvasta-*

¹ Je m'accorde sur l'essentiel avec H. H. Schaefer, *OLZ*. 1940, pp. 289 sqq., qui a reconnu le sens de *aruvasta-* en y comparant arm. *aruest*. Mais il me paraît restreindre à l'excès l'acception du mot perse en le traduisant " Rüstigkeit "; le texte même indique une définition plus large. M. Schaefer a vu aussi que l'opposition entre *xraθu-* et *aruvasta-* donne la clef de l'interprétation. — Je retrouve en outre *aruvasta* dans un nom propre d'Éléphantine, resté obscur (ed. Cowley, *Aram. Pap.*, n° 6, l. 21) ארוסתמר, c'est à dire *'rust-mr*, *aruvastamāra*; cf. les noms Ὠμάρης = **hu-mara* et, chez les Mitannis, *artaššumara* = *ṛta-smara*.

² H. H. Schaefer a résolu la difficulté que présentait ce mot en dérivant *itbārūtu* non de *ebēru* (Herzfeld), mais de *abāru* " être fort ".

du roi s'articule autour des démonstratifs *aita* et *ima* pris dans leur acception propre : *aita* renvoyant à ce qui précède, *ima* annonçant ce qui suit. Ces démonstratifs imposent donc une coupe des phrases différente de celle qu'admettent Herzfeld et Kent : *yaθāmaiy tya krtam vaināhy yadivā ācšnavāhy utā viθiyā utā spāθmaidayā aitamaiy¹ aruvastam upariy manasča ušičā* " quand tu vois ou entends ce que j'ai fait, tant en paix qu'en guerre, cela est ma réussite (pratique) en plus² de mon esprit et de mon intelligence ". Voilà une première définition. L'*aruvasta*- du roi se montre dans ses actes, dans ce qu'il a fait, et non plus seulement dans ses principes, et cette qualité a pour preuve toute sa conduite passée, à l'intérieur et au dehors. Il continue : *ima patimaiy aruvastam* " voici aussi mon *aruvasta*-", dont les exemples vont suivre maintenant ; ce sont ses exploits physiques : il s'affirme bon combattant, bon cavalier, bon archer, bon lancier.

Mais l'énumération de ces prouesses est rompue par une phrase assez longue, très difficile, et qui semble étrangère à la suite des idées. Après avoir énoncé : " comme combattant, je suis bon combattant," Darius continue : *hakaramčiy ušiyā gā[θa]vā vainātaiy yačiy vaināmiy hamissiyam yačiy naiy vaināmiy utā ušibiya utā framānāyā adakaiy fratara maniyaiy afuvāyā yadiy vaināmiy hamissiyam yaθā yadiy naiy vaināmiy*. Herzfeld traduit : " Wenn es meinem verstand zweifelhaft erscheine, wen ich als feind betrachten, wen ich (als) nicht-(feind) betrachten soll, ' Vor verstand und urteil ' alsdann ' zuerst ' denke ich ' ist die gūte ', auch wenn ich als feind betrachte, als ob ich (als) nicht-(feind) betrachte." Aussi peu claire est la traduction Kent : " Once let there be seen with understanding in the council, what I see (to be) hostile, what I see (to be) not (hostile) ; with understanding and with command then I am first to think of kindly acts, when I see an enemy as well as when I see a not(-enemy)." Ces traductions,

¹ Je ne sais pourquoi Herzfeld, suivi par Kent, interpole ici *dīdiy*, dont le texte n'a pas la moindre trace. La phrase se comprend sans cette addition.

² C'est le seul sens qui convienne ici à *upariy*.

dans la mesure où elles sont intelligibles, faussent assurément la suite des idées en y introduisant la notion de " bonté " qui y est étrangère. Je ne me flatte pas de l'éclaircir définitivement,¹ car d'abord l'interprétation se heurte à la forme étrange et probablement fautive *afwāyā* ; en outre la version akkadienne semble avoir omis cette phrase ou en tout cas abrège si fort ce développement que la correspondance est interrompue. Mais le sens général n'en est pas si mystérieux.

Reprenons le texte membre à membre : *hakaramčiy ušiyā gā[θa]vā vainātariy* " quand il apparaît . . . par l'intelligence ". Que signifie *gā[θa]vā* ? Herzfeld veut, par une exégèse trop ingénieuse, en faire un duel " en deux places ", ce qui voudrait dire " douteux ". Kent traduit " in the council ", équivalent plus fidèle, mais qu'est-ce que ce " conseil " vient faire au milieu des combats ? Il faut maintenir le sens ordinaire de *gāθu-* " lieu, place ", donc *gāθavā* " sur place, sur le lieu même ". Si l'enchaînement des phrases a quelque logique, *gāθavā* " sur place ", venant après " je suis bon combattant ", signifie " sur le lieu du combat ". C'est ce que la suite confirme. " Quand par l'intelligence il apparaît sur place *yačiy vaināmiy hamissiyam yačiy naiy vaināmiy* ce que je considère comme ennemi et comme non-ennemi (litt. " ce que je ne considère pas [comme ennemi] "). . . . Ici une reprise qui est une répétition renforcée : *utā ušibiyā utā framānāyā* " aussi bien par l'intelligence que par le jugement " (insertion reprenant simplement *ušiyā*) — *adakaiy fratara maniyaiy afwāyā* " alors . . . ". Le mot nouveau *afwāyā* de forme étrange et suspecte ne se prête à aucune étymologie.² Herzfeld, suivi par Kent, le corrige en *aruvāθā* " Gnade ". Il n'est pas besoin d'une correction aussi forte ; celle-ci en outre dérange le

¹ Schaefer renonce même à comprendre ces lignes : " Was freilich die Zeilen 34-40 besagen wollen, vermag ich einstweilen nicht zu erkennen " et il conclut : " Bis zum vollständigen Verständnis der Inschrift sind noch weite Wege zu gehen."

² Hinz, *Altpers. Wortschatz*, p. 44, garde " *afwāyā* " et traduit " Entscheidung (?) ". Il rapporte que V. Pisani, *Riv. di Studi Orient.*, XIX, 1940, pp. 83-84, l'interprète " provvendimenti da prendere ". Je n'ai pu voir cet article de Pisani.

raisonnement. Nous obtiendrons à moindres frais un sens meilleur en modifiant une seule lettre et en lisant *aruvāyā*, mot également nouveau, mais de forme satisfaisante et qui s'apparente évidemment à *aruvasta*. Tout hypothétique qu'elle est, cette restauration fait réapparaître le concept important qui lie en un tout ce développement entier. L'opposition marquée au début de l'inscription entre *xraθu-* et *aruvasta* est reprise ici par le contraste voulu entre *ušiyā* et **aruvāyā*. Je traduis donc : " Alors je pense, je décide (*maniyaiy*)¹ par mon habileté (*aruvāyā*), étant supérieur (*fratarā*), *yadiy vaināmiy hamissiyam yaθā yadiy naiy vaināmiy*, si je considère l'ennemi comme non-ennemi (litt. si je considère l'ennemi comme si je ne le considérais pas)."

En substance l'idée est celle-ci : " Je suis bon combattant. Quand mon intelligence me fait discerner sur place ce qui est hostile et ce qui ne l'est pas, alors ma supériorité au combat me permet de décider si je dois considérer comme ennemi ou non celui que j'ai en face de moi." Je ne donne pas cette phrase pour un modèle d'expression claire. Du moins est-elle intelligible sans qu'on ait besoin de torturer l'ordre ni le sens des mots. Peut-être arriverait-on à l'interpréter plus sûrement si un assyriologue voulait reprendre attentivement l'examen de la version akkadienne qui est fortement abrégée et en partie mutilée. Je doute que, tel qu'il est, le texte perse autorise une explication très différente.

Le reste de l'inscription se comprend sans difficulté et n'appelle que des remarques incidentes qui seront données en note. Seule l'interpellation finale mérite qu'on s'y arrête. Comme dans l'inscription de Bisutun, Darius s'adresse directement à celui qui lira sa proclamation. Mais au lieu de *martiyā* " o homme !", il emploie le vocatif *marīkā* (= akkad. *LUgal-la* " menial, Minderwertiger ") que je rends " o sujet !". Ce doit être une variante de *martiya-* au sens de " homme du

¹ Tel est le sens de *maniya-* dans plusieurs exemples : *yadiy maniyāhaiy* " si tu penses (que le peuple doit être protégé), si tu arrêtes . . . (Dar. Pers. e 20) ; *tya amaniyaiy kunavānaiy* " ce que j'ai pensé : je veux le réaliser ", en d'autres termes " ce que j'ai décidé de faire " (Dar. Suse 1 3).

commun, homme quelconque”, mais le sens propre est “serviteur, esclave”, car *gal-la* est l'équivalent de *bandaka* à Bisutun. La forme *marīka* serait étrange en face de *maryaka* bien attesté en indo-iranien et confirmé par phl. *mērak*. Mais *marīka-*, au lieu de *mariyaka* attendu, peut n'être qu'une graphie défective, pareille à *abiḥāvayam* pour *abiyaḥāvayam*, *nīśādayam* pour *nīyaśādayam*, *nīštāya* pour *nīyaštāya*.¹ Au point de vue du sens, sans reprendre ici dans son ensemble un problème qui a été débattu ces temps derniers, bornons-nous à observer que l'acception de “serviteur” se tire aisément du sens de “jeune homme” que montrent les premiers emplois de *marya*. Entre de nombreux parallèles, il suffit de penser à fr. *garçon*.

Nous donnons maintenant le texte entier, accompagné de la traduction que les observations précédentes et les notes qui suivent paraissent autoriser.

- baga vazraka a(h)uramazdā hya adadā i-
ma frašam tya vainatai[y] hya adadā ši-
yātīm martiyahya hya xraθūm ut-
ā aruvastam upariy dārayava(h)um xšā-
yaθiyam niyasaya θātīy dārayava(h)uš xšāya-
θiya vašnā a(h)uramazdāhā avākaram a(h)-
miy tya rāstam dau[št]ā a(h)miy miθa na-
[i]y dauštā a(h)miy na[imā] kāma tya skauθ-
iš tunuvatahyā rādiy miθa kariyaiš*
- 5
- 10 *naimā ava kāma tya t[u]nvā skauθaiš r-
ādiy miθa kariyaiš tya rāstam ava mām
kāma martiyam draušanam naiy daušt[ā] a(h)m-
iy naiy mana(h)uviš a(h)m[iy ty]āmai[y] [.]rtana-
yā bavatiy daršam dārayāmiy manahā*
- 15 *(h)uwaipašiyahyā darša[m] xšayamna a(h)[m]iy
martiya hya ha(n)taxšataiy anudim [ha](n)krta-
hyā avaθādim paribarāmiy hya [v]-*

¹ Il est curieux que ces formes à *i* < *-iya* se rencontrent jusqu'ici exclusivement chez Xerxes. La forme *marīka*, telle que je l'interprète, semble corroborer l'avis de Schaeder, pour qui ce “testament” de Darius serait en réalité l'œuvre de Xerxes.

- ināθayatiy anudim vinastah[yā ava]θ-*
ā prsāmiy naimā kāma tya martiya
 20 *vināθayaiš naiapatimā ava kāma yadi-*
y vināθayaiš naiy fraθiyaiš martiya
tya patiy martiyam θātiy ava mām
naiy vrnavatariy yātā (h)uradanām ha(n)du-
gām āxšnautiy martiya tya kunau-
 25 *tiy yadivā ābaratiy anuv tauman-*
išaiy xšnūta a(h)mīy utā mām vas-
aiy kāma utā (h)u[xšna]uš a(h)mīy avākaram-
čamaiy ušiy u[t]ā framānā yaθāmai-
y tya krtam vaināhy yadivā āxšnav-
 30 *āhy utā viθiyā utā spāθma-*
idayā aitamaiy aruvastam
upariy manasč[ā uši]čā ima patimai-
y aruvastam tyamaiy tanuš tāvaya-
t[i]y hamaranakara a(h)[m]iy (h)ušhamaranakara hakara-
 35 *mčiy ušiyā gā[θa]vā vainātaiy yačiy*
vaināmiy hamissiyam yačiy naiy vainā-
mīy utā ušibiyā utā framānāyā
adakaiy fratara maniyaiy aruvāyā (?) ya-
dīy vaināmiy hamissiyam yaθā yadiy
 40 *naiy vaināmiy yāumainiš a(h)mīy u-*
tā dastaiyiyā uta pādaibiyā asabā-
ra (h)uvāsabāra a(h)mīy θanuvaniya (h)uθa-
nuvaniya a(h)mīy utā pastiš utā
asabāra aršt[i]ka a(h)mīy (h)uvārštika
 45 *utā pastiš utā asabāra utā (h)uvnarā*
tyā a(h)uramazdā [upa]r[iy mā]m niyasaya utā-
dīš atāvayam brtanaiy vašnā a(h)uramazdāh-
ā tyamaiy krtam imaibiš (h)uv[naraibi]š aku-
navam tyā mām a(h)uramazdā upariy niyasaya
 50 *marikā daršam azdā kušuva [čiy]ākaram*
a(h)m[i]y čiyākaramčamaiy (h)uv[narā ē]iyākara-
mčamaiy pariyanam mātaiy [durux]tam
θadaya tyataiy gaušāyā [āxšnūtam] avaš-
čiy āxšnūdiy tya prta[.]ti

- 55 *y marīkā mātaiy avaš[čiy]uš*
kunavātaiy tya [manā krtam as]tiy
avaščiy dīdīy yačiy [.] mā
[ta]iy mā [.] ātiy
ā aya[uma]iniš bavātiy [. xšāya]θiya
- 60 *mā raxθatuv [.] iš*

Le grand dieu est Ahuramazdā, qui a créé ces merveilles que l'on voit, qui a créé le bonheur pour l'homme, qui a répandu la sagesse et l'adresse (corporelle) sur Darius roi.

Ainsi proclame Darius roi : " Par la volonté d'Ahuramazdā je suis ainsi (fait) que je suis ami du juste, que je ne suis pas ami de l'injuste. Il ne me plaît pas que le faible souffre tort à cause du puissant ; il ne me plaît pas que le puissant souffre tort à cause du faible. Ce qui est juste, voilà ce qui me plaît. De l'homme menteur je ne suis pas ami.

Je ne suis pas emporté. Ce qui me met en colère (?),¹ je le contiens fortement par ma volonté. De moi-même² je suis fortement maître.

L'homme qui s'emploie pour aider, je le récompense selon son mérite.³ Celui qui nuit, je le châtie selon sa nuisance. Il ne me plaît pas qu'un homme nuise. Il ne me plaît pas non plus que, s'il nuit, il soit pas châtié.

L'homme qui parle contre un homme, je n'y ajoute pas foi jusqu'à ce qu'il entende la sentence équitable (?).⁴

Ce qu'un homme fait ou fournit selon sa force, cela me contente, me plaît beaucoup et me satisfait.

Et telles sont mon intelligence et ma sagesse.

Quand tu vois ou entends ce que j'ai fait dans le pays et en campagne, cela est (preuve de) mon adresse (corporelle), en plus de mon esprit et de mon intelligence.

¹ D'après l'akkadien. La restitution de la forme perse *.rtanayā* est indécise.

² Contrairement à Herzfeld et à Kent, je rattache *manahā*, qui est un instrumental, non un génitif, à ce qui précède, non à ce qui suit. Si *manahā* dépendait de *xšāyamna*, on aurait dans (*h*)*uvaipašīyahyā* une redondance inutile.

³ Le contexte impose ce sens quelle que soit la lecture adoptée, *hukrta* ou *hukrpa*. De toutes manières il y a un redoublement fautif de *r*.

⁴ Sur cette interprétation, cf. plus loin p. 49.

Voici aussi l'adresse dont mon corps dispose.¹ Comme combattant, je suis bon combattant. Et une fois qu'il apparaît sur place, par l'intelligence, ce que je considère comme ennemi et comme non ennemi, tant par l'intelligence que par la sagesse, — alors, étant supérieur, c'est grâce à mon adresse (?) que je décide si je considère l'ennemi comme non ennemi.²

Je suis exercé (?) des mains et des pieds. Comme cavalier, je suis bon cavalier. Comme archer, je suis bon archer, à pied comme à cheval. Comme lancier, je suis bon lancier, à pied comme à cheval. Et les capacités qu'Ahuramazdā a répandues sur moi et que j'ai eu la force de porter,³ par la volonté d'Ahuramazdā, ce que j'ai accompli, c'est par ces capacités qu'Ahuramazdā a répandues sur moi que je l'ai accompli.

O sujet! fais fortement connaître quel je suis et quelles mes capacités et quelle ma supériorité!⁴ Que cela ne te semble pas [mensonger]⁵ ce que tu entends de tes oreilles. Entends ce qui t'est [enjoint ?].

O sujet! que cela, il fait
Et vois ce qui Ne

xšnav-

L'inscription *b* de Naqš i Rustam nous donne, du verbe "entendre", des formes qui, dûment interprétées, éclairent l'origine si controversée de pers. *šnūdan*. C'est un vieux débat qui se ranime. On avait supposé depuis longtemps que phl. et pers. *šnū-* remontaient à un v.p. **xšnav-* confirmé par av.

¹ Je relie *tyamaiy* à ce qui précède, contrairement à Herzfeld et à Kent. Même interprétation chez Schaefer, l.c. Noter en outre que la phrase ainsi entendue forme deux octosyllabes réguliers: *ima patimaiy ar(u)vastam | tyamaiy tanuš tāvayatiy*.

² Traduction justifiée ci-dessus p. 47.

³ Pour la construction, cf. l. 33. *Brtañaiy* ("ausbilden" Herzfeld; "to use" Kent) me paraît garder le sens ordinaire du verbe.

⁴ *pariyanam* est un dérivé en *-ana-* de l'adverbe *pariy*; pour la formation, cf. skr. *antar-ana-*, *sam-ana-*. Le sens de "supériorité" propre à *pariy* est établi par phl. *pērōz* "victorieux" < **pari-aušah-*. Ceci précise les indications de Herzfeld 273 et Kent 173.

⁵ A titre de conjecture je lis [*durux*]tam. La restitution semble combler a lacune et se fonde sur B. § 58 *mātya* *duruxtam maniyā[taiy]*.

xšnav-. Mais le verbe avestique *xšnav-* signifie seulement "satisfaire" et ce sens fait obstacle à un rapprochement qui, sans cette difficulté, se fût imposé immédiatement. On a donc imaginé d'expliquer *šnū-* par un croisement de *xšnav-* "satisfaire" et de *srnav-* "entendre",¹ construction hypothétique dont Hübschmann dénonçait déjà la fragilité.² D'autres ont voulu établir une filiation directe de *šnū-* à *srnav-* (skr. *śṛṇoti*), posant phl. *ušnav-* < **abi-srnav-*,³ ce qui implique un procès phonétique sans autre exemple. A toutes ces restitutions il manquait l'appui des formes perses achéménides.

Ces formes nous sont maintenant connues et assurent une donnée importante : le verbe est bien *xšnav-*. Mais en même temps apparaît une complication imprévue. Dès le vieux-perse *xšnav-* possède ensemble les deux sens qui paraissent inconciliables, "entendre" et "satisfaire". D'une part on a *āxšnavāhy* "tu entends"; imp. *āxšnūdiy* "entends"; de l'autre *āxšnautiy* "il satisfait"; ptcp. *xšnūta-* "satisfait"; adj. (*h*)*uxšnavš* "bien content". Ce n'est donc plus entre le vieux-perse et l'avestique que passerait la frontière séparant les deux sens de *xšnav-*; il faudrait les admettre concurremment en vieux-perse.

On n'aura chance d'y voir clair qu'en précisant les termes du débat. Ceci du moins est acquis qu'il faut exclure tout recours à un ancien *srnav-*.⁴ Nous devons poser exclusivement en vieux-perse *xšnav-*, identique à la forme avestique. Ce thème iranien *xšnav-* s'apparente à *xšnā-* (skr. *jñā-*) comme *stav-* (*stūnā-*, v.sl. *staviti*, etc.) à *stā-*, comme °*gav-* (skr. *agre-gav-* "qui va en tête") à *gā-*, etc. Un rapport réel unit les significations : *xšnā-* "connaître, reconnaître" n'est

¹ Bartholomae, Wb. s.v. *xšnā-*, n. 2; Nyberg, *Hilfsb.* II, p. 25, s.v. *ašnūtan*.

² Hübschmann, *Pers. Stud.*, p. 82.

³ Ainsi Henning, *ZII.* IX, p. 202; Ghilain, *Essai sur la langue parthe*, 1939, p. 85.

⁴ A plus forte raison ne peut-on pas faire remonter phonétiquement la forme *xšnav-* à une "infixation nasale" de *srav-*, comme le veut Herzfeld *Alt Pers. Stud.*, p. 239.

originellement pas très éloigné de *xšnav-* dont le sens premier est "reconnaître comme légitime ou justifié, admettre avec faveur". Ce sens s'observe nettement en avestique dans des passages comme ceux-ci où *xšnav-* est justement associé à *srav-* "entendre"; Y. LXVIII 9 *surunuyā nō yasnəm . . . xšnuyā nō yasnəm* "écoute notre prière; admets en grâce notre prière" (même formule Yt X 35 avec *yasnahe* gen.). De là aussi le neutre *xšnaoθra-* (phl. *šnōhr*, arm. *šnorh*) "fait d'accueillir avec faveur" et simplement "faveur" (témoignée ou reçue). Le sens de *xšnav-* "admettre favorablement, accorder satisfaction" s'est fixé ainsi en "satisfaire" et s'est dit indifféremment de celui qui accorde la faveur comme de celui qui la reçoit (cf. aussi av. *xšnūt-*, *xšnūti-*, etc.). Dès lors tout lien était rompu entre *xšnā-* et *xšnav-*, et les deux verbes ont évolué indépendamment.

Cette interprétation ne tient pas encore compte des formes perses qu'il nous faut maintenant considérer pour elles-mêmes. Le texte NR b en fournit les exemples suivants: *yaθā vaināhiy yadivā āxšnavāhy* "si tu vois ou tu entends" — *avašciy āxšnūdiy tya . . .* "écoute ce que . . .". Mais le troisième exemple du présent est traduit autrement: *yātā (h)uradanām ha(n)dugām āxšnautiy* "er gehorcht" (Herzfeld); "he satisfies" (Kent). On ne voit pas ce qui justifie cette déviation. Il faut garder au verbe le même sens et traduire: "jusqu'à ce qu'il entende la sentence équitable"¹ (quel que soit l'usage ou la règle juridique visé par cette prescription). En revanche le participe *xšnūta-* signifie certainement "satisfait" et le composé de restitution probable *(h)u[xšna]uš* doit se traduire "bien contenté" (cf. av. *hu-xšnūti-* et pers. *xušnūd* "content").

Si donc on constate en vieux-perse une différence nette

¹ Sens probable de *(h)uradanā-*. De l'expression *(h)uradanām ha(n)dugām*, d'autres traductions ont été données: "dem gute-regel-gebenden testament" (Herzfeld); "the Ordinance of Good Regulations" (Kent). Tout cela restera incertain tant que nous ne saurons pas à quoi Darius fait allusion. Le mot *ha(n)dugā-* qui ailleurs signifie "édit, proclamation" me paraît désigner ici la sentence proclamée, ce qui s'accorde bien avec le sens de *āxšnautiy*.

entre *xšnūta-* “satisfait” et *āxšnav-* “entendre”, il est clair que cette différence est liée à l’emploi du préverbe *ā-*. D’après *xšnūta-*, *huššnauš*, le verbe v.p. *xšnav-* a signifié “accueillir favorablement, contenter”, comme en avestique. Ce qui appartient en propre au perse est la forme à préverbe *ā-xšnav-*, littéralement “accueillir favorablement en soi”, qui a pris le sens de “entendre”. A en juger par les faits nouveaux, *xšnav-* et *ā-xšnav-* étaient aussi distincts l’un de l’autre que le sont par exemple, avec une autre image, fr. *tendre* et *entendre*.

Désormais fixée, cette différence s’est maintenue en moyen-perse où l’on a d’une part *šnōhr* “faveur”, de l’autre *āšnūtan* “entendre”. Puis les formes verbales de *šnū-* disparaissant, le composé *ā-šnū-* qui ne s’opposait plus à un verbe simple a pu se réduire à *šnū-* “entendre” (pers. *šunūdan*). Cette simplification était peut-être facilitée par la confusion entre le préverbe *ā-* et la prothèse *a-* devant groupe consonantique. Dans l’histoire complexe du verbe “entendre” en iranien où interviennent encore, selon les dialectes, plusieurs autres racines (*gauš-* et *srav-* notamment),¹ l’emploi de *ā-xšnav-* en vieux-perse servira désormais à fixer un critère dialectal.

UN EMPLOI DE L’OPTATIF

Le § 13 de l’inscription de Bisutun (I 50 sq.) rapporte que Gaumāta, qui avait usurpé la royauté sous le nom de Brdiya, maintenait son autorité par la terreur: *kārašim hačā daršam atrsa kāram vasaiy avāžaniyā avahyarādiy kāram avāžaniyā mātyamām xšnāsātiy tya adam naiy brdiya a(h)mīy* “Le peuple le craignait fort. Il pouvait tuer beaucoup de gens (qui connaissaient auparavant Brdiya). Pour cette raison il pouvait tuer des gens “pour qu’il(s) ne reconnaisse(nt) pas que je ne suis pas Brdiya” (cf. *Gramm.*² § 243).

Mais il y a ici discordance entre le sens attendu et celui que l’emploi de l’optatif confère à la phrase. L’optatif “il pouvait tuer” semble restreindre étrangement l’effet de la

¹ Peu claires sont les formes à *-i-*, phl.T. *’xšyd-*, jud.pers. *āšnūdan*, et aussi pers. *šaniḍan*. Cf. Henning, *ZII*. IX, p. 201.

menace. Il ne suffirait pas que Gaumāta *pût* tuer ceux qui connaissaient son identité véritable ; pour susciter pareille soumission et pour réduire au silence ceux qui auraient dévoilé son imposture, il devait tuer effectivement. Et c'est bien ce que disent les deux autres versions : " il tuait, " non " il pouvait tuer ". Weissbach relève brièvement cette différence (p. 19, n. f), mais il maintient l'optatif comme potentiel, faute apparemment de voir quel autre sens lui donner.

Une solution devient possible dès qu'on reconnaît à l'optatif, dans le cas présent, un emploi qui n'avait pas encore été constaté en perse : *avājanīyā* est un optatif " de la répétition dans le passé ". Cette catégorie est bien représentée en avestique par une série d'exemples tels que *miθrəm yō avarōit* (= *abarōit*) *vāčim* " Miθra qui élevait la voix " (cf. Reichelt § 638). C'est à tort que Bartholomae, suivi par Reichelt, a voulu expliquer ces formes comme des aoristes athématiques de présents en *-aya-*. Ce sont bien des optatifs et qui d'ailleurs ont abouti à constituer des prétérits dans plusieurs dialectes de l'iranien moyen et moderne.¹

Nous traduisons donc : " Le peuple le craignait fort. Gaumāta tuait beaucoup de gens qui auparavant connaissaient Brdiya ; pour cette raison il tuait des gens, pour que . . . etc. "

Cette rectification qui procure un sens satisfaisant en soi et précisément celui que postulent les versions parallèles, révèle en vieux-perse un emploi hautement instructif de l'optatif qui semblait limité à l'avestique et qu'on est désormais en droit de reporter à l'iranien commun.²

hadā

Rien de plus simple que la traduction de Dar. Pers. e 8 *imā dahyāva tyā adam adaršiy hadā anā pārsā kārā* " (es sind) diese Länder, die ich in Besitz nahm mit diesem persischen Heere " (Weissbach) — " voici les pays dont j'ai pris possession avec (l'aide de) cette armée perse " (cf. *Gramm.*² p. 213, § 368).

¹ Cf. provisoirement Couvreur, *BSL*. XXXIX, 1938, pp. 247 sqq. Le problème sera à reprendre.

² Faits parallèles — de date récente — en indien : J. Bloch, *MSL*. XXIII, p. 108, et Renou, *Gramm. skr.*, § 292, p. 412.

Suit une énumération des vingt-trois pays — dix à l'ouest, treize à l'est — qui composent l'empire. Mais à la réflexion, on s'étonne que Darius, contre son usage, ne mentionne pas la Perse en tête des provinces ; et aussi qu'il signale l'aide de " cette armée perse " seule, alors qu'il parle ailleurs de " l'armée perse et mède " (B. II 18 ; III 30).

C'est que la traduction des mots *hadā anā pārsā kārā* doit être corrigée en fonction du sens constant de *hadā* " avec ". Cette préposition n'a jamais, en vieux-perse ni en avestique, le sens d'instrument (" au moyen de "), mais toujours et seulement le sens sociatif (" en même temps que ") qui est susceptible de devenir adversatif à l'occasion (" combattre avec = contre "). Un exemple suffira : *dādršiš hadā kārā ašiyava hamaranam akunauš hadā mārgavaibiš* " Dādršiš marcha avec l'armée ; il livra bataille avec les Margiens " (B. III 15). On peut s'assurer par les listes d'exemples chez Bartholomae que av. *hada* n'a aussi qu'un emploi sociatif.

On est donc amené, en restituant à *hadā* sa fonction et à *kārā* son sens général de " peuple ", à entendre : " Voici les pays que j'ai pris en possession avec (= en même temps que) ce peuple perse. " Le sens est alors tout autre. Ce " peuple perse ", c'est simplement le premier des pays dont la liste se poursuit par " l'Elam, la Médie " etc. Si cette énumération, contrairement à l'usage, ne s'ouvre pas par le nom de la Perse, c'est que le pays vient d'être mentionné à part sous les espèces de son peuple.

La grammaire seule imposerait déjà ce sens. S'il en fallait une confirmation, on la trouverait dans une autre expression de la même idée qui se lit Dar. NRa 17 et Pers. e 16-17. Les deux formules peuvent se superposer

Pers. e *imā dahyāva tyā adam adaršiy hadā anā pārsā kārā*
 NRa 17 *imā dahyāva tyā adam agrbāyam apataram hača pārsā*
 Dans le premier cas, Darius dit : " Voici les pays que l'ai pris en possession en même temps que la Perse. " Dans le second : " Voici les pays que j'ai pris outre la Perse. " Et pareillement la liste des provinces se déroule, à partir de Médie, Elam, etc. La preuve est faite que *hadā* " avec,

en plus de ” équivaut à *apataram* “ en dehors de, outre ”.

Darius n'emploie pas sans raison *kāra pārsa* au lieu du nom de pays *pārsa*. L'expression anticipe sur les prescriptions finales du même texte où sont tracés au roi ses devoirs à l'égard du “ peuple perse ” : *imam pārsam kāram pādīy yādīy kāra pārsa pāta ahatīy* “ protège ce peuple perse ! Si le peuple perse est protégé . . . ”. L'expression a même sens d'un bout à l'autre du texte, où règne une constante pensée.

čašman

Le nom perse de l'“ œil ” est donné sous la forme *učašma* (B. II 75, 89) avec un *u-* initial qui n'a pas cessé de tourmenter les étymologistes. Après Weissbach, Meillet l'a interprété par (*h*)*u-*, l'“ œil ” étant désigné comme le “ bon œil ” (*MSL.* XIX, p. 348) et cette explication, faute de mieux, a été maintenue dans la *Gramm.*², pp. 162, 168, 179. Elle n'a pas satisfait J. Wackernagel (*KZ.* LXI, p. 205) qui a voulu hardiment voir dans *u-* le préverbe, séparé par tmèse, de *avašam* ; de quoi, à son tour, il n'a convaincu personne.

Nous n'irons pas forger une nouvelle explication pour une forme qui, il faut le dire, est proprement inexplicable. Mais sommes-nous astreints à rendre compte de cet énigmatique *u-* ? Est-ce une réalité indiscutable ? Au vrai la première lettre *u-* est une restitution de Weissbach (*ZDMG.* LXI, p. 726) qui s'est peu à peu imposée comme une donnée de fait. Weissbach lui-même a marqué discrètement son intervention dans la lecture en l'imprimant “ *učašma* ” avec un *u-* signalé comme incertain. Que porte la pierre ? King et Thompson, qui ont révisé soigneusement sur place le texte entier, donnent [*učša*]m (B. II 75) et [*u*]cšam (B. II 89). Dans aucun des deux endroits ils n'ont constaté de *u-* initial, et s'ils l'ont introduit en restitution, c'est en vue d'un rapprochement — évidemment erroné — avec skr. *akṣa-* (p. 36, n. 5).

Il y a un témoignage bien plus explicite, celui de l'iraniste A. V. W. Jackson, qui, lui aussi, avait examiné la pierre à cet

endroit. Il s'est prononcé à ce sujet dans une note qui, mêlée à d'autres très diverses (*IF.* XXV, 1909, p. 182), n'a pas retenu l'attention, et c'est grand dommage. Reproduisons-en la partie essentielle :

"... The more I consider the subject and the more I examine my own notes made when I was up on the rock, the more convinced I am that there is a mistake about there being sufficient space for a letter *u* before the three almost illegible characters ?šm, and I feel sure that the supposed *u* is but a part of the word-divider, and that we should revert for čšm (č^aš^am^a) to the familiar reading čašma already assumed by Spiegel, *Die altpersischen Keilinschriften*², p. 21 n., 218. . . . On the whole, therefore, I believe we are fully entitled to accept for Old Persian the occurrence of the noun čašman- 'eye', matching av. čašman-, phl. čašm, Mod. Pers. čašm. . . ."

L'observation de Jackson a eu ce sort malheureux de tomber dans l'obscurité au moment même où Weissbach achevait son édition des textes achéménides.¹ Sans ce hasard, la forme correcte se fût aussitôt imposée. Nous devons lire simplement čašma, sans aucun préfixe. Le nom de l'"œil" a en vieux-perse la forme qu'il a toujours eue et qu'il garde encore dans l'iranien entier, de l'av. čašman au pers. čašm. Il importe donc, en dénonçant expressément cette pseudo-forme, de purger l'épigraphie et l'étymologie perses d'un pseudo-problème, et de couper court par avance à toute nouvelle tentative d'explication.²

yaθā

Après avoir énuméré les mesures qu'il a prises pour restaurer tout ce que Gaumāta avait détruit ou détourné, Darius conclut : *adam hamataxšaiy . . . yaθā gaumāta hya maguš*

¹ Weissbach n'en fait mention que dans les Addenda de son édition (p. 159) et par ces simples mots : " Jackson *IF* 25, 182 f. glaubt jetzt, dass im Original einfach čašma steht." Cette mention même a passé inaperçue.

² Je crois cet avertissement d'autant plus nécessaire que, en 1942 encore, W. Hinz, *Altpersischer Wortschatz*, p. 136, se contente d'enregistrer [(h)u]čašma en ajoutant "Ergänzung Weissbachs", sans mentionner aucune des explications proposées et sans connaître la note de Jackson.

viθam tyam a(h)māxam naiy parābara (B. I 70). En 1911 Weissbach traduisait comme faisait déjà Bartholomae (Wb. 1245) : "Ich gab mir Mühe, bis (es wurde, als ob) Gaumata der Magier unser Haus nicht weggebracht hätte." En 1938, E. Herzfeld entend de même : "Ich arbeitete bis (es so war) als ob . . ." (*Altpers. Inschr.*, p. 323). Ne laissons pas plus longtemps s'accréditer cette traduction, et justement parce que l'inexactitude ne s'en voit pas au premier regard.

Cette interprétation n'arrive à rejoindre le texte que par un détour : il faut suppléer un "als ob" qui annule, en le projetant dans l'imaginaire, un fait posé cependant comme réel par le mode du verbe (*parābara*). Weissbach a été contraint à cet expédient pour rendre admissible une phrase dont la teneur littérale eût été : "je me suis efforcé jusqu'à ce que Gaumāta n'eût pas enlevé notre maison." Mais une pareille phrase serait aussi peu recevable en perse que dans nos langues, et la syntaxe achéménide n'use pas d'artifices pareils.¹

Pour retrouver le sens vrai, qui est simple, il faut observer que Weissbach a confondu ici *yaθā* avec la conjonction *yātā*. Entraîné par la phrase précédente *adam hamataxšaiy yātā . . . avāstāyam* "je me suis employé jusqu'à ce j'aie eu rétabli . . .", il a traduit, dans la présente phrase, *yaθā* qui signifie "ainsi, de telle manière" comme s'il y avait *yātā* "jusqu'à". Le sens est alors facile à rétablir, et la phrase se traduira : "Je me suis employé de telle sorte que Gaumāta le mage ne déposséda pas notre maison." C'est bien ce que disent aussi les deux autres versions ; élam. "I laboured . . . so that our house was not removed by reason of Gaumāta, the Magian" ; akkad. "[I . . .] so that this Gaumāta, the Magian, did not wrest away our house" (King-Thompson, pp. 105, 169). Tout est ainsi en ordre. L'affirmation de Darius pose la con-

¹ Inexacte aussi est la trad. Tolman : "I labored . . . that Gaumata the Magian might not take away our royal house," qui fait de *parābara* un conditionnel d'éventualité. Le sens correct a déjà été indiqué *Gramm.*² § 413, p. 249.

clusion que tout le développement préparait. Au terme des efforts qu'il a employés à restaurer l'ordre ancien, Darius peut proclamer comme un fait acquis : " Gaumāta n'a pas dépossédé notre maison."

Il faut donc prendre *yaθā*, toujours et partout, dans le sens exclusif de " comme ; de manière que . . .". Cette règle vaut pour l'iranien entier. Bartholomae avait bien forgé un emploi de *yaθā* " renvoyant au passé et contredisant la réalité " (Wb. 1245). Mais il n'a pu le fonder que sur un exemple unique, celui précisément qui vient d'être examiné. En avestique non plus qu'en vieux-perse, *yaθā* n'a jamais pour fonction d'énoncer une condition irréaliste. Nous ne suivrons donc pas M. Herzfeld quand il essaie à son tour (op. cit. p. 362) de justifier " als ob ". Outre le présent passage, il allègue deux exemples, l'un et l'autre à tort : *adam akunavam yaθā aniya aniyam naiy řatiy* (Dar. Suse e 15) signifie simplement : " j'ai agi de manière que l'un ne frappe pas l'autre." Sur le second fait, il faut prévenir toute équivoque : *yadiy vaināmiy hamissiyam yaθā yadiy naiy vaināmiy* signifie en effet " si je vois un ennemi comme si je ne le vois pas " (NR b 38) ; mais c'est *yaθā yadiy* qui veut dire " comme si " (*yaθā* " comme " + *yadiy* " si "), non *yaθā* seul. Par ailleurs, contrairement à l'affirmation du même auteur, il n'existe aucun passage des Gāthās où *yaθā* doive s'entendre " velut si, als ob " : on s'en convaincra facilement en parcourant les listes d'exemples de Bartholomae (col. 1240 sq.) qu'il n'est ni possible ni utile de reproduire ici.

aniya-

L'adjectif *aniya-* " autre " a en vieux-perse tous les emplois que son sens lui confère normalement, avec des fonctions énumérative, réciproque, etc. qui n'appellent aucun commentaire. Mais on admet que, dans deux passages, le mot " autre " signifie " ennemi ", et c'est par " ennemi " que toutes les traductions le rendent : Dar. Pers. e 9 *haća aniyānā mā trsam* " je ne veux craindre aucun ennemi ; vor keinem Feinde will ich mich fürchten " (Weissbach) ; Dar. Pers. d 11 *iyam*

dahyāuš pārša . . . hačā aniyānā naiy trsatiy “ ce pays de Perse ne craint aucun ennemi ; fürchtet sich vor keinem Feinde ”.¹ Ces deux inscriptions de Persépolis ne sont connues qu’en rédaction perse. Il n’y a donc pas de secours à attendre d’autres versions pour la solution de la difficulté que nous soulevons ici.

Car c’est une difficulté. Nulle part ailleurs en iranien ancien ou moderne, non plus qu’en indien, *an(i)ya-* n’est pris au sens d’“ ennemi ”. On concevrait à la rigueur pareille acception si le rédacteur s’était cru tenu à la litote. Mais Darius ne s’exprime pas à demi-mot, et le contraste est singulier de cette fière proclamation, qui a le ton d’une bravade, avec une désignation atténuée.

Les deux exemples sont curieusement pareils. Ils associent *aniya-* au verbe *trsa-* “ trembler, avoir peur ”. Que signifie l’expression *hačā . . . trsa-* ? La question n’est pas si oiseuse qu’elle semblerait. Que veut dire Darius quand il affirme qu’un homme ou un peuple “ a eu peur ” de lui ? De quoi cette peur est-elle le signe ? Revoyons tous les exemples de l’expression dans leur contexte entier. Le peuple avait grand peur de Gaumāta (*kārašim hačā dršam atrsa* B. I 50) et restait soumis à son pouvoir. — Au moment où Martiya essayait de soulever l’Elam, Darius était à proximité² de ce pays. “ Alors les Elamites eurent peur de moi (*hačāma atrsa* B. II 12) ; ils se saisirent de Martiya et le mirent à mort. ” — “ Voici les pays qui ont eu peur de moi (*tyā hačāma atrsa*) et qui m’ont payé tribut ” (Dar. Pers. e 9). — Les peuples qui se battaient sont maintenant en paix. “ Ils ont peur de ma loi ” (*hačā avanā trsantiy* Dar. Suse e 38).

Nous n’avons jamais une expression telle que : “ il a eu peur de moi et il s’est enfui. ” La conséquence de cette “ peur ” est toujours la *soumission et l’obéissance*. Le sens de l’expression apparaît alors : *hačāma atrsa* “ il a eu peur de moi ” équivaut en fait à “ il a reconnu mon autorité et s’y est soumis ”.

¹ Ainsi aussi Tolman (“ enemy ”), Herzfeld, *Alt pers. Inschr.* p. 73 et Hinz, *Alt pers. Wortschatz*, 1942, p. 52 „ Feind ”.

² Tel est certainement le sens d’*ašnaiy* (Herzfeld, p. 98).

Cette crainte marque, de la manière qui sied au peuple et à l'époque, la révérence qu'on doit au pouvoir légitime.

Revenons maintenant aux deux exemples litigieux de *aniya-* puisqu'ils mettent en jeu la même locution, et d'abord à Pers. e : " Ce pays de Perse qu'Ahuramazdā m'a accordé, . . . par la volonté d'Ahuramazdā et (celle) de moi le roi Darius, *il ne craint aucun autre.*" Non pas " il ne redoute aucun ennemi ", mais " il ne reconnaît l'autorité de personne autre (qu'Ahuramazdā et moi-même) ". Comme dans les exemples précédents, la " crainte " n'est pas la peur physique d'un danger, mais le sentiment de soumission à l'égard de l'autorité. En conséquence, *aniya-* signifie simplement, comme partout, " autre. "

Plus instructif encore est le dernier exemple. L'inscription Pers. e fait partie d'une série de quatre textes (*d, e, f, g*) gravés sur le mur sud de la terrasse de Persépolis. Darius s'adresse, sans le désigner, au souverain qui habitera le palais et lui prescrit ses devoirs envers le peuple perse, dans une phrase que nous donnons maintenant en traduction rectifiée : " Si tu penses ' Que je ne craigne aucun autre ! ', défends ce peuple perse. " Chacune de ces deux propositions est de sens prégnant. " Que je ne craigne aucun autre (*haça aniyānā mā trsam*) " signifie " Qu'aucun autre ne m'impose son autorité ". Pour réaliser ce souhait, c'est-à-dire pour n'avoir pas à reconnaître un pouvoir étranger sur un de ses pays, en particulier celui d'un rebelle ou d'un usurpateur, le souverain doit " garder " le peuple perse (*imam kārām pārsam pādīy*), le garder de l'esprit de mensonge (*drauga*), qui détournerait de lui la protection d'Ahuramazdā et le vouerait à la triple calamité : invasion, famine, impiété. La prescription trouve son meilleur commentaire dans un passage de l'inscription de Bisutun, où Darius lance un appel au roi futur, pour conclure l'exposé de ses campagnes victorieuses et en tirer la leçon (§ 55) : " O toi qui un jour seras roi ! garde-toi fort du mensonge (*drauga*) ! l'homme qui sera ' menteur ' (*drauṣana*), châtie-le bien si tu penses : ' Que mon pays soit intact ' ! " Ici et là le sens du conseil est le même. A Bisutun,

“ que mon pays soit intact (*duruvā*) ” ou, à Persepolis, “ que je ne craigne pas un autre, ” cela revient à proclamer un principe identique : aucun autre pouvoir ne doit se dresser en face du mien. Il faut donc réprimer l'esprit de mensonge (*drauga*) qui anime la rébellion, pour maintenir l'“ intégrité ” du peuple perse. Ainsi se prépare la conclusion (Pers. e § 3) : si le peuple perse est gardé, le roi verra descendre sur sa maison ce bonheur (*šiyāti*) qui est la récompense terrestre de la piété selon les voies d'Ahuramazdā. Car c'est à raison même de la révérence qu'il doit à Ahuramazdā que le peuple reconnaîtra la souveraineté exclusive du souverain légitime. Cette affirmation de légitimité, consacrée par la volonté d'Ahuramazdā, a été le plus constant souci de Darius.

Pour revenir à notre point de départ : aucune déviation ne doit être admise quant au sens de *aniya-* qui signifie seulement “ autre ” dans tous ses emplois connus.¹

FORMES PERSES EN ELAMITE

Il arrive que la version élamite ne traduise pas, mais se contente de transcrire des mots ou même des expressions entières du texte perse. Et dans certaines de ces transcriptions se conservent des détails précieux.

En voici un qui, quoique relevé incidemment par Weissbach (p. 61, n. f), a échappé à l'attention. La phrase *dahyāušmaiy duruvā ahatiy* “ que mon pays soit indemne ” (B. § 55) se trouve transcrite en élamite avec une variante intéressante : *da-a-ya-u-iš-mi tar-ma aš-du*, c'est-à-dire *dahyāušmaiy duruvā astuv*. Le subjonctif *ahatiy* a été remplacé par un impératif *astuv* non encore attesté en vieux-perse, mais évidemment postulé par la comparaison et qui s'incorpore désormais au paradigme de “ être ”. Cette substitution confirme que le subjonctif *ahatiy* a bien valeur modale, et non valeur temporelle de futur, comme le pense Weissbach.

Du même verbe “ être ”, nous avons la 1^{re} sg. du subjonctif

¹ Cette discussion indique assez pourquoi je ne puis adhérer aux remarques de Herzfeld (op. cit. pp. 72 sq.) sur *aniya-*. L'exemple B. I 95 doit aussi s'interpréter par “ autre ”. Je traduis : “ le reste de l'armée rebelle se jeta (ou fut jeté) à l'eau ; l'eau l'emporta. ”

transcrite en élamite dans l'inscription de Xerxes contre les daivas ; l'expression *šiyāta ahanīy* "puissé-je être heureux" est simplement reproduite en *ša-ta ha-ni*. La forme *ša-ta* qui contraste avec la transcription *ši-ya-ti-iš* fidèlement calquée sur la forme écrite v.p. *šiyātiš* (élam. Dar. Elv. et Sz. c), indique que, dans la prononciation, *šiyāta* se réduisait à *šāta* (cf. av. *šāta*), ce qui est confirmé par les transcriptions grecques telles que *Παρύ-σατις* et *Σατι-βαρζάνης*. La graphie *tar-ma* pour *duruwā* semble attester une prononciation *drwā*. — Quant à *ha-ni* pour *ahanīy*, on serait tenté d'abord de n'y voir qu'une aphérèse de la voyelle initiale, *ahanīy* réduit à **hanīy*. L'explication a chance d'être moins simple et, si elle est juste, plus instructive. Si l'on remarque que l'élamite transcrit régulièrement *ha-* un *a-* initial perse (*har-ri-ya* = *ariya* ; — *ha-ri-ik-ka* = *arika* ; *ha-na-ma-ak-kaš* = *anāmaka* ; — *ha-du-kan-na-iš* = *adukaniš*, etc.) il est permis de supposer que *ha-ni* représente une forme perse **ānīy*, contraction de *ahanīy*, de même que le nom de mois *tu-ir-ma-ir*, qui transcrit v.-p. *θuravāhara*, suppose une forme contracte **θuravāra*. De pareilles discordances de détail aident à mesurer l'écart entre les formes écrites et la prononciation réelle.

On connaît le contraste dialectal de v.-p. *vispazana* (forme en réalité mède) et de la transcription élamite *mi-iš-ša-da-na* = *visadana* (forme perse phonétique). Mais le mot perse *dana* existe hors de ce composé. Il se trouve dans la version élamite d'un des exemples de la formule *xšāyaθiya dahyūnām paruzanānām* "roi des pays aux nombreuses races". En général *paruzanānām* est transcrit *par-ru-za-na-iš-be-na* avec la désinence du gén. plur. élamite (cf. Dar. NRa § 2 ; Xerx. Van § 2). Mais dans Xerx. Pers. c, le texte perse donne le composé écrit en deux mots : *paruw zanānām*, et cette fois l'expression est traduite (*sunkuk da-a-hu-iš-be-na*) *ir-še-ik-ki-ip-in-na da-na-iš-be-na*. Le gén. plur. *ir-še-ik-ki-ip-in-na* sert à rendre v.-p. *parūnām* dans (*aivam*) *parūnām (xšāyaθiyam)* "seul roi de nombreux hommes". En employant l'expression *ir-še-ik-ki-ip-in-na da-na-iš-be-na*, l'élamite traduit comme si le modèle avait porté (*xšāyaθiya dahyūnām*) **parūnām*

zanānām. Le gén. plur. *da-na-iš-be-na* atteste ainsi l'existence du mot perse *dana* en emploi indépendant.

āha et *āhantā*

C'est une particularité curieuse de la flexion du verbe "être" en vieux-perse que la 3e personne du pluriel du prétérit y possède deux formes, active et moyenne, *āha* et *āhantā*, valables apparemment dans les mêmes emplois; coexistence où l'on a vu la preuve d'un flottement morphologique et l'indice d'un état de langue encore mal fixé (*Gramm.*² p. 7).

Mais les formes *āha* et *āhantā* sont-elles réellement équivalentes et interchangeable? Cette singularité d'une flexion moyenne introduite partiellement dans le verbe substantif doit nous engager à un examen attentif des valeurs syntaxiques. Nous considérerons successivement tous les exemples de l'une et de l'autre forme.

Voici d'abord ceux de *āha*. Ils se présentent pour la plupart dans la formule de datation *X. māhyā X. raučabiš θakatā āha* "du mois X. tant de jours étaient passés (B. I 38, 42, 56, 90, 96; II 27, 36, 42, 47, 56, 70, 98; III 19, 40, 47, 63, 69, 89). En outre: *VIII manā tau(h)māy[ā tyai]y [pa]ruvam xšāyaθiyā āha* "huit de ma lignée auparavant ont été rois" (B. I 10); *tyaiy paruwā xšāyaθ[iyā y]ātā āha* "les rois antérieurs, aussi longtemps qu'ils ont été" (B. IV 51); *ēiyakaram [āha a]vā dahyāva* "combien nombreux étaient ces pays" (NRa 39).

Mettons en regard ceux de *āhantā*. D'abord la formule fréquente *martiyā tyaišaiy fratamā anušiyā āha(n)tā* "les hommes qui étaient ses principaux partisans" (B. I 58¹; II 77; III 49, 51, 75, 90, 92). En outre: *ma[n]ā ba(n)dakā āha(n)tā* "ils étaient mes serviteurs" (B. I 19); *imaiy martiyā tyaiy adakaiy avadā āha(n)tā* "voici les hommes qui étaient là alors" (B. IV 81); *dārayava(h)uš* (faute pour

¹ Cet exemple est le seul à présenter la formule dans un ordre un peu différent: *tyaišaiy fratamā martiyā anušiyā āha(n)tā*. On dirait que le graveur, ayant oublié *martiyā* en tête, l'a rajouté après *fratamā*. La différence est en tout cas sans portée.

°*vahauš*) *pussā aniyaičiy āha(n)tā* “ Darius avait encore d’autres fils ” (Xerx. Pers. g 29), litt. “ à Darius étaient encore d’autres fils ”.

La confrontation des exemples fait voir qu’il y a une différence et où elle réside.

La forme *āha* sert de prédicat d’existence, spécialement dans la formule de datation, et en général quand la simple notion d’“ être ” est posée. Mais *āha(n)tā* se caractérise par l’expression de l’“ être-à ”, de l’appartenance. Il marque la possession au sens propre (“ Dario filii alii erant ”) ou le fait d’“ être à quelqu’un ” comme partisan (-*šaiy anušiyā āha(n)tā*). De fait *anušiyā* a toujours pour verbe *āha(n)tā*, jamais *āha*, et la forme *āha(n)tā* se lie toujours à un génitif-datif possessif.

Un seul exemple semble y faire exception B. IV 81. Mais le désaccord n’est qu’apparent. Lisons la phrase dans son contexte : *imaiy martiyā tyaiy adakaiy avadā [ā]ha(n)tā yātā adam gaumātam tyam magum avājanam hya brdiya aga[ub]ata adakai[y] imaiy martiyā hamataxša(n)tā anušiyā manā* “ voici les hommes qui étaient là alors, jusqu’au moment où j’ai tué le mage Gaumāta qui se disait Brdiya. Alors ces hommes se sont employés comme mes partisans ”. Le mot important, *anušiyā* “ partisans ” apparaît donc un peu après *āha(n)tā*, et quoi qu’il n’en soit pas ici le prédicat, il régit à distance le choix de la forme moyenne. Le fait d’“ être là ” quand la révolte de Gaumāta menaçait le pouvoir de Darius était une preuve de fidélité, et l’expression signifie en fait “ ils étaient à mes côtés, à ma disposition ” ; *āha(n)tā* est ainsi sur le plan de *hamataxša(n)tā* et remplit la même fonction syntaxique et sémantique que dans les phrases où il se coordonne à un génitif-datif possessif.¹

¹ Ici le moyen se justifie pour *hamataxša(n)tā* comme pour *āha(n)tā*. Mais dans B. I 19 *manā ba(n)dakā āha(n)tā manā bāšim abara(n)tā* “ ils étaient mes serviteurs, ils m’apportaient tribut ”, la forme *abara(n)tā*, dont le sens n’a rien de moyen, a été simplement conformée à *āha(n)tā*. L’expression régulière est *manā bāšim abaran* que nous avons Xerx. *daiva* 17. Il faut restaurer aussi *abaran* à la place de *abaraha* Dar. NRa 19 ; le -h final n’est probablement qu’une faute du lapicide pour -n, les deux lettres ne se distinguant que par un clou latéral.

On a donc voulu différencier en vieux-perse un “être” d’existence et un “être-à” d’appartenance, en affectant à cette dernière fonction une forme moyenne. C’est une innovation hardie que de marquer ainsi l’implication du sujet dans l’appartenance, et, qui prouve en tout cas la vitalité productive de la voix moyenne. Le fait acquiert un grand intérêt pour la linguistique générale. Cette curieuse particularité a-t-elle été limitée à la personne et au temps où nous la constatons ? Il paraît impossible d’en décider. Observons en outre que les conditions de la graphie nous empêcheraient de mesurer l’extension possible de la flexion moyenne dans les désinences primaires : à supposer que **astaiy* et **ha(n)taiy* aient existé, ils ne se distingueraient pas dans l’écriture de *astiy* et *ha(n)tiy*.

prtara

est partout traduit “combattant hostile, ennemi” dans l’unique passage qui fait connaître ce mot (Dar. NRa 46-47) *pārsa martiya dūraiyy hača pārsā prtaram patiyaḡatā* “l’homme perse loin de la Perse a battu l’ennemi” ; — “hat den kämpfenden Feind geschlagen” (Weissbach) ; — “has smitten the foe” (Kent, *Language*, 1939, p. 64). Dans la *Gramm.*², p. 161, § 277, *prtaram* est donné comme acc. d’un nom d’agent **pr(t)-tar-*.

Cette traduction et l’analyse qu’elle suppose doivent certainement être rejetées. 1) Si c’était un nom d’agent, on attendrait un accusatif **prtāram*, comme *framātāram*, *ḡa(n)tāram* ; — 2) si le mot signifiait “combattant”, il faudrait le plier arbitrairement au sens de “combattant ennemi” ; — 3) le vieux-perse, pour “battre (l’ennemi)” dit toujours *aḡa* ; s’il emploie ici *patiyaḡatā*, cette forme moyenne et munie d’un préverbe doit se justifier par un sens différent.

Or les versions élamite et akkadienne donnent ici, non “a battu l’ennemi”, mais “a livré bataille” (akk. *ṣal-tam e-pú-uš* ; élam. *be-ti za-la-in-da*). Tel est sûrement aussi le sens de l’expression perse.

Dans l'Avesta, la forme moyenne de *pati-gan-* est prise absolument au sens de " combattre, se battre " : *yaθā nā taxmō rathāēštā huš.hqm.bərətāt hača šaētāt paiti.γnūta* " comme un vaillant guerrier combattait pour une possession bien acquise " (Yt XIII 67). De même v.p. *patiyaʃatā* " il a combattu " est construit absolument ; *prtaram* qui l'accompagne est un " accusatif de l'objet interne ". Ce *prtara-* probablement neutre, signifie " combat " et se relie à av. *prtana-* " combat " (écrit *pəšana-*) par la même alternance *r/n* qui unit entre eux les adjectifs av. *miθwara-* et *miθwana-*.

Ainsi comprise, la phrase *dūraiy hačā pārsā prtaram patiyaʃatā* " loin de la Perse il a mené son combat " devient symétrique de la précédente : *dūraiy arštiš parāgmatā* " au loin est arrivée la lance (de l'homme perse) ". C'est une répétition voulue, une reprise du rythme dans un développement de structure poétique :

<i>yadipat[i]y maniy[āhaiy</i>	En outre si tu penses :
<i>t]ya čiyakaram [āha] avā</i>	" quels ¹ étaient ces pays
<i>dahyāva</i>	
<i>tyā dārayava(h)uš xšāyaθiya</i>	que possédait le roi Darius ? ",
<i>adāraya</i>	
<i>patikarā dīdiy tyaiy gāθum</i>	regarde les images qui sup-
<i>bara(n)tiy</i>	portent le trône,
<i>a[va]dā xšnāsāhiy</i>	là tu le connaîtras.
<i>adataiy azdā bavā[t]iy</i>	Alors tu apprendras
<i>pār[sa]h[ya] martiyahyā</i>	que de l'homme perse
<i>dūraiy aršt[i]š parāgmatā</i>	au loin la lance est parvenue ;
<i>adataiy azdā bavātiy</i>	alors tu apprendras
<i>pārsa martiya</i>	que l'homme perse
<i>dūraiy [hač]ā pārsā</i>	loin hors de la Perse
<i>prtaram patiyaʃatā</i>	a mené son combat.

ud-pat-

Pour dire qu'un homme ou un pays " s'est rebellé ", Darius emploie tantôt *hamissiya abava*, tantôt *udapatatā*, deux expressions qu'on traduit identiquement. Il y a intérêt à en préciser l'emploi respectif.

¹ Litt. " de quelle nature ". Cf. ci-dessus NR b 51.

La revue complète des exemples enseigne que *udapatatā* se dit exclusivement d'un homme, non d'un pays, et dans l'acte d'usurper le pouvoir en se donnant mensongèrement pour le souverain légitime. Par ce verbe est désignée la conduite des personnages suivants : Gaumāta, faux Brdiya (B. I 36, 38) ; Assina, faux roi d'Elam (I 74) ; Nadintabaira, faux Nabukudračara (I 78) ; Martiya, faux Umani (II 10) ; Fravrti, faux Xšaθrita (II 14) ; Vahyazdāta, faux Brdiya (III 24) ; Araxa, faux Nabukudračara (III 79). Dans un seul cas—Čissantaxma, faux roi de Sagartie—on emploie *hamissiya abava* (II 79–80). Mais l'inverse ne se produit jamais ; nous ne trouvons pas *udapatatā* quand il s'agit d'un pays ou d'une armée, mais seulement *hamissiya abava*, qui désigne proprement l'acte de sécession (avec *hača* "de").

Pour comprendre pleinement le sens général et l'acception restreinte de *udapatatā*, il faut en rapprocher l'emploi de *ud-pat-* dans l'Avesta où il signifie "émerger, surgir d'un bond" *en parlant des êtres daiviques*. Tous les exemples le montrent bien : Yt XIX 57 *āat uspatat framrase zrayanhat hača vouru.kašāt* "alors Frahrasya [personnage maléfique] surgit du lac Varukarta" ; Vd XIII 42–43 *uspatenti* définit la naissance d'animaux bâtards, hybrides de chiens et de loups, à ce titre réputés nuisibles ; au causatif Yt XIX 44 *uspatayeni anrəm mainyūm arəyata hača dužanha* "je vais faire surgir Ahra Manyu de l'enfer hideux".

Ce sens spécifiquement "mauvais" n'apparaît qu'en iranien. En védique le verbe a seulement son sens étymologique : "s'envoler vers le haut" (oiseaux RV. I 124, 12 ; II 43, 3 ; VI 64, 6) ; "surgir d'un bond," comme font le soleil (I 191, 9 *ūd apaptat asaū sūryah*), les chevaux du soleil (I 164, 47), les rayons du jour (I 92, 2) ou les flambeaux de la lumière (VI, 64, 2).

En contraste avec le védique, mais d'accord avec l'avestique, la forme perse signifie donc "émerger d'un bond pour une œuvre néfaste, surgir par fraude" et convient à la conduite d'usurpateurs qui "émergent" en assumant une fausse

personnalité. Ce vocabulaire achéménide, mieux nous le comprenons, plus précis et instructif il apparaît.

Note Additionnelle.—Depuis que ces notes ont été rédigées (à la fin de 1939) je me suis efforcé de tenir compte des travaux parus et j'ai pu en utiliser quelques uns dans les notes. Mais plusieurs articles importants, publiés pendant la guerre en Angleterre et aux Etats-Unis, ne sont parvenus à ma connaissance qu'au milieu de l'année 1945, grâce à l'amabilité des auteurs H. W. Bailey, W. B. Henning, R. G. Kent, que je remercie ici.

H. W. Bailey (*JRAS.*, 1943, p. 2) a su reconnaître v.p. *aruvasta-* dans le mot araméen *'rust* qui, dans une inscription bilingue gréco-araméenne d'Armazi (Géorgie), traduit gr. *νίκη*. Cet emploi pour "victoire" confirme que *aruvasta* a le sens large qui a été défini ci-dessus: "habileté à réussir pratiquement."

R. G. Kent (*Journ. of the Near Eastern Studies*, iv, 1945, pp. 39 sq.) a repris et grandement amélioré, d'après des photographies de l'inscription, sa traduction de NR b. Sur un certain nombre de points, tels que le lecture *aruvaya* et en général l'interprétation des ll. 32-40, son interprétation est maintenant voisine de celle qu'on propose ici. Je ne puis, faute de place, énumérer les endroits où nos avis divergent et que le lecteur verra sans peine en confrontant nos versions (*aruvasta*, *āxšnautiy*, etc.). Il est précieux d'avoir, dans ce même article, une traduction (par G. Cameron) de plusieurs passages de la version akkadienne.

J'avais l'intention de joindre à cette étude une note sur l'expression si controversée de Xerxes *artācā brazmaniya* que j'interprétais "(rendre culte à Ahuramazdā) avec les baguettes rituelles" (en expliquant *artācā* par **artāk-* < **artahak-* = av. *aśanhak-*). J'ai supprimé cette note en constatant que H. W. Bailey, *Zoroastrian Problems*, 1943, p. 87 n., avait exprimé une idée semblable, et surtout en prenant connaissance de l'important article de W. B. Henning (*Trans. Phil. Soc.* 1944, pp. 108 sq.) qui remet en question le rapport entre *brazman* (= skr. *brahman*) et av. *barəsmān*

en vue de comparer v.p. *brazman* à phl.T. *brahm* “rite, cérémonie”.

II

NOMS PROPRES PERSES EN TRANSCRIPTION GRECQUE

1. Hérodote nous fait connaître le nom des deux filles de Cyrus, que Darius épousa l'une et l'autre : *Ἀτοσσα* et *Ἀρτυστώνη* (IV 78 *Κύρου . . . δύο θυγατέρας Ἀτοσσαν τε καὶ Ἀρτυστώνην*). Le premier de ces noms, *Ἀτοσσα*, célèbre par les *Perses* d'Eschyle, est depuis longtemps interprété : av. *hutaosā* “καλλίπυγος”.

Le nom de la seconde fille, qui n'a pas encore d'explication, me paraît être aussi une qualification physique. Je ramène *Ἀρτυστώνη* à un composé féminin **rdva-fštānī* “aux seins dressés”, parallèle perse aux composés de même sens av. *ərədva-fšnī* (épithète des jeunes filles) et véd. *ūrdhva-stanī*. La transcription grecque a dû simplifier les difficultés de la forme originale. Elle y reste néanmoins fidèle, moyennant quelques adaptations. On serait tenté de chercher derrière *Ἀρτυ* — un ancien **ardu-* comme dans v.p. *Ardu-manīš* ; mais *ardu-* “droit” (av. *ərəzu-*) conviendrait mal au sens, et il est vraisemblable a priori que le composé perse a été constitué, en tant qu'épithète traditionnelle, des mêmes éléments qu'en avestique et en védique. La forme du second terme, *-στώνη*, interprétée par *-fštānī*, montre que *fštāna-* “sein” qui, en composition, se réduit à *-fšna-* en avestique, gardait en perse sa forme pleine, de sorte **rdva-fštānī* est en quelque manière intermédiaire entre av. *ərədva-fšnī* et véd. *ūrdhva-stanī*.

2. En face de véd. *ṛjīpya-*, av. *ərəzīfya-* “aigle”, nous savons que la forme perse doit se reconstruire en **ardufya-* d'après mp.T. *āluf* (BSOS. IX 79), pers. *ālūh* “aigle”. Il est aisé de reconnaître cet **ardufya-* dans les noms propres *Ἀρτύφιος*, *Ἀρτύβιος* (Herod., Ctes.).

3. Nous connaissons par Ctesias, *Pers.* 11 le nom *Τιβέθις* (d'après le gén. *Τιβέθεως*) que portait l'eunuque gardien de Cambyse. S'il n'est pas trop hardi de prendre ce nom comme une désignation de fonction, on comparerait volontiers

Τιβέθις à aram. Eleph. תִּפְתִּי, bibl. תַּפְתִּי qui désigne un chef de police. Le *-pati* du second élément est encore reconnaissable sous la déformation grecque (cf. les nombreux noms en *-βατης, -βεδης, etc.*). Quant au premier terme du composé, la transcription grecque nous apporte au moins confirmation de la vocalisation araméenne, à défaut d'une explication sur laquelle les avis diffèrent grandement (cf. *JA.* 1934, II, p. 185 ; *contra* : Henning, *Beichtbuch*, p. 90 n.).

4. On sait que les Grecs ont transcrit par *Ἄντο-* les noms perses en *vāta-*, dont les titulaires étaient placés sous l'invocation du dieu du Vent. L'équivalence est prouvée par *Ἄντοφραδάτης*, transcrit en lycien *wataprddatehe* (Kalinka, *Tituli Asiae Minoris*, n° 61), perse **vāta-fradāta-*.

De là se tirera sans peine l'explication du nom *Ἄντοβοισάκης* (Xen. *Hell.* II, 1, 8) : il représente **Vāta-vaisaka-* "serviteur de Vāta" ; cf. av. *vaēsa-* "serviteur (familier)" et le nom **Vaisaka-* attesté par av. *vaēsakay-* et par phl. *Vēsak*, pers. *Vēse* (Fird.). Ce **Vāta-vaisaka-* est un nom comparable à **Miθra-bandaka-* "serviteur de Miθra", arm. *Mehrevandak*. Il fournit un nouveau témoignage onomastique du culte important de Vāta.

III

EMPRUNTS IRANIENS EN ARMENIEN

1. *ah* "peur, φόβος" avec ses dérivés *ahagin, ahawor* "effrayant, terrible", *ahem* "j'effraye", etc., n'est pas encore reconnu comme emprunt et manque chez Hübschmann. On peut ramener *ah* (thème en *-i-*) à av. *āθi-*. Ce mot *āθi-* est traduit chez Bartholomae "Verderben, Unheil, Leid" probablement parce que av. *āθa* F. 7 se trouve rendu par phl. *dart*. Mais d'autres faits sont plus concluants. La liaison *āiθīm θwyqmčā* Yt X 37 associe *āθi-* à la notion de "crainte", de sorte que la phrase *avi diš aēm xšayamnō āiθīm baraiti θwyqmčā* se traduira "Miθra apporte à l'armée ennemie frayeur et crainte", plutôt que "Verderben und Angst". La formule gâthique *yehyā mā āiθiš dvaēθā* (Y. XXXII, 16 ; XLVIII, 9) signifiera aussi bien "dont le danger me menace". Du reste

la version pehlevie de l'Avesta confirme cette interprétation pour l'adjectif *āiθivant* qui est rendu par *sahmakōn* "effrayant": Aog. 28 (cf. H. II, 17) *vairīm yim xrvantəm āiθivantəm* = phl. *var i vixrūn i sahmakōn*. On pourra entendre de même g. *āθri-* comme "frayeur" ou "danger" (Y. XLVI, 8; "Verderben, Unheil, Leid" Bartholomae; "Nachteil" Lommel *GGN.* 1934, p. 106). Les autres formes avestiques *apāθa* (Yt XIX, 48), **āθadča* (Yt XIX, 12) sont trop douteuses pour rien apporter d'utile. Il semble bien au total que les emplois de *āθi-*, *āθivant-* autorisent une traduction "effroi; effrayant" et permettent de trouver ici l'origine de arm. *ah*.

2. Parmi les composés arméniens de *xoyr* (v.p. *-xauda-*) que cite Hübschmann (p. 160, n° 280), il en est un qui mérite l'attention: *artaxurak* "tiare; couronne (du martyr)" et aussi "couverture de la tente (en tant que sommet pointu)". Ce **rta-xauda-* pourrait être le nom original de la "tiare droite" (*ὀρθή τιάρα*) que portaient seuls les rois de Perse (Xen. *Anab.* II, 5, 23; *Cyr.* VIII, 3, 13).

3. *ašakert* "élève" et *vardapet* "maître" doivent être de nouveau examinés et ensemble. Dans la *Rev. Et. Arm.* IX, 1929, p. 10, j'ai expliqué *vardapet* "διδάσκαλος" dont l'origine iranienne est manifeste, par un composé mp. **vard-pat* < **varda-pati* "maître de pratique", titre religieux où *vard-* représente la forme perse de *varz-* "pratiquer". Cette hypothèse est maintenant confirmée par l'inscription dite de la Ka'aba de Zoroastre, découverte à Naqš-i-Rustam et qui doit être attribuée à Šāpūr I. On y trouve (l. 32) entre autres titres de dignitaires de l'Eglise mazdéenne, celui de *vardbad* "maître des pratiques, des observances". L'origine de *vardapet* est désormais acquise.

C'est également comme ancien terme religieux que nous expliquerons le nom de l'"élève", *ašakert* "μαθητής". Ici le problème se pose en termes différents. Il ne s'agit pas d'en identifier les formes iraniennes, qui sont bien connues (phl.T. *hašāgird*, pers. *sāgird* "élève"), mais d'élucider le sens de *hašā-* dans ce composé **hašā-kṛta-*. Bartholomae *Z.air.Wb.* p. 38 l'a rattaché à av. *haxay- haši-* "compagnon". Mais il

est peu vraisemblable que *haxay-* avec sa flexion complexe ait survécu en moyen-iranien. Comme pour *vardapet*, nous chercherons plutôt à *ašakert* une origine perse. On partira de **hašā-krta-* < **hašiyā-krta-* (cf. *šāta-* < *šiyāta-*) dont le premier élément sera *hašiya-* "vrai". L'expression serait symétrique du composé av. *haiθyā.varəz-* litt. "qui rend vrai, authentique" g. *haiθyā.varəzya-*, et ce **hašā-krta-* signifierait proprement "qui est rendu authentique, accompli", en parlant du disciple qui a fait ses preuves. [Cf. Schaefer, *OLZ.* 1940, 379.]

En effet av. *haiθyā.varəz-* est déjà orienté vers ce sens et s'emploie avec une valeur technique que Bartholomae n'a pas discernée en traduisant "(wahrmachend, sva.) das Geforderte leistend, die Pflicht erfüllend". Le mot se trouve G. III, 7, au terme d'une énumération qui comprend dans cet ordre : *zatar-*, *havanan*, *ātərvaxš*, *āsnātar-*, *raēθwiškara-*, *sraošā.varəz-* et *haiθyā.varəz-*, toute une hiérarchie de prêtres dont *haiθyā.varəz-* fait clairement partie. Un autre passage G. III 3 est aussi explicite : *haiθyā.varəzəm ašavanəm ašahe ratūm yazamaide aparəməca tkaēšəm yazamaide* "nous rendons culte au *haiθyā.varəz-* et au second maître" (et non "den zweiten Teil der Glaubenslehre", comme traduit bizarrement Bartholomae 813). L'enchaînement même des deux expressions indique leur similitude et que le *haiθyā.varəz-* est un "maître de doctrine" (*tkaēša-*) et un *ratu*.

On voit ainsi se confirmer l'idée que, dans l'Iran sassanide, la qualification de **hašā-krta-* qui survit dans arm. *ašakert* se relie aux mêmes conceptions religieuses d'où est issu le nom du "maître", **varda-pati-* arm. *vardapet*.

4. *burwar* "encensoir, *θυμιατήριον*", est manifestement iranien. On serait tenté de l'expliquer par **bardi-bara-* "porte-parfum". Mais Hübschmann, n° 116, p. 122, objecte avec raison le *-r* et pense que le second élément est tiré du verbe arménien *varel* "brûler". La difficulté disparaîtra si nous pouvons identifier en iranien même le prototype. Nous ne l'avons pas encore en parthe ni en m.perse, mais nous le connaissons en sogdien : c'est *βωδβρν* "porte-parfum"

(VJ. 14), composé avec *-bar(a)na-* dont le groupe *-rn-* a donné arm. *ṛ* comme dans *p'ar-k'* (*farnah-*) ou *zair* < *zar(a)niya-*. Ce **baudi-barana-* est comparable à av. *zaoθrō.barana-* "réceptacle à libations". Le rapport de *-barana-* à **barna-* est celui de av. *zaranya* (skr. *hiraṇya*) à **zarniya(ka)*, arm. *zarik*.

5. *erašx* (thème en *-i*) "caution, garantie" doit être pris à l'iranien comme tant d'autres termes juridiques. Bien que la forme iranienne fasse encore défaut, nous pouvons faire remonter *erašx* à **raxši-* qui s'apparentera à skr. *rakṣa-* "protection, garantie".

6. *bav* "satiété" attestait déjà indirectement en moyen-iranien le mot qui reparait dans sogd. *β'w* "satiété" (sens rectifié par Henning, *Beichtbuch*, 546).

7. *bargavač* "prospère, glorieux" (*bargavačank'* "état florissant, prospérité") se révèle emprunté, si l'on compare sogd. *βry'wčyk* "prospérité": *w'r 't βry'wčyk βyrt* "il obtient réussite et prospérité", TSP. 8, 93 (corriger trad. et note ad loc.).

8. *džndak* "dur, méchant, désagréable" doit être comparé à pers. *džand* qui a le même sens. Mais la forme arménienne suppose **dižind*.

9. Dans *hanganak* "contribution, cotisation" et aussi "symbole" (probablement par imitation de *συμβάλλειν*), on retrouve un **han-gānak* de **ham-kan-* "jeter ensemble", nouvel exemple de cette racine *kan-* "jeter" connue par v.p. *avākanam*, pers. *afgandan*, etc.

10. *hambav* "bruit, nouvelle, réputation" (d'où *hambavel* "ébruiter, divulguer") est si clairement iranien d'apparence que seul le sens paraît faire obstacle à une interprétation par *ham-bav-*. La difficulté serait insurmontable si l'on devait s'en tenir à une traduction étymologique de *ham-bav-* par "naître ensemble". Mais déjà av. *ham-bav-* s'emploie dans une acception qui peut aider à comprendre le sens de l'emprunt arménien. Pour plusieurs exemples, qu'il faut augmenter, Bartholomae a posé le sens de "entstehen", notamment dans plusieurs passages du *Vidēvdāt* où le verbe s'applique

à des animaux ou à des maladies qui “ naissent et se développent ” dans certains endroits (Vd. VII, 57 ; XIII, 51 ; XVII, 3 ; XIX, 34). Quand il s’agit notamment de démons, de maladies ou de créatures malignes (p.ex. *xrafstra*), on ne fausserait pas le sens en traduisant *ham-bav-* par “ se diffuser ”. Il devient possible alors de voir dans arm. *hambav* “ bruit, nouvelle ” une acception métaphorique de ce sens et de le ramener à l’idée de ce qui se répand, se diffuse, en partant peut-être de locutions prégnantes.

11. *dēp-k’* “ évènement, rencontre ”, *dēp* “ convenable, opportun ”, *dipān* “ opportun, favorable ”, *dipim* “ se rencontrer, avoir lieu ”, *handipim* “ coïncider ” s’expliquent par un radical **daip-* **dip-* que nous trouvons dans phl.T. *dyb* “ bonheur, chance ” (A.H. II, III), *dybg* “ destin, sort ”. Déjà Andreas (HR. II, p. 111 ; cf. Salemann, *Man. Stud.*, s.v.) a indiqué brièvement ce rapprochement, que je reprends explicitement pour qu’il serve, s’il y a lieu, à fixer d’autres formes.¹

12. *das* “ rang, ordre ”, *dasel* “ ordonner, arranger ” pourrait fournir la forme propre à expliquer mp.T. *hnds-* s’il signifie “ régler, répartir ”, comme on le traduisait (cf. Henning, *Mp. Verbum*, p. 173). Mais selon BSOS. IX, p. 83, le sens serait “ laisser, abandonner ”, comme parthe *’nd’s-*. On en jugera mieux quand les textes auront été produits. Quoi qu’il en soit, *das* doit provenir de l’iranien et peut rendre compte de pers. *handasī* “ mathématiques, géométrie ”, et aussi d’oss. *dasun* “ réunir, entasser ” qui était isolé (Miller, p. 59).

13. *gah* “ déclivité, précipice ” *gahavež* “ précipité ”, *gahavižel* “ précipiter ” avait embarrassé Hübschmann (p. 125, n° 126) à cause d’une traduction inexacte du mot iranien susceptible d’en être l’origine. Aujourd’hui on ne doute pas que av. *vī-gāθ-* désigne les précipices des montagnes. Mais

¹ Différent est phl. *dibahr* “ colère ” qui à son tour rappelle curieusement arm. *dipah*. Mais les sens diffèrent : arm. *dipah* signifie “ arrêts, maison d’arrêts ” et suppose **dēp-*.

Bartholomae s.v. a oublié de mentionner le mot arménien. Un rappel n'est pas inutile.

14. *hnazand* "obéissant, soumis" (*hnazandel* "soumettre, rendre obéissant") révèle un **hu-nazand* qui contient l'adjectif connu sous sa forme parthe par perse *nažand*, *nižand* "humble, soumis" (et aussi "abattu, triste") et en moyen-iranien, par sogd. *nznt*. Ce dernier s'emploie dans l'expression *trn nznt (nyznt)* hendiad. "doux (et) humble".¹

15. *hrapoyr-k'* "attire, entraînement, séduction, sollicitation", *hrapurel* "entraîner, séduire" peut être reconnu comme iranien, bien que la forme correspondante nous manque encore. Nous expliquerons *hrapoyr-k'* par **fra-pauda-*, d'une racine iranienne **pud-* attestée par parthe *pōd-* "marcher, courir" (citée BSOS. IX, p. 87, d'après des textes inédits, cf. Ghilain, *Langue parthe*, p. 65), pers. *pōyīdan* "se mouvoir, courir". Le sens de **fra-pud-* sera probablement "courir en avant (pour entraîner)" et de là "attirer". Aucune autre forme, à notre connaissance, n'aide à en mieux définir le sens.

16. *katak* "plaisanterie", *katakel* "plaisanter, badiner" nous livre en m.ir. occidental le mot **kātak* qui était attesté seulement par sogd. *k't'k* "jeu (avec les enfants), plaisanterie", *k't-sy'rδ*, man. *q't-sxnd* "action de ridiculiser" (cf. Henning, *Beichtbuch*, 716).

17. *kōys* "côté, région" est emprunté au mot connu par parthe *kws*, phl. *pātkōs*, mp. *p'dgws*, *p'ygwš* "région, pays, province" (arm. *patgosapan*), sogd. *kws* "côté (d'un objet), angle", *ētβ'r-kws'y* "à quatre côtés, quadrangulaire". Ce **kōs* va avec phl. *kust*, *kustak* "côté (extérieur), région", arm. *k'ust* "région", s. chr. *qws't* "partie (d'un groupe)" (ST. I). Mais le sens exige qu'on en sépare un ensemble très voisin à tous égards, avec lequel on a coutume de le confondre (ainsi Nyberg, *Hilfsb.* II, p. 102). Nous avons en sogdien chrétien *qws'y* "côté" mais "côté du corps, flanc" (= *πλευρά*, ST. I, 78, 3), métaphoriquement aussi "flancs" d'un navire : *čn n'wy xw'r'nt qws[y ? ?] = εἰς τὰ δεξιά*

¹ Corriger ainsi les indications données sur ce mot dans le commentaire et le glossaire de mes *Textes sogdiens* (1940).

μέρη τοῦ πλοίου” (ST. I, 79, 4). Il apparaît également (non reconnu par l'éditeur) dans les Actes de St. Georges *ἐν ἑωσῆ* “ (elle déposa l'enfant) en l'éloignant de son sein, de son côté ” (l. 228). Ce mot se range avec phl. *kušt* “flanc, ceinture”, arm. *kušt*, *kštapanak*, etc. Quelles que soient les possibilités d'un rapprochement étymologique et partiellement les variations dialectales (phl. *kušt* et *kust*), il est préférable d'admettre en moyen-iranien deux mots distincts dénotant l'un (sogd. *kws*) une localisation spatiale, “côté, région, pays,” l'autre (sogd. *qws*) une partie du corps, “flanc.” Dès lors phl. *hangōšitak* “parallèle, symétrique, semblable”, pers. mazd. *hamkōš* “synonyme”, signifiera “qui a le même flanc, qui est placé côté à côté”. [Cf. B. Geiger, *WZKM.* 44 (1937), p. 61 sq.]

18. *sug* “tristesse, deuil” dont Hübschmann voulait, pour des raisons phonétiques, faire un mot hérité (p. 491), a toutes chances d'être emprunté aussi. Il faudra poser, non **sōk*, mais *sūg*, vocalisation que permet la forme attestée à Turfan (*swg*). La concordance de arm. *sgavor* “triste, affligé” et de parthe *swgb'ryq* (A.-H. III), pers. *sūgvār* ne peut être fortuite.¹

19. Si *t'agavor* “roi” est d'une interprétation évidente (**tāga-bara-* “porte-couronne”), il n'en va pas de même du mot qui lui sert de féminin *t'aguhi* “reine”, où la finale peu claire *-uhi* reste sans explication. Cependant ce doit être aussi un composé iranien. Nous le restituerons en **tāga-brθryā*, devenu **-wrhri* > **wrhi* d'où *-urhi*, *-uhi*; le *-w-* s'est vocalisé en *-u-* devant *-r-* comme dans *patuhas* “punition” < **paturhas* < **patwrhas* < *pātfrās*. Ainsi fixée dans un mot important et caractéristique, la finale *-uhi* a pris la fonction d'une marque du féminin des personnes, dans les noms de métier ou les adjectifs d'origine. En arménien moderne on a formé *hayuhi* “Arménienne”, *p'arizuhi* “Parisienne”, *usuṣ'uhi* “maîtresse”, etc. (cf. Abeghian, *Neuarm. Gramm.*, p. 44).

20. *vēp* “histoire” (*vipel* “raconter”) peut s'expliquer

¹ Sur le timbre *ō/ū* du mot persan, les rimes ne fournissent que des données contradictoires (cf. Horn, *KZ.* XXXV, p. 190, et *Np. Schriftspr.*, p. 62).

comme un emprunt remontant à ir. **vaiṣ-*, *viṣ-* attesté par av. *viṣra-*, véd. *viṣra-*. On traduit av. *viṣra-* par “habile, expert” dans l’unique emploi qui en est connu: *paurovō yō viṣrō navāzō* “Parva, l’habile nocher” (Yt V 61). A vrai dire, c’est là une interprétation au jugé, déduite d’un seul exemple et peu concluant, car la figure et le rôle de ce Parva sont inconnus autrement. Mais nous sommes mieux renseignés sur véd. *viṣra-* et il est frappant que l’épithète qualifie ordinairement des récitants inspirés, prêtres, chantres, poètes (cf. *viṣ-* “chant”). Les formes védiques de *viṣ-* semblent indiquer d’abord une activité spirituelle qui se manifeste en inspiration poétique et en hymnes religieux. On peut donc supposer que ir. **vaiṣa-* a signifié “chant inspiré” d’où serait résulté un sens de “énonciation imaginative, fable” et finalement “narration, histoire”. Il faudrait d’autres formes et des témoignages intermédiaires qui nous manquent pour retracer avec plus de sûreté cette évolution.

21. *vižel* “couler, fluier, se répandre”, *vižan-k’* “flux, écoulement” apportent une donnée notable à un problème qui a été plusieurs fois agité. Le radical **vēž* de *vižem* suppose **vaiḡ-* “couler à flots”. Nous avons donc ici une nouvelle forme de **vaiḡ-* qui est lié au problème de l’*Ērān-vēž*, av. *airyanəm vaējah-* (v. BSOS. VI, pp. 265 sqq.). Les formes arméniennes attestent le même sens de “couler, se répandre” qui est propre à av. *vōiḡnā* (= *vaiḡ-nā-*) “inondation” et qui se montre aussi dans la liaison de *vaējah-* avec des noms de fleuves (*airyanəm vaējō vanhuyā dāityayā*). Skr. *vega-* entre autres sens, a celui de “flot, torrent”.

22. *vhuk* “devin, sorcier” (*vhk-a-harçu* “id.”, *vhkut’iwn* “divination, sorcellerie”) doit d’abord être fixé dans son exacte signification. Selon des renseignements que MM. Dumézil et Berberian m’ont aimablement fournis, *vhuk* sert en général dans la traduction arménienne de la Bible à rendre *ἐγγαστρίμυθος* “ventriloque” ou, dans deux passages des Rois, *θελητής* “sorcier qui évoque les morts, nécromant” (IV Reg. XXI, 6 *ἐλλήν* (?) var. *θελητήν*; XXIII, 24 *θελητάς*). Le Dictionnaire de Venise cite en

outre plusieurs exemples où *vhuk* est joint à *kaxard*, *gēt*, *nšanadēt*, et y ajoute deux définitions ; l'une est tirée du commentaire de Chrysostome à Isaïe : " Qu'est-ce que *vhuk* ? Un certain mauvais démon, qui parle (hors) du ventre des femmes et s'efforce par des choses nouvelles de rendre croyable la folie." La seconde provient d'un répertoire de mots du XIV^e siècle : "*vhuk* : celui qui consulte par les os d'un mort, ou démon devin." De ces données on peut conclure que le *vhuk* était un sorcier ventriloque, qui simulait pour des fins magiques la voix d'un absent ou d'un mort. Ce mot *vhuk* me paraît être un emprunt iranien qui se ramène à **vīhūk* < **viθuka*-. Aussitôt apparaît un rapprochement avec la racine avestique *vaēθ-* et les mots *vīθuš-*, *vīθuša-*, *vīθiš-*, rapprochement d'où résulte une meilleure compréhension des faits avestiques. Quoique ces mots apparaissent dans des passages peu nombreux et pour la plupart corrompus, ils se rattachent à une même et constante représentation. Bartholomae traduit *vaēθ-* "gerichtlich feststellen ; die Schuld einer Tat gerichtlich feststellen, (Jemanden) einer Tat überführen". En gros, c'est bien la définition ; il s'agit de convaincre le coupable de sa faute. Mais par quel moyen ? Le verbe *vaēθ-* et les mots qui en dépendent sont toujours employés en relation avec des pratiques d'*ordalie*. Un passage significatif le montre : Vd IV, 54-55 *aētahe šyaoθnahe vaēθanti* "ils convainquent (le coupable) de cette action" ; le prévenu doit boire l'eau de l'*ordalie*, *āpəm saokəntavaitīm zaranyavaitīm vīθušavaitīm*, car cette eau possède apparemment le pouvoir de révéler magiquement la faute cachée. C'est ce procédé de divination dans les pratiques judiciaires que *vaēθ-* exprime. Dans un autre endroit, *vīθušavant-* énonce l'efficacité des offrandes : Vr. VI, I *sastiča vantāča rafnanhāča vīθušaēibyasča zaθrabyō aršuxdaēibyasča vāγzibyō aməšō spəntā vanhūs srīrāiš nāman āzbaya* "avec éloge et louange et dévouement et des libations *vīθušavant* et des formules correctement prononcées, j'invoque les bonnes A.S. par leurs beaux noms". Dans ce contexte, *vīθušaēibyō zaθrabyō* doit provenir de quelque autre passage

où certaines libations avaient un pouvoir révélateur. On parvient ainsi à mieux comprendre le sens de *vīθiš-* Yt X 80 *miθrəm yahmi sōire miθrō.drujō aipi vīθiši řata paurva mařyākānhō* “ Miθra par (?) le *vīθiš* duquel gisent en masse, abattus, les parjures ”. Ce n’est pas “ Gericht ”, comme traduit Bartholomae. Miθra emploie un *vīθiš* pour découvrir ceux qui manquent à leur parole ; c’est un procédé divinatoire. Comme tel, il pouvait servir aussi à des fins mauvaises. C’est du moins ce qu’on pourrait conclure du mot *vīθuša-* qui désigne (Vd I, 5) un des fléaux que Ahra Manyu a déchaînés sur le territoire de Mouru (Marv) ; probablement quelque genre de sorcellerie, car dans la même énumération de pays, on retrouve la sorcellerie parmi les plaies dont le Mauvais Esprit a affligé d’autres provinces (ibid. 9, 13–14).

Il ressort de cette analyse que *vaēθ-* avec ses formes nominales aux finales partiellement incertaines (*vīθiš*, *vīθuša-*, *vīθuša*, *vīθuřavant-*) désignait un procédé de détection usité dans l’ordalie et devait plus généralement comprendre certaines pratiques de magie. L’agent de ces opérations devait porter un nom tel que **viθu(ka)-* — formation parallèle à *yātu(ka)* — qui survit dans arm. *vhuk* “ devin, sorcier ”.

23. *jerbakal* “ prisonnier ” mérite à un autre point de vue d’être étudié dans la même série. C’est un composé purement arménien, formé de *jerb-a-kal*, litt. “ pris par la main ”, avec *jerb* ancien instrumental de *jern* “ main ”. Or cette dénomination du “ prisonnier ” en tant que “ pris par la main ” est exactement superposable à celle qui est employée en moyen-perse *dastgraβ* “ prisonnier ” (= “ pris par la main ”) ; mot attesté dans le Frahang i Pahlavik (XVII, 1) et aussi dans l’inscription de Šāpūr I (Henning, BSOS. IX, p. 834) ; sous la forme *dastgīr* Kārnām. (Herzfeld, *Altpers. Inschr.* p. 136), pers. *dastgīr* “ prisonnier ” (BQ.) ; *dastgīrī* “ captivité ” en face de phl. *dastgraβīh* (ŠGV.). Il apparaît donc que arm. *jerbakal* est un calque de mp. *dastgraβ* et entre dans la catégorie de ces emprunts sémantiques (Hübschmann et Meillet en ont signalé plusieurs) qui, autant que les emprunts formels, attestent l’action d’une culture étrangère.

On en découvrirait d'autres parmi les composés arméniens : ainsi *barekam* "ami", litt. "qui veut du bien" (**bari-a-kam*) n'est-il pas calqué, à l'aide d'un demi-emprunt, sur parthe *širgāmāy* "ami (< *šir-kām-ak* "qui veut du bien", imité lui-même de sogd. *šyr-γwz-'k* "id.") ?

SOME DRAVIDIAN WORDS IN SANSKRIT

By T. BURROW

1

SKT. *atta-* m. according to B.R. has the meaning of a tower or strong point on a wall serving for defence. In the same sense we also have *attaka-*, *attāla-*, *attālaka-*. From this the meaning 'watch-tower' also develops.

Compare Te. *attādi* a fortified place in front of a building, and, in a more general sense, Ka. *aḍḍal* obstacle, hindrance. These words are members of a numerous Dravidian series beginning *at-*, *att-*, *ad-*, *add-* and meaning generally 'obstacle, obstruction; athwart, across; to obstruct, close':—

Ta. *atai* to be obstructed; to obstruct, block, close, fasten, *ataippu* shutting, stopping, obstruction, *ataiccu* to shut, close, Ma. *atayuka* to be shut, shut up, enclosed, Ka. *aḍa* the state of being across, transverse or in the way, obstructing, obstruction, impediment, *aḍavu* an impediment, anything to obstruct, e.g. a stone placed, *aḍe* to shut, lock, obstruct, stop the passage; to be enclosed, barred, shut up, *aḍḍa* the state of being across, etc., *aḍḍayisu* to move obliquely or obstructingly, *aḍḍi* an obstacle, opposition, delay, Tu. *ataka*, *atakāvu* obstacle, hindrance, *aḍaka* id., *aḍepuni* to shut, close, *aḍēke* obstacle, hindrance, *aḍḍa* obstacle, hindrance; across, athwart, *aḍḍana* a shield, *aḍḍali* a pole placed across, *aḍḍi* obstacle, stoppage, *ātanka* hindrance, obstacle (= Ka. *ātanka*, Te. *ātankamu* id.), Kui *aḍa* a screen, an intervening object, *aḍa giva* to screen, intervene, intercept, Brah. *aṛ* obstruction, entanglement, *aṛī* obstacle, obstruction.

The alternation *tt/dd* points to the fact that the double consonant in Dravidian is the result of an assimilation of an original consonant group; the forms with single *-t-*, *-d-* are in accordance with the usual Dravidian practice of shortening double consonants under certain conditions.

Other words derived from this source are Skt. *aḍḍana-* (Lex.) shield (Kitt.: no. 249 and IA. i, p. 236), and Pkt. *adda-* crosswise, athwart. The latter word is well represented in modern Indo-Aryan: Hi. *ārā*, Be. *ār* across, etc. (see *Nep. Dict.* s.v. *aṛbhāṅge*).

2

Skt. *adhara-* lower, in combination with *oṣṭha-* lip, may form a compound *adharoṣṭha* or *adharauṣṭha*¹ lower lip, as opposed to *uttaroṣṭha-* or *uttarauṣṭha* upper lip. Further *adhara-* m. is by itself used in the meaning 'lower lip' and in accordance with this sense the compound *adharoṣṭha-* is sometimes used in the sense of 'upper and lower lip'. Finally *adhara-* comes to be used in the classical poetry in the sense of 'lip' in general as well as 'under-lip' specifically. This development of meaning is not known in the earlier language, and there is no trace of any similar development in the case of *uttara-* applied to the upper lip. The influence of some Dravidian words is to be taken into account here: Ta. *utaṭu* lip, Ka. *odaḍu*, *odaru* id. Of these, Ka. *odaru* lip, is very similar to the Skt. word, especially when it is borne in mind that Drav. short *o* is a sound that does not exist in Skt. and is normally replaced in loanwords by short *a*. This being the case the influence of the Dravidian word may be held responsible for the peculiar development of meaning in classical Sanskrit by which *adhara-* comes to be used in the sense of 'lip'.

3

Kittel (IA. i (1872) p. 236; not repeated in his Kanarese Dict.) compares Skt. *alasa-* lazy, tired, faint (ŚBr., etc.) with Ka. *alasu* to be weary, considering the Skt. word to be derived from Dravidian. A survey of the Dravidian words related to Ka. *alasu* makes it quite clear that he is right. The following words belong to this numerous group:—

Ta. *alacu* to be exhausted, to become weary, *alacal* laziness, languor, *alu* to be weary, fatigued, tired, by overwork or care,

¹ Cf. Pāṇini, vi, 1, 94, *Vārtt.* 5.

aluppu weariness, exhaustion, *alaicu* to be lazy, *alaical* laziness, *alaiyal* languishing, drooping, swooning, Ma. *alayuka* to be wearied, *alasal* fatigue, *aluppu* weariness, Ka. *ala* fatigue, weariness, *alapu*, *alavu* id., *alasu* to become weary, to be relaxed, tired; (*sb.*) weariness, idleness, *alasaṭe*, *alasiḱe* fatigue, lassitude, Tu. *alasy* old, worn out, *alasaḷy*, *alasiḱe* fatigue, weariness, *alepuni* to be fatigued, *aleyuni* to be weary, Te. *alayu* to be tired, fatigued, weary, *alayika* fatigue, *alāta*, *alakva* id., Kui *alāri* fatigue, *laha* languor, laziness, indolence; (*adj.*) lazy.

This word-family is native to Dravidian and widespread in it. Since it can hardly be doubted that the Sanskrit and Dravidian words belong together, and since on the other side the Sanskrit word has no Indo-European etymology, it is clear that the Skt. word is derived from Dravidian.

Correspondences in Uralian may be suggested for these words, bearing in mind that in South Dravidian initial *l* is not tolerated and a prothetic vowel develops before it (*BSOAS*. xi (1944), p. 350):—Fi. *lahju* lazy, *laiska* träge, faul, müssig, Est. *laisk*, g. *laiza* faul, träge, LpN. *laikke* piger, ignavus; cf. SamJu. (Ca.) *laek* faul. Wilhelm Thomsen (*BFB* 193) derived Fi. *laiska*, Est. *laisk* from Lett. *laisks*, but the borrowing could be the other way round.

Ta. *alacu* besides meaning 'to be exhausted, weary', means also 'to shake, be agitated'. It seems that there are two families of words of somewhat similar appearance, one meaning 'to be tired', and the other meaning 'to shake'. The words meaning 'to shake' are as follows:—

Ta. *alaṅku* to move, shake, swing, be agitated, *alaṅkal* wreath for the hair, waving ear of corn, *alakku* to cause to move, shake, *alacu* to shake, be agitated, *alantalai* disturbance, confusion, *alamaru* to shake, tremble, be confused, agitated, to whirl, *alavalai* confusion of mind, agitation, *alukku* to shake slightly (*tr.*), *aluṅku* to shake slightly (*intr.*), *alai* to wave, shake, play in the wind; (*tr.*) to agitate; (*sb.*) wave, billow, Ma. *ala* wave, *alaṅṅuka* to be shaken, *alayuka* to fluctuate, be tossed, *alekkuka* to beat against, as waves on

the shore, *alu* to shake, Ka. *alaku* to move about, shake, tremble, *alacu* to shake, *alasu* to shake or agitate in water, *alugu* to be agitated or unsteady, to move about, shake, *ale* to move about, shake, dangle; to roam about, wander; (*sb.*) a wave, billow, Tu. *alaṅkuni*, *alaṅguni* to shake, agitate, wave, move, *alacuni*, *alasuni* to move, shake, agitate, *alejuni*, *alejuni* to be agitated, disturbed, *aleyuni* *alevuni* to wander, roam, *aluguni* to move, shake, Te. *alāgu* to be displeased, upset, *alācu* to tease, harass, *alāduru* grief, sorrow, *alamaru* to grieve, sorrow, *ala* wave.

From considerations of meaning these two groups should be kept apart, and where two individual forms coincide they should be treated as homophones and separated accordingly.¹

The second group also seems to have parallels in Finno-ugrian. Compare Fi. *laikka* leicht oder geschwind sich bewegen, *laikkua* schwanken, *laine* wave, Zyr. *laikal* schwanken, etc. (O. Donner, *Vergl. Wört* no. 1072).

Skt. *lahari* wave, billow, is probably derived from this source, although no exactly corresponding form is to be found in the available Dravidian evidence. Another Skt. word for 'wave', *kallōla* is to be explained as follows. Besides the words quoted above, we also find some with *-ll-* in place of *-l-* which has presumably been introduced for the purpose of greater expressiveness: Ta. *allal* affliction, Ma. *alla* tumult, disturbance, Ka. *allari* the state of being troubled, disturbed, Te. *allari* tumult, confusion; quarrel, riot, *allalāḍu*, *allallāḍu* to move, shake, tremble, *allāḍu* to shake, move, wave, toss about; Ka. *allakallōla*, *allōlakallōla* great agitation, as of water, confusion of the mind, tumult, disorder, disturbance, Te. *allakallōlamu* confusion, disorder, turmoil, hubbub. In Ka. *allōlakallōla* the latter element *kallōla* is an echo or jingle of a type common in popular and expressive speech in many

¹ Ta. *alacu*¹ to be weary, Ta. *alacu*² to shake and so forth. Kittel does this for the Kanarese words. Note that Tamil has also a third word, *alacu*³ meaning 'to wash, rinse'. This is connected with the following set: Ta. *alampu* to wash, rinse, *alavu* to spill, Ka. *alambu*, *alumbu*, *alabu*, *alubu* to rinse, wash, *alasu* to agitate in water as cloth for cleansing, Tu. *alambuni* to wash, *lumbuni* to plunge, wash, rinse.

Indian languages and otherwise has no independent existence. From *allōlakallōla* late Sanskrit has extracted the latter half and made it into an independent word, *kallōla*- wave. There is little doubt that Kanarese in particular out of the Dravidian languages is the source of the Sanskrit word.

4

Skt. *alga*-, *au* m. du, the groin is recorded only from one passage, VS. 25, 6 (= MS 3, 15, 6) where the commentators Uvāta and Mahīdhara explain *algau* as equivalent to *vaṅkṣanau*, *ūrusandhī*. There are some similar words with related meaning in Dravidian: Ta. *alkul* side, waist, middle, loins; pudendum muliebre, Ma. *alkītam* pudendum muliebre, Kota (Emeneau, *Kota Texts* i, p. 164) *algalv* loins. The final *-l* in Ta. *alkul* is suffixal; cf. Ta. *maruṅkul* side, waist, beside Ta. *maruṅku* id. Note also Tu. *alle* the side, groin, hip, which may be connected here.

5

The Indian theorists of the drama enumerate four kinds of style or manner (*vr̥tti*), namely *kaiśikī* the graceful, *sāttvatī* the grand, *bhāratī* the verbal, and *ārabhaṭī* the violent-style. Of these the *ārabhaṭī vr̥tti* is associated with scenes of violence, tumult, disorder, confusion, anger, fighting, and so forth.¹ It has four subdivisions which need not be detailed here. Such scenes are the fight between Mādhava and Aghoraghanṭa in the *Mālatīmādhava*, the scene of confusion when the monkey escapes in the *Ratnāvatī*, and the attack on Vindhyaketu in *Priyadarśikā*, Act I. Bharata describes this *vr̥tti* as *ārabhaṭaprayaguṇā* 'having mainly the qualities of an *ārabhaṭa*'. Apart from this passage and lexicons depending on it the word *ārabhaṭa*- does not seem to be recorded. Its meaning according to Hemacandra² is 'active, enterprising',

¹ Māyendrajālasaṅgrāmakroddhobhrāntādicesṭhitaiḥ | saṃyuktā vadha-bandhādyair uddhatārabhaṭī smṛtā, *Sāhityadarpaṇa* vi, 132-3; cf. *Bhar. N.Ś.* 23, 57-8, *Daśarūpa* ii, 94-8, *Nāṭyadarpaṇa* 108, *Nāṭakalakṣaṇaratnakōśa*, pp. 57-8, Keith, *Sanskrit Drama*, pp. 327-8.

² *Abhidhānacintāmaṇi* 285 Comm.; *ārabhaṭāḥśōtsāhā analasās teṣāṃ iyam ārabhaṭī*.

and this meaning is also given by Abhinavagupta.¹ On the other hand it is explained in the *Nāṭyadarpaṇa*² as equivalent to *uddhata-*, that is to say 'a violent, turbulent man'. With this the *Nāṭakalakṣaṇaratnakośa* is in agreement, since it paraphrases Bharata's *ārabhaṭapṛāyaguṇā* by *samuddhata-pṛāyaguṇā*. Of these two meanings given, the second is obviously more appropriate, since it corresponds exactly with the nature of the *ārabhaṭi vṛtti* as described and illustrated from the dramas. The Petersburg Dictionary follows Hemachandra in defining *ārabhaṭa* as an enterprising man, and derives the word from *ārabh-* 'to undertake (something)'. This is not satisfactory since for the reasons already given the meaning of *ārabhaṭa-* must have been 'a violent, turbulent man', and not 'an enterprising man'. Formally it is unsatisfactory since there is no suffix *-ta* in Sanskrit which makes nouns from verbal stems. Further it is significant that it did not occur to Sanskrit authors who looked for an etymology for the word, to connect it with *ārabh-*. They sought other explanations and clearly were oblivious of a connection which the modern lexicographers have taken for granted. Their explanations, of course, are no better than the one we have already rejected.

The Dravidian languages provide an obvious etymology for this word. This is to be found in the following words:—

Ka. *ārbāṭa* crying aloud, roaring, a loud noise, *ārbāṭa* id., Tu. *ārbāṭa*, *ārbhaṭa*, *ārbhaṭe* a fearful noise, uproar; a joyful cry, triumph, Te. *ārbhaṭamu*, *ārbhaṭi* cry, roar, uproar, Ta. *ārppāṭam* uproar, loud cry; boisterous behaviour. These words are very similar in form and meaning to the Sanskrit word, and its origin is obviously to be sought here. The Dravidian words are derived from a common root *ār* meaning to shout which appears as follows:—

Ta. *ār* to shout, roar, bellow, *ārppu* loud, tumultuous noise; exultation; battle, Ma. *ārkuka* to cry aloud, roar,

¹ Commentary on *Bhar. N.Ś.* (ed. GOS.) i, p. 20; *iyartīti arā bhaṭāḥ sōtsāhā analasās teṣām iyam ārabhaṭi*.

² *Loc. cit.*; *āreṇa pratodakena tulyā bhaṭā uddhatāḥ puruṣā ārabhaṭāḥ*.

shout, Ka. *ār* to cry aloud, *ārpū*, *ārbu* crying aloud, Tu. *ārkuni* to cry out, shout, Te. *ārcu* to cry aloud, shout, roar, Kui *ārpa* to call. Compare also Mar. *āraṇem* to utter its cry, to crow—the cock, which looks like a loanword from Dravidian.

6

Skt. *ukhā* f. cooking pot, pan is a common word, particularly in the Brāhmaṇa literature. An isolated instance of *ukha-* m. in the same sense is also quoted. Besides this the dictionaries also give *ukha-* m., *ukhā* f. in the sense of ‘a particular part of the upper leg’. This second word has no connection with the first in meaning and they must be regarded as two homophones. The latter word is of very infrequent occurrence, the dictionaries giving only three instances—*Lāty. Śr. S. (ukhasya)*, *Caraka-saṃhitā, Śārīrasth°*. 7, 11 (*ukhe* n.du. in a list of the parts of the body) and *Gaṇapāṭha* on Pāṇini iv, 1.56 (*ukhā* f.). Commentators on the three texts explain the word respectively as follows: (1) *kaṭisannikṛṣṭajaghanapradeśe ukhaḥ*, (2) *ukhe iti kakṣasya pārśvayor nimbabhāgau*, (3) *ukhā = sphik*. A portion of the body in the region of the hip is indicated by this evidence. To these passages we must add RV. iv, 19.9, where *ukhacchid* ‘one who breaks his *ukha*’ is used in the sense of a lame person (Windisch, *Festgruss an Böhtlingk*, p. 115). Finally we may note *ukhe* in KS xxxi, 2 (= MS iv, 1.3), which Geldner, in the notes to his translation of the above Rgvedic passage, quotes and considers to mean a part of the body (*tasyôkhe asraṃsetām* ‘his (Prajāpati’s) *ukhas* collapsed’).

On the etymology of *ukhā*¹ see Walde-Pokorny i, 24. The second word appears to be of Dravidian origin. Compare the following words: Ta. *ukkam* waist, *ukkal* side, *ukkalai* the hips, *okkal* hip, side of the body, *okkalai* id., Ma. *ukkam* middle, hip, side, *ukkal* id., *okku* hip, loins, Te. *okka* the hip, waist.

7

Skt. *uñch-* means ‘to glean’; with *pra-* (*proñch-*) ‘to rub, wipe, wipe out, efface’. The latter word has persisted through-

out the successive stages of Indo-Aryan: Pa. *puñchati* to wipe off, clean, Pkt. *pumchai*; for the modern IA derivatives see *Nep. Dict.* s.v. *puchnu*. Comparing the meanings of Skt. *uñch-* and *proñch-* it is clear that a more general and original meaning is preserved in the compound than in the simple verb. The latter has developed a secondary and specialized meaning 'to glean' from an originally more general meaning 'to wipe, scrape; to wipe up, scrape up'. This verbal root can be derived from some Dravidian words meaning 'to rub, scrape, etc.'; Ta. *uriñcu* to rub, wear, grind, scrape, Ka. *ujju* to rub, make fine by rubbing, *urdu*, *uddu* id. The Tamil word corresponds exactly to the Sanskrit word. Since the *-i-* in Ta. *uriñcu* is in all probability a svarabhakti vowel, an original **urñcu* is to be presumed. The Sanskrit word is derived from a form with *-r-* assimilated; such an assimilation is found also in Ka. *ujju*, which in addition has lost the nasal element. Ta. *uriñcu* < **urñcu* is to be analysed into a root *ur* + a suffix *-ñc-*. The root appears in many words: Ta. *urai* to rub, *uracu* to rub against, Ma. *urasuka* to rub, *wrekka* id., Ka. *orasu* to rub, scrape, wipe, Tu. *uresuni* to rub, polish, Te. *oracu* to rub, etc.

The meaning 'to glean' in the case of Skt. *uñch-* develops as a result of its use in connection with *śila-* m. in phrases like *śilān apy uñchatah* (Manu. 3.100) 'of one scraping up the gleanings' (*lūnakedāraśeṣadhānyāni śilās tāny apy uccin-vatah*, Kullūka). This word also appears to be of Dravidian origin; compare Ka. *cillu* smallness, Te. *cilla* bits, fragments (Brown), Tu. *cillu* a small piece, Ta. Ma. *cillu* id., Ka. *cillara*, Te. *cillara*, Ta. *cillarai* sundries, trifles, odds and ends, small change, etc.

From this combination we get the tatpuruṣa compounds *śilōñcha-* and *śiloñchana-* 'gleaning'. The compound *śiloñcha-* then came to be misunderstood as a dvandva, so that is found sometimes in the masculine dual, and an attempt is made to distinguish *śila-* and *uñcha-* as two different kinds of gleaning (Manu x, 112, and Kullūka's commentary). Another result of this misunderstanding is that the members

of the compound are put the other way round in *uñchaśīla*- (Lex.) 'gleaning'.

8

Skt. *kañká*- m. heron is recorded from the VS. onwards. Similar words meaning 'heron; crane' are common in the Dravidian languages, so that it may reasonably be assumed that the Sanskrit word is derived from this source:—

Ta. *kokku* common crane, *grus cinerea*; stork, paddy-bird, Ma. *kokku* paddy-bird, heron, *kokkan* id., Ka. *kokku*, *kokkare* crane, Tu. *korngu* crane, stork, Te. *koṅga* crane, *kokkera* id., Kuvi *koṅgi* crane, Kui *kohko* paddy-bird, Brah. *khākhur* demoiselle crane. As there is no short *o* in Sanskrit, a short *a* is usually substituted in loanwords from Dravidian. The Sanskrit word therefore represents a Dravidian stem **koñk*-. The alternation *kk* (Ta. *kokku*)/*ṅg* (Te. *koṅga*) represents original alternation *ñk/ṅg*, the nasal being assimilated in the first form.

As evidenced by Tu. *korngu* an original *-r-* has been assimilated in most of these forms. This makes it possible to bring the following words into the same family: Ta. *kuruku* heron, stork, crane, Ma. *kuru* heron, *kuriyan* heron, paddy-bird, Go. (Lind) *koruku* a crane, cranes. Corresponding words are to be found in the Uralian languages, as follows: LpN. *guorgga* *grus cinerea*, Fi. *kurki* crane, MdM. *kargo*, E: *karga* id. | Sam. Ju. *haro*, *haru*, O. *kara*, K. *karo* id. (Paas. Beitr. no. 114, Leht. FUF. xxi, 11). Compare also SamT. *koka're* crane, with Ka. Te. *kokkera*, Brah. *khākhur*. In these latter words an *r* has been assimilated which appears in another loanword in Sanskrit: *karkarāṭuka* Numidian crane, *karkareṭu*, *karkareḍu*, *karkareḍuka* id. The simplest form of the word, which appears in Ma. *kuru* and the Sam. forms, is the basis of Skt. *karaṭu*, *kareṭu* Numidian crane. The suffixal element containing *-ṭ-* in the Sanskrit words is somewhat obscure.

There is also in Sanskrit a homophone *kañka*- m. meaning a kind of mango (Lex. = *mahārājacūta*). This can be compared

in the same way to Ta. *kokku* mango tree. According to the commentator on *Tolkāppiyam*, *Coll.* 400, this is a Tuḷu word. The actual form in Tuḷu at present is *kukku* mango. The word does not seem to occur in the other South Dravidian languages.

The Sanskrit dictionaries give also *kaṅkā* f. the scent of a lotus; a kind of sandal. Compare Ta. *koṅku* pollen; fragrance, odour.

9

Skt. *kara-* m. tax (Mn. MBh., etc.) has no obvious connection in meaning with *kara-* in other senses. B.R. class it with *kara-* ray, beam, and derive it from $\sqrt{k\bar{r}}$ to strew, scatter, a derivation which is unsatisfactory semantically. A Dravidian etymology is available, as Tamil has a similar word, *karai* tax, tribute (Cil. 23, 127); cf. *karavu* id. (Pe.TM.). These Tamil words cannot be derived from the Sanskrit word, as they have a transparent etymology in Dravidian, being derived from a verb meaning 'to milk': Ta. *kara* to milk, *karappu* milking, *karavai* milking; a milch cow, Ma. *karakka* to milk, Ka. *kare* to milk. The metaphor is natural and familiar in Sanskrit literature: *Saundarananda* ii, 19, *gām adharmaṇa nādhrukṣat kṣīratarṣeṇa gām iva*, *Raghuvamśa* i, 26, *dudoha gām sa yajñāya, sasyāya Maghavā divam*. Compare also Manu vii, 129:—

Yathālpālpam adanty ādyam vāryokovatsaṣatpadāḥ |
tathālpālpō grahītavyo rāṣṭrād rājñābdikah karaḥ||

10

Skt. *karōṭa-* m., *karōṭi-*, °ī f. is used in the sense of 'cup, bowl' and also in the sense of 'skull'. It is not a common word, nor recorded early. Pali has *karōṭi* f. in the same senses. Compare the following Dravidian words:

Ta. *cirattai* cocoanut shell, begging bowl, *carattai* id. (*Loc.*), Ma. *ciratta* cocoanut shell, chiefly the lower half. These represent an original **kirattē* (cf. *BSOAS*. xi (1943) pp. 122 ff.). A variant form, with *u* instead of *i* in the first syllable, appears

in Ma. *kuratta* nut, kernel; cf. Tu. *korantu* the kernel or stone of fruit. With *a* as variant in the first syllable, Ka. has *karata* the shell of a cocoanut; cf. Mar. *karī* the shell of a cocoanut, a vessel made from it; skull. The vocalism of the Sanskrit word bears the same relation to that of Ma. *kuratta* as is found in comparing Go. *sawwōr* salt, *malōl* hare with Ta. *uvar*, *muyal*. The original meaning is 'nut, cocoanut', whence the meanings 'vessel' and 'skull' develop.

In Ka. *kanta* shell of a cocoanut the *-r-* has disappeared. There is also a whole series of words in Dravidian connected with the above and meaning 'nut', in which an *-r-* has been lost: Ta. *kottai* nut, stone, kernel, Ma. *kotta* kernel of fruit, Ka. *kotte* the stone or kernel of fruit, *gotta*, *gorate* id., Tu. *kotte* the kernel of a nut, *gottu* id., Kur. *gotā* any seed which forms inside a fruit or shell, Malt. *gota* a seed or berry, Brah. *gadda* a fruit stone. The initial voicing in some of these words is, as frequently, a sign that an *-r-* was originally present.

That the words above can be analysed into root + suffix, is indicated by Ta. *kuru* nut (*Loc.*), Ma. *kuru* kernel, nut.

11

For 'mushroom, fungus' Sanskrit has *chattra-*, literally 'umbrella', also *chattraka-*, *chattrāka-*, and more poetically *ahicchatra(ka-)* lit. 'snake's umbrella'. Besides these words Manu and others have also *kavaka-* mushroom. This could be a Dravidian word corresponding in meaning to Skt. *chattra-*; compare Ta. *kavikai* umbrella. The Tamil word is derived from a verb meaning to cover, just as Skt. *chattra-* is derived from *chad-*: Ta. *kavi* to cover, overspread, surround, cover with an umbrella, overshadow, *kavippu* covering, canopy, umbrella; cf. *kavavu* to embrace, *kavai* to contain within oneself, to include, Ma. *kaviyuka* to be overflowed, Ka. *kavi* to cover, overspread, *kavacu*, *kavicu* to cause to overspread, to put on, Tu. *kabiyuni* to overspread, as clouds, Te. *kaviyu* to spread, fall upon; cf. Ka. Tu. Te. *gavi* cave.

Kittel (*Kann.-E. Dict.*, p. xxxii) derives from the same source Skt. *kavaca*- coat of mail, corset, jacket; bark of a tree. This etymology appears unobjectionable. Words from the same root in a similar specialized meaning are found in Kanarese: *kavudi*, *kavadi* a quilted cover, *gavasaṅige* a cover, a wrapper, a cloth, a case, a sack; any cover or case, *gavasaṅi* id. A contracted form of this latter word is Ka. *gōṇi* sack, Te. *gōne* id., from which Skt. *goṇī* sack, is derived. The native Kanarese grammarians count *gōṇi* as one of the 21 tatsamas, that is to say words which exist both in Kanarese and Sanskrit, but which they do not consider to be borrowed from Sanskrit.

12

Skt. *kavara*- m. *kavarī* f. a braid or fillet of hair, *kavarabhāra*- m., *kavarībhara*- m. a fine head of hair, *kavarapuccha*- m.f. (ī) n. having a tail resembling a braid, Pāṇ. iv, 1.55, Vārtt. 2.

~ Ta. *kavari* a chowrie (*Narr* 241, etc.), Ma. *kavaram* hairplait, *kavari* a woman with fine hair, Ka. *kabari*, *kavari* a braid or fillet of hair; a knot of braided hair, Tu. *kabari* the tufted hair of females.

The meanings given by the dictionaries vary between 'braid of hair' and 'tuft or knot of hair'. Probably the latter meaning should be given in all cases. That such is the meaning in Sanskrit, for instance, is indicated by the compounds *kavarabhāra*- and *kavarībhara*-. Kittel and Gundert treat the Kanarese and Malayalam words respectively as loans from Sanskrit. The opposite must be the case, firstly because the Sanskrit word is comparatively rare and has left no trace in the modern spoken languages, whereas it is thoroughly established in all the South Dravidian languages, and secondly because the other Dravidian words cannot be separated from Ta. *kavari* which on account of its different meaning cannot be derived from Sanskrit. The two meanings of the Dravidian words are, of course, easily reconciled, and a good parallel is offered by Ta. *pittai* hair-bundle, etc. (*BSOAS*. xi (1944) p. 348). The Skt. compound *kavarapuccha*-, which occurs only in the commentaries on Pāṇini, is to be

viewed in connection with Ta. *kavari*, and must mean therefore 'having a bushy or tufted tail'. The meaning given in Monier-Williams' Dictionary, 'having a twisted tail or one resembling a braid' is misleading.

Another Dravidian word meaning 'coil, tuft, or bundle of hair' deserves mention here: Ta. *koppu* chignon, coil of hair, Ka. *koppu* a female's hair tied in a tuft, Te. *koppu* hair tied in a tuft worn at the back of the head, chignon, Kui *kopa* coil of woman's hair, Go. *kūpaṛ* the top knot of hair, Kur. *khopā* hair-bundle, chignon. This word has found its way into most of the modern Indo-aryan languages. See *Nepali Dictionary* s.v. *khop*³. The two words, *koppu* and *kavari* are connected ultimately. The addition of suffixes results frequently in the weakening of intervocalic consonants, so that *kopp* + *ari* would be expected to give **kovari*. The form *kavari* is explained by the fact that the distinction between *o* and *a* is not rigidly preserved in Dravidian.

13

Skt. *kavala*- m. a mouthful, morsel, *kavalaya*- vb. to swallow, gulp down, devour, *kavaḍa*- m. a mouthful of water, Pa. *kabala*-, *kabaḷa*- m.n. a small piece, ball of food, mouthful, Pkt. *kavala*- m. id. For ModIA forms see *Nep. Dict.* s.v. *kaṅṅā*.

The variation in Sanskrit between *l* and *ḍ* points to an original *ḷ*, which occurs in Pa. *kabaḷa*-. This *ḷ* also appears in Ta. *kavaḷam* morsel or mouthful of food, a word common in the early literature (*Kurunt*^o 170, *Mullaip*^o 36, etc.). A variant form *kavaram* is also found in Tamil (*Kalit*^o 80). The word is native to Dravidian, as shown by its connection with other words in those languages. Compare Ta. *kavvu* to bite, seize by the mouth, as a dog, Kui *kavali giva* to chew the cud. In accordance with the usual consonant alternation, the *-v-* is weakened out of an original *-pp-*, and therefore the following words are etymologically connected: Ma. *kappu* to snap at, eat as a dog, Ta. *kappu* to gorge, cram into the

mouth, Tu. *kappuni* to eat greedily, Kui *kappa* to swallow, gulp, Kur. *khappnā* id.

14

Skt. *kulattha-* m. a kind of pulse, *Dolichos uniflorus*, Hi. *kulthī* id., etc. (*Nep. Dict.* s.v. *kurthi*).

~ Ta. *kol* horse-gram, *Dolichos uniflorus* (*Puraṇ°*, etc.), Ma. *kollu*, Tu. *kuḍu* id. The Dravidian words are equivalent to the first part of the Sanskrit word. The second part of the Sanskrit word is a rather obscure suffix which appears also in *aśvattha-* *Ficus religiosa*, and with a different vowel in *kapittha-* *Feronia elephantum*.

15

Skt. *kūṭa-* appears in the dictionaries with a bewildering variety of meanings. In fact there is a whole bunch of homophones bearing this form which need carefully separating from each other. As they are mainly derived from Dravidian, that will be done here, and the etymologies, as far as available, provided.

In the first place it is necessary to get rid of one of the meanings provided, that is 'the bone of the forehead with its projections or prominences, horn'. This meaning is given by B.R. for the following passages: RV. x, 102, 4, AV. 8, 8, 16, ŚB. 3, 8, 1, 15, AitB. vi, 24. The authority for this rendering rests solely on Sāyaṇa's commentary on the passage in ŚB; different renderings are offered by him in the case of the RV. and AitB. passages. A study of the context in these four citations, and also in JB 1.49 shows that this rendering is unsuitable, and that in all cases the meaning is 'mallet' or 'hammer': see Geldner, *Vedische Studien* i, 137-9, and Oldenberg, *Noten* on RV. x, 102, 4. Consequently Kittel's comparison (*Kan-Eng. Dict.* p. xx) of Skt. *kūṭa*-horn with Ka. *kōḍu* horn, Ta. *kōṭu*, etc., falls to the ground owing to the non-existence of such a meaning in Skt. It is possible that Sāyaṇa, a southerner, was influenced by Dravidian in his rendering of *kūṭa-* in the ŚB passage.

There remain the following homonymous words :—

(1) Skt. *kūṭa-* n. mallet; hammer RV., etc., *kuṭa-* n. a hammer, mallet for breaking small stones Lex., Pa. *kūṭa-* n. a hammer, Pa. *kūḍa-* n. stone hammer; in ModIA, apart from Sgh. *kuḷ* hammer, this word is preserved only in forms which represent an original compound **hastakūṭa-* (see *Nep. Dict.* s.v. *hotro*). As regards the etymology of this word we may reasonably follow Kittel (*Kan.-Eng. Dict.*, p. xxxiii; cf. J. Bloch, *BSOS.* v, 738) who compares it Ka. *kuttu* to beat, strike, pound, and its correlates, whence also Skt. *kutt-*, *kuttayati* to pound, etc., are derived (*BSOAS.* xi, 134). Compare Ta. *kuttu* to cuff, strike with the fists, *kottu* to beat, strike, pound, Ma. *kottu* to beat, *kuttu* to pound, *kotti* a mallet, Ka. *kuttu* to pound, *koḍati* a wooden hammer, Tu. *kuttuni*, *kottu* a spade, Te. *kottu* to beat, strike, Malt. *goṭe* to knock, strike, break, Kur. *khottṇā* to break.

(2) *kūṭa-* n. part of a plough, ploughshare, body of a plough; Hi. *kūr* body of plough, Panj. *kuṛ* bottom of plough, La. *kuṛ* ploughshare. This word is not common in Sanskrit, and is quoted only from native lexicons; on the other hand it is quite widespread in ModIA. Superficially it might seem plausible to identify it with the last word, but as there are some similar words in Dravidian with exactly the same meaning, it is better to follow Kittel (*Kann. Eng. Dict.* p. xxxiii) and derive it directly from them. Compare Ta. *koṛu* bar of metal, ploughshare, Ma. *koṛu* ploughshare, Ka. *kuṛu*, *guṛu* a bar of iron, a ploughshare, Tu. *koru* a bar of metal.

(3) *kūṭa-* n. summit, top, summit or peak of a mountain, *kūtāgāra-* an upper room, apartment on the top of a house, *trikūṭa-*, *citrakūṭa-*, *grḍhrakūṭa-* names of mountains, *aṃsakūṭa-* the tip of the shoulder, *akṣikūṭa-* the corner of the eye next to the nose¹, Pa. *kūṭa-* pinnacle, top, peak, Pkt. *kūḍa-* top of a mountain, etc., Sgh. *kuḷ* summit.

~ Ta. *kōṭu* summit of a hill, mountain, peak, *kuvaṭu* top

¹ *Akṣikūṭe* = *akṣināsikayoḥ sandhī* (*Mitākṣ.* on Yājñ 3.96), not 'the prominent part of the forehead above the eye' (MW. following B.R.). Pali has *akkhikoṭi-* beside *akkhikūṭa-* which makes the meaning clearer.

of a hill, peak; mountain, hill, Ma. *kōṭu* end, corner, *kuvaṭu* hill, mountain top, Ka. *kōḍu* a point; the peak or top of a hill, Malt. *qōru* the end, the top as of a tree.

From the same source is derived Skt. *koṭi-* f. tip of a bow, tip, top, point, highest point, etc. The Dravidian words with a suffix *-i*, which are nearest to this, have suffered shortening of the first vowel: Ma. *koṭi* top, extremity, tip (of finger, tongue, nose, etc.), Ka. *kuḍi* a pointed end, a point, Tu. *koḍi* point, end, extremity, Te. *koḍi* tip, top; the end of point or flame.

(4) *kūṭa-* m. a heap, multitude, collection (*samūha-*), Pa. *kūṭa-* heap, accumulation, *sankāarakūṭa-* rubbish heap; Or. *kurha* heap. The etymology of this word is correctly given by Kittel (*Kan.-Eng. Dict.* p. xxxix) who connects it with Ka. *kūṭa* collection, multitude, heap, a noun derived from the verb *kūḍu* to come together, assemble, etc. The relevant Dravidian words are as follows: Ta. *kūṭu* to come together, congregate, assemble, *kūṭṭam* union, combination; crowd, flock, etc., Ma. *kūṭuka* to come together, meet, etc., *kūṭṭam* junction, assembly, flock, heap, Ka. *kūḍu* to join, etc., *kūṭa* joining, coming together; heap, multitude, assemblage, Tu. *kūḍuni* to meet, *kūṭa* assembly, Te. *kūḍu* to come together, *kūṭamu* meeting, union, *kūṭuva* heap, collection.

(5) *kūṭa-* adj. mfn. false, untrue, deceitful, sb. n. fraud, untruth, falsehood; frequent in cpds. like *kūṭasākṣin-* false witness, etc., Pa. *kūṭa-* n. falsehood, deceit, Pkt. *kūḍa-* id.; Mar. *kuḍā* false, treacherous and related words in ModIA. (J. Bloch, *Langue Marathe* p. 312). This word is connected with the following words meaning 'crooked' in Skt.: *kuṭ-*, *kuṭati* to become crooked or curved, *kuṭi-* °ī f. curvature in *bhrukuti-* °ī, *kuṭika-* bent, crooked, *kuṭila-* bent, crooked; dishonest, fraudulent. All these words are derived from Dravidian. The Dravidian words can conveniently be divided into those with a long vowel (whence *kūṭa-*) and those which have suffered a shortening of the radical vowel (whence *kuṭ-*).

(a) Ta. *kōṭu* to bend, be crooked; (*sb.*) crookedness, flexure, *kōṭṭam* bend, curve; crookedness of mind; bending from the

path of justice, Ma. *kōṭuka* to be crooked, twisted, awry, *kōṭtam* crookedness, distortion, Kui *kōṇḍa* to be curly, bent, twisted, *gōṭori* hooked, bent like a hook.

(b) Ta. *koṭu* crooked; unjust, wicked, etc., *kuta* curved, bent, *kutakkam* bend, curve, crookedness, *kutaṅku* to bend, *kutantai* curve, *kutavu*, *kutā* bend, curve, Ma. *koṭu* bent (*koṭuṅ-kai*) Ka. *kuḍu* bent, crooked.

(6) *kūṭa-* n. a trap, snare for birds and wild beasts, Rām., etc.,¹ Pa. *kūṭa-*, Pkt. *kūḍa-* id. At first sight this might seem to belong together with the last. It is better, however, to derive it directly from the following Dravidian words:—

Ta. *kūṭu* nest, bird-cage, coop, hive, Ma. *kūṭu* receptacle, nest, cage, Ka. *gūḍu* nest, dove-cot, cage; trap for catching wild animals, Tu. *gūḍu* nest, bird-cage, Te. *gūḍu* nest, cage, Go. *kūṭinj* a stone-fall trap, such as boys set for birds, Kuvi *kūḍa* (Fitzg., presumably *kūḍa*) a cage (made of bamboo), Kui *kīrenji* a cage, cage-trap.

(7) *kūṭa-* m., *kūṭi* f. a house, dwelling Lex. These are variants with a long vowel of the more usual forms with a short vowel, *kuṭa-* house, *kuṭi-* °i f. hut, cottage. These are derived from Dravidian; Ta. *kuṭi* hut, house, etc., *BSOAS*. xi (1943) p. 137. Compare also, in addition to the forms quoted there, Ta. *kottil* shed, hut, cowstall, *kottakai* shed with sloping roof, cowstall, marriage pandal, Ma. *kottil* cowhouse; shed, barn, workshop; house, Ka. *kottage* a stall or outhouse, Tu. *kotta* a hut or dwelling of Koragars, Te. *koṭika* a hamlet, small village, *kottamu* a stable for cattle and horses, *kottāyi* a thatched shed. The Sanskrit lexicographers have also preserved a variant with the vowel *o*: Skt. *koṭa-* m. shed, hut.

(8) *kūṭa-* n. pot, pitcher Lex. More common is the variant with a short vowel, *kuṭa-* m. id. This is derived from Dravidian: Ta. *kuṭam* pot, Ka. *koḍa*, etc., *BSOAS*. xi (1943) p. 138.

(9) *kūtā-* mf(ā)n. without horns, of an animal, AV, TS, etc.,

¹ *kūṭa-* in AV. 8, 8, 16, the passage referred to above, is explained by some as meaning 'trap'. This is supported by the mention of *pāṣa-* in the previous line, the two being often mentioned together. On the other hand the verb *han-* which is used with it points more in the direction of 'hammer, mallet'.

Pa. *kūṭa*- id. This is possibly Dravidian. Compare Ta. *kūrai* that which is short, *kūraik-kiṭā* tailless he-buffalo, *kūraik-kompaṇ* an ox with blunt horns, *kūraik-kai* maimed hand, *kūrai-nari* a short-tailed fox, Ka. *kūle*, *kūre* stump, stubble.

16

Skt. *kūrpara*- m. the elbow, Suśr., etc., Pa. *kappara*-, Pkt. *koppara*- id.

~ Ta. *kopparam* elbow, Ka. *koppara* shoulder-blade (Kittel, with question mark as to exact meaning), Te. *kopparamu*, *kopramu*, *kopru* id. The irregularity of the vowel of the first syllable is an indication that the IA words are borrowed. What connection, if any, exists between these words and Skt. *kaphoṇi*- elbow, is not easy to say.

17

Skt. *kaurukuca*- mf(ī)n. appears as a hapax legomenon in *Pādatāḍitaka* v. 5, and its meaning 'given to grumbling' is made clear by the context:—

Na prāpnuvanti yatayo ruditena mokṣam
svargāyatim na parihāsakathā ruṇaddhi |
tasmāt pratītamanasā hasitavyam eva
vṛttim budhena khalu kaurukucīm vihāya||

“ Hermits do not attain salvation by weeping, and gay chatter does not bar the approach to heaven; therefore a wise man must laugh with cheerful mind, putting aside the habit of grumbling.” The derivative form *kaurukuca*- presupposes a simple form from which it is derived; this must have been either **kurukuca*- or **kurukucā*. Such a form is not recorded in the Skt. dictionaries, but a very similar word is found in Tuḷu: *kurukucci* grumbling, murmuring. The rare Sanskrit word is therefore in all probability of Dravidian origin. Ultimately, of course, the word is onomatopoeic.

18

The following words meaning 'saw' are found in Sanskrit and the languages derived from it: Skt. *krakaca*- MBh., etc.,

Pa. *kakaca*, Pkt. *karakaya*-; Skt. *karapatra*-, Mar. *karvat*, Nep. *karāti*, etc.; Pa. *khara*- a saw. It does not make much sense to derive *karapattra*- from *kara*- hand; it can, however, be reasonably connected with the other words in this list, all of which are derived from Dravidian. The phonetic irregularities involved have their explanation in the fact that the words are borrowed. The following Dravidian words can be compared :—

Ta. *karukku* teeth of a saw, jagged edge of a palmyra leaf, Ma. *karikku* edge of teeth, *karukku* teeth of a saw, Ka. *karku*, *karaku* rough, jagged edge, Tu. *gargāsu* a saw, Te. *karakasa* roughness, *karagasamu* a saw.

The Dravidian words are derived from a root *kar*- meaning 'hard, rough, uneven', and the saw is so named on account of its jagged edge. Many Dravidian words are derived from this base: Ta. *karakara*, to feel irritation as from sand or grit in the eye; to be hoarse, *karatu* roughness, ruggedness, unevenness; knot as in wood, *karil* severity, pungency, *karan* the uneven surface in vegetables and fruits, *karumai* severity, cruelty, Ma. *karatu* what is rough, uneven, hard, *kari-muļ* a hard thorn, *karukarukka* to be harsh, sharp, rough, *karuma* hardness, sharpness of a sword, strength of a man, Ka. *karadu* that which is rough, uneven, unpolished, hard, *karku*, *karaku* rough, jagged edge, etc., *garaku*, *garku* jaggedness, unevenness, roughness, uneven surface, *garusu* gravel, Tu. *karñkallu* gravel, hard sand, *karadu* rough, coarse, *garu* rough, *kargōta* hardness, hard-heartedness, Te. *kara* sharp, *karakasa* roughness, *karusu* rough, harsh, *gari*, *garusu* gravel.

Related words in the Uralian languages can be quoted here: Fi. *karkea* rough, hard, *karea* durus, siccus, *karaista* durare, *karhea* asper, durus, *karmea* austerus, asper, LpN. *garas* hart, *garrat*, *garam* hart werden, erstarren, Voty. *kurit* bitter, scharf schmeckend, Zyr. *kurid* id. | SamJe. *korega'a* hart, etc.

The following Skt. words are also derived from this source: *khara*- adj. hard, harsh, rough, sharp, pungent, acid, etc., *kharu* harsh, cruel; *karkara*- hard, firm, *karkaśa* hard, firm, rough, harsh. Of these *khara*- corresponds to the simple

forms like Te. *kara* sharp; *karkara-* is based on a reduplicated form as in Ma. *karukarukka* to be harsh, sharp, rough; *karkaśa-*, like Te. *karakasa* roughness, arises by a special form of reduplication, that is the addition of a 'tag', slightly modified in form from the first, radical syllable. Skt. *krakaca-*saw, arises in the same way, and its initial *kra-* is due to a phonetic development seen in some Dravidian languages (e.g. Telugu, Kui) by which *r* is transposed. (Compare Te. *krakku* to vomit < **karkku*: Ta. *kakku* with assimilation.)

19

Skt. *khaṇḍ-*, *khaṇḍate* to tear, break into pieces, *khaṇḍayati* to cut, divide, tear in pieces, *khaṇḍa-* m.n. a piece cut off, fragment, bit.

~ Ta. *keṇṭu* to cut up; to dig, *kiṇṭu* to scratch, dig, hoe, etc., Ma. *kiṇṭu* to dig, Ka. *giṇḍu* to pinch with the nails, Te. *ceṇḍu* to cut, *ceṇḍāḍu* to cut to pieces, Malt. *kiṇḍe* to cut flesh or fish.—*BSOAS*. xi (1943), p. 136; ib. (1944), p. 344 (Uralian correspondences).

20

An author of a treatise on the art of theft is mentioned from time to time in Sanskrit literature under the name of *Kharapaṭa*.¹ The same author appears in Tamil as *Karavaṭaṇ*, and his treatise is mentioned in *Cilappadhikāram* xvi, 189, where it is called *karaviṭam*. The author is also, and more commonly in Sanskrit, known by the name of *Karṇīsuta*. Of these names *Kharapaṭa* is merely a Sanskritization of the Tamil name, which is also a word meaning 'thief', derived from the verb *kara* to steal: cf. Ta. *kara* vb. to conceal, hide, disguise; to steal, pilfer; (*intr.*) to lie hidden, *karappu* concealing, hiding; theft, fraud, deceit, *karavu* concealment, theft, deceit, *karavar* thieves, *karaval* concealment, *karavaṭam* act or practice of stealing, deceit, *karavaṭar* thieves deceivers, Ka. *kare* to hide, Te. *karati* deceiver, cheat, Kur. *kharnā* to steal. The suffix in *karavaṭaṇ*, etc., can be compared with that in *ārabhaṭa-*, etc. (no. 5).

¹ *Mattavilāsaprahasana*, etc.

Skt. *capeta-* m. (Divyāv.), *capetā* f. (Pat.), *capetī* f. (Bālar.) a slap with the open hand ; Pkt. *capetā*, *cavidā*, *cavelā* f. id. ; Nep. *capetā* a slap, D. pash. *capilū* slap, Ass. *sāpar* blow with the palm, Si. *capāta* f. slap, Mar. *cāptī* a slap or smack ; Nep. *cameṭā* slap, blow with the palm of the hand, La. *camāta*, Si. *camāta* id. (see *Nep. Dict.* s.vv.).

~ Ta. *cappāni* clapping hands, Ka. *capparisu* to slap, to pat, *cappaḷi* clapping the hands, *cappale*, *cappate* id., *cappaliṣu* to slap, pat, *tappaliṣu* id., Tu. *cappaḷi* clapping the hands, *cappaḷipuni* to clap the hands, Te. *cappaṭa* a clap of the hands, *cappaṭiñcu* to clap, slap, *cappaṭlu* (pl.) clapping of the hands ; Te. *camaru* to slap with the open hand ; (with loss of initial *c-*) Ka. *apparisu* to throw to the ground (in wrestling), *appaliṣu* to strike against, to flap, slap, Tu. *appaliṣuni* to strike against anything with the open hand, to squash, Te. *appaḷamu* clapping, flapping, striking, *appaliñcu* to flap, slap, touch ; smear, apply ; *appalinta* slapping, tapping.¹

Since the meaning of the above words is usually to hit with the *flat* hand, it would seem that there must be some etymological connection between these words and Skt. *carpaṭa-* m., *carpaṭī* f. the open palm of the hand (Lex.) ; cf. Be. *cāpaṛ* open palm, Or. *cāpurā* id. Note also that Te. *capēṭamu*, which is a loanword from Skt. *capeta-*, means 'the palm of the hand with the fingers extended', though this meaning is not recorded for the Sanskrit word.

Skt. *carpaṭa-* also means 'lying flat' (ears) ; cf. Nep. *capleṭi* flat, Mar. *cāpaṭ*, *capḍā* flat, low, Gu. *cāpaṭ* low and flat, Hi. *cāpaṛ* flat expanse of land, etc. With variations of the initial vowel we have also : Skt. *cipaṭa-* flat-nosed (Lex.), *cipiṭa-* flat, flattened (VarBrS.), Pkt. *civiḍa*, *cimiḍha*, *civiḍha-*, Mar. *civḍā* crushed fruits, etc. ; further Nep. *cepto* flat, Kash. *cēpoṭ*^u flat-nosed, Or. *cepā*, *ceptā* flat.

These words are further connected with verbs meaning

¹ This form without initial *c-* has been Sanskritized into *āsphālayati* strikes with the flat hand ; cf. Pkt. *apphālei* strikes, *apphaḍia-* struck, Guj. *apphāvū* to dash against, etc. (*Nep. Dict.* s.v. *āphāḷnu*).

'to flatten, to press, to crush': Pa. *cippiyamāna*- crushed flat, Pkt. *cappaī*, *campai* presses, Hi. *cāpnā* to press, Gu. *cāpvū*, etc.; Mar. *cipṇem* to press, *civadṇem* to crush, Be. *cipā* to press, etc.; Nep. *cepnu* to press, squeeze, depress, Mar. *cepṇem* to press, crush, Hi. *cepṇā* to stick on, paste on, etc.

Corresponding to these words we have in Dravidian: Ta. *cappattai* flatness, anything flat, *cappali* to flatten, *cappu* to be bent, pressed in, *cappai* that which is flattened, Ma. *cippu* what is smoothed, flat, Ka. *capate* flatness, *cappate* id., *cappe* that which is flattened or pressed down, Te. *cappi* flat, not projecting, *cappidi* flat, not projecting, snub. With loss of initial *c-*, Ka. has dialectally *appate* flatness. The same loss of initial *c-* is to be presumed in the case of Ta. *appu* to stick or clap on with the hand as sandal paste, with a trowel, as mortar, to apply, put on (for the meaning cf. Hi. *cepṇā*), Ma. *appi* plaster.

22

Skt. *cikkana*- adj. unctuous, slippery; sb. n. any smooth liquid, gum; Mar. *cikan* tough, gummy, glutinous, unctuous, etc., Mar. Gu. *cīk* gum, resin.

~ Ta. *cikku* to be stuck fast; (*sb.*) a tangle, being entangled, stuck; stickiness of the hair due to oil, *cikkeṇa* firmly, tenaciously, tightly, Ma. *cikku* being entangled, intricacy, *cikkuka* to be stuck, entangled, Ka. *sikku* to be caught, entangled, *cigil*, *jigil* to be sticky, gummy, viscid, glutinous, Tu. *tikkuni* to be ensnared, caught, *tikkatuni* to be matted, as hair, Te. *cikku* tangle; to be entangled, stuck, *cikkā baḍu* to become thick or inspissated, *cikkani* thick or inspissated as a liquid; dense, close as texture, etc.

The meanings given for *cikkana*- in Monier-Williams' Dictionary, 'smooth, slippery, unctuous,' are badly chosen and to a great extent misleading. Substitute 'viscous, sticky, gummy, glutinous, etc.'

Skt. *cikkhalla*- mud, and its derivatives (Mar. *cikhal*, etc.) may reasonably be held to be derived from this same source.

Skt. *cīra-* n. a strip, long narrow piece of bark or cloth, rag, tatter, clothes; the dress of a Buddhist monk; a stripe, stroke, line, *cīvara-* m. iron filings; n. the dress or rags of a religious monk, Pa. *cīra-* n. bark, fibre; a bark dress; a strip, *cīraka-* n. bark; a strip, *cīvara-* n. the robe of a Buddhist mendicant; Nep. *cīro* a splinter, cut, slice, Hi. *cīr* a strip, Gu. *cīr* a slit, *cīro* a long piece of canvas, Mar. *cīr* underclothes, *cīrā* a strip of cloth, etc. (See *Nep. Dict.* s.v.)

~ Ta. *cīvu* to pare off, shave or scrape off, *cīval* parings, shavings, *cīrai* bark of a tree used as clothing (*Tirumuruk*^o 126); cloth, rags, tatters, *cītar* to scratch as a fowl; to be worn out, torn, as cloth (*cītarīṇa cīrai*, *Perumpāṇ*^o 468, Comm.); to separate, split, cut, hack; sb. rag; cloth, *cītarvai* cloth worn out or reduced to a rag (*Perumpāṇ*^o 468), *cītār* cloth, rag (*Puraṇ*^o 150); thin bark of certain trees used as clothing, Ma. *cīvuka* to scrape, peel, polish, *cīval* thinness of cloth, *cīr* a line, Ka. *sigur* a splinter or shiver; what is pared off, rind, *sībaru*, *sīvaru*, *sīvuru* id., *cīvu* to cut thin, shave or scrape; to peel or bark, *cīvu* id., *cīru* a shiver or fragment, *sību* a bamboo slit, *sīre* cloth, garment; female's garment, *sīra* line, stripe, Tu. *sīre* a females' garment, Te. *cīvu* to cut, shave, pare, *cīru* to slash, gash, rend, tear, slice, *cīra* a female's garment; any cloth in general, *jīra* a line, a streak, a stripe.

Skt. *cīra-* represents a contracted and Skt. *cīvara* an uncontracted form of the same word. Compare Skt. (Lex.) *nīvara-* water; mire: *nīra-* water < Dr. (Ta., etc.) *nīr* water, and Dr. *īr*, *sīr*, *cīr* nits, contracted out of **cīvar* (*BSOAS.* xi (1944), p. 349). The form in Dravidian corresponding most exactly to Skt. *cīvara-* is Ka. *sīvaru*, *sīvuru*. This is fairly evidently derived from forms without an *r*-suffix, Ka. *cīvu* to cut thin, shave, peel, bark, etc.; cf. Ka. *sību* a bamboo slit. Some difficulty is caused by the various intervocalic consonants that appear in some of the Dravidian words, namely *-t-* in Ta. *cītar*, etc., and *-g-* in Ka. *siguru*. That latter is probably only a substitute for *-v-*, as happens

sometimes. On the other hand Ta. *-t-* presumably represents an original spirant or sibilant (cf. Kui *sespa* to scrape, plane, shave a stick or piece of wood) which has otherwise disappeared or been replaced by *-v-*.

Skt. *cela-* n. clothes, garment, is also to be connected with these words. Compare Ta. *cialai* small piece of cloth, rag, *citaval* strip of cloth, rag, torn piece of cloth; torn piece; cutting off, cropping, which have an *l-* suffix in place of the *r-*suffix in Ta. *citar*, *citār*. With contraction we have Ta. *cīlai* cloth, garment, Ma. *cīla* cloth, which correspond exactly with Skt. *cela-*. The difference of the long vowel in the two cases is due to the fact that both are the result of a contraction. Compare further Te. *cīlu* to break, split, be torn, *cīlucu* to split, tear, *cīlika* a slice, slit, sliver, shiver, Ka. *sīl* to split, be cleft; (sb.) split, piece, fragment.

24

Skt. *cumb-*, *cumbati* to kiss.

~ Ta. *cūppu* to suck, *cūmpu* to suck, fondle with the lips, Ta. Ma. *ūmpu* to suck, Tu. *jumbuni* to suck, sip, lick, Kui *jūpa*, *jūmba* to suck, Kuvi *jūpali* id.; Malt *cumqe* to kiss (possibly re-borrowing from IA.); Brah. *cūping* to suck.

Dravidian has also a variant series of words with *-ī-* instead of *-ū-*: Ta. *cīppu* to suck, Ka. *cīpu*, *sīpu* id., Te. *cīpu* to make a sound with the lips, Kur. *cīpnā* to suck, Malt. *cīpe* id.

25

Skt. *taṭa-* m. slope, rounded side of a hill; any rounded portion of the body (*stana-taṭa-*, *śroni-taṭa*); bank, shore, Pa. *taṭa-* side of a hill, side of a river or bank, Pkt. *taḍa-* bank, shore; Be. *taṛ*, Or. *taṛā*, Hi. *taṛ* bank.

~ Ta. *tīṭṭu* rising ground, bank, elevation; sand-bank, *tīṭṭai* sand-bank; raised floor, veranda, *tīṭṭar* bank, island, rubbish-heap, *tīṭṭal* id., *tīṭṭaru* mound, *taṭal* high-land (Coll.) Ma. *tīṭṭa* raised ground, hillock, shoal; raised seat as in a veranda, *tīṭṭu* a mound, shoal, Ka. *tīṭṭu* rising ground, a

hillock, *diḍḍu* eminence, elevation, hillock, *daḍa* bank, shore, *daṇḍe* id., Tu. *diḍḍu* elevated ground, mound, Tod. (Pope) *diṭu* hill, Te. *tiṭṭa* heap, mound.

A fluctuation in Dravidian between *a* and *i* (also *u*) in the radical syllable is a feature very commonly met with, although the conditions that cause it are not very clear. Compare the following instances: Ta. *kaṭāvu* to drive, Ma. *kiṭāvuka* id.; Ta. *kaṭā* male buffalo: Ma. *kiṭāvu*; Ta. *alantai* tank, pond: *ilantai* id.; Ta. *malai* to put on wear: Ta. *milai* id.; Ta. *aṭār* a trap: *iṭār* id.; Ka. *daḍumu* thickness, stoutness: Tu. *diḍumbu* corpulence; Ka. *midi* heel: *maḍa* id.; Ka. *iṇaci* squirrel: Ta. *aṇil* id., etc., etc. The difference in vowel between Skt. *taṭa-* and Ta. *tiṭṭu*, etc., is of the same kind.

Intervocally a single unvoiced consonant in Sanskrit very often replaces a double consonant in Dravidian: cf. *capeṭā* (no. 21), *piṭaka-*, *puṭa-* (no. 39), etc.

As Professor Turner points out (*Nep. Dict.* s.v. *talāu*) this word should be separated from Skt. *taḍāga-* m. tank, pond, and Skt. *taṭāka-* which also appears is a mistaken form due to the influence of *taṭa-*. This word *taḍāga-* is also of Dravidian origin, and can be compared with the following words: Ta. *taṭu* to hinder, obstruct, *taṭakku* obstacle, impediment, *taṭam* ridge, dam, causeway; pond (*Kalit*^o 17), *taṭavu* pond (*Puraṇ*^o 105); prison, *taṭai* to hinder, stop; (*sb.*) obstacle, impediment; door; bund, embankment, Ma. *taṭa* resistance, *taṭayuka* to be obstructed, *taṭavu* what resists, wards off; a prison, *taṭekka* to stop, prevent, Ka. *taḍa* check, impediment, delay, *taḍapu* hindrance, impediment, *taḍe* to stop, impede; (*sb.*) a check, impediment, obstacle, Tu. *taḍepini* to check, hinder, etc., *taḍe* a delay, hindrance, *daḍe* an obstacle, hindrance; a screen, blind, Te. *taḍa* hindrance, obstruction, prevention, *taḍayu* to delay.

Skt. *taḍāga-* means an artificial tank or lake, and it is so called on account of the bund, dam, or embankment by which the waters are contained. The word would appear also to have this latter sense sometimes, for instance, in the com-

pound *taḍāgabheda-*, Mn. ix, 279, where Kullūka uses the term *setrubheda-* in his paraphrase.

For this development of meaning compare Ta. *cirai*, Ka. *kere* tank, etc., which have likewise developed from a verb meaning to restrain: Ta. *ceru* to shut in, restrain, prevent, Ka. *kiru* to confine, shut in, etc. (*BSOAS.* xi, 125).

26

Skt. *taraṅga-* m. wave, is usually explained as *taraṃ-ga-* 'across-goer', a compound like *paṭaṃ-ga-*, *plavaṃ-ga-*, etc. This is not very satisfactory semantically, since it is difficult to see why a term of such vague and general meaning should have developed the meaning of 'wave' in particular, and that meaning only a better etymology can be provided by comparing the following Dravidian words:—

Ta. *tiraṅku* to be wrinkled, crumpled, to be curled as the hair, *tirai* to be wrinkled, rolled; to roll as waves; (*sb.*) a wrinkle; a curtain; a wave, Ma. *tira* a roll, as of paper; wave; curtain, *tirekkuka* to roll up, wind up, *tirappu* rolling, Ka. *tere* a wave; what can be rolled up and unrolled, a curtain; a fold, wrinkle, Tu. *šere* a wave, Te. *tera* screen, curtain; wave.

Skt. *taraṅga-* corresponds exactly in form to Ta. *tiraṅku*. This would give Ka. **teragu*, Te. **terāgu*, but the alternative form Ta. *tirai*, Ka. *tere*, etc., has usually prevailed in South Dravidian. The meaning 'wave' in Dravidian is developed from the meaning 'wrinkle, crinkle, fold', since waves give to the surface of the water the appearance of being crinkled. This peculiarity of meaning makes it quite certain that the Sanskrit word is in fact derived from this Dravidian source, because in contradistinction to other words meaning wave in Sanskrit, *taraṅga-* has also the meaning 'wrinkle, fold'. As examples of this last meaning we can quote the compound *carmatarāṅga-* a fold of skin (*Lex.*), and *Kathās*^o 84, 7 *valitrayatarāṅgitām*; of wavy or crinkled hair, *taraṅgitaśiroruhā-Mānasoll*^o iii, 20, 28; cf. also *Dhurtaviṭasamvāda* 3: *kruddhastrībhrukūṭitarāṅgakuṭilā vidyullatā dyotate*, and

Padmaprābhṛtaka 7: *kiṃ kṛtvā bhrukuṭitaraṅgaviṣamaṃ roṣoparaktam mukham*, etc.

The other Sanskrit words for 'wave' cannot be used in this sense, and they differ from *taraṅga-* inasmuch as they denote a wave from point of view of its motion. Such is the case with the one word of Indo-European origin for 'wave', Skt. *ūrmi-*: AS. *wielm*, etc., and also with *kallola-*, *lahari-* which were shown to be of Dravidian origin (see above no. 3). The same is probably true of Skt. *vīci-*, °ī f. wave, which Kittel (IA i, p. 237) plausibly derives from Drav. (Kan.) *bīsu* to wave, swing, etc. This is better than his later suggestion (*Kan.-Eng. Dict.* p. xlii) which connects it with Ka. *bīgu* to swell, etc. The following is a list of the Drav. words connected with Ka. *bīsu*: Ta. *vīcu* to flap, as wings, to swing, as the arm, to wave, to swing and cast a net; to fan; to blow as the wind, *vīccu* swinging, oscillation; beat, flap of wings, *vīcīru* to wave to and fro, brandish; to swing the arms in walking; to fan, *vīcīri* a fan, Ma. *vīcuka* to fan; to blow, of the wind; to cast a net, *vīcci* a fan, *vīccu* throwing a net; a back-stroke, *vīyuka* to fan; to brandish, swing, wield; to flap; the wind to blow; to throw nets, *vīśuka* to fan; to blow; to throw a net, *vīśēri* a fan, *vīśari* id., Ka. *bīsu* to swing, whirl, wave; to fan; to throw a net, to blow, as the wind, Tu. *bījāta* waving, swinging, fanning, *bījuni* to swing, blow as the wind, *bīpu* casting, throwing; blowing of the wind; waving hands, *bīsuni* to fan, wave, swing, cast, Te. *visaru*, *visuru* to throw, wave, whirl, blow as the wind, *vīcu* to blow as the wind; to wave, *vīcōpu* a chowrie, *vīvana* a fan, a whisk; *vīvali* wind, Kui *vīnja* to blow, to fan. In the specialized meaning of 'fan, to fan' this Dravidian family of words has given to Sanskrit *vīj-*, *vyaj-* to fan, *vījana-*, *vyajana-* a fan. From the general sense 'swing, wave, oscillate', the meaning 'wave' of Skt. *vīci-* can reasonably be derived. In form it corresponds exactly with Ma. *vīcci*. There is a gradation of the intervocalic consonant in Dravidian which is reflected in Sanskrit with *vīci-* on the one hand and *vīj-* on the other.

27

Skt. *tarala-* mf(ā)n. moving to and fro, trembling, tremulous ; unsteady, vain, *taralayati* makes to tremble, *taralāyate* trembles.

~ Ka. *teraḷ* to move, shake, stir, tremble, quiver, Te. *teralu* to move, to toss about, be routed, *taralu* to stir, move, proceed ; with transposition of *r* and *l* : Ka. *taḷar* to move, tremble, totter ; moving, trembling, tottering, *taḷar-aḍi* a trembling step, *taḷar-naḍe* a trembling, tottering walk, Ta. *taḷar* to be relaxed, slack, *taḷarcci* slackness, debility, Ma. *taḷaruka* to relax, become slack.

Skt. *tarala-* m. the central gem of a necklace, is a different word from the above. It is to be referred to the following Dravidian group : Ta. *tiraḷ* to become round, globular ; (sb.) ball, globe, round mass, *tiraḷ-maṇi-vaṭam* a kind of necklace (Inscr.), *tiraḷai* a solid round object, Ma. *tiraḷ* a ball, Ka. *teraḷu* to ball itself, to become round, *teraḷe* a round lump.

28

Skt. *talina-* mf(ā)n. thin, fine ; slender, meagre ; small, little ; separate, having spaces ; clear.

~ Ka. *teḷ* thinness, fineness, delicateness, smallness, *tellaḡe* thin, delicate ; thinly ; thinness ; diluted state, *tellane*, *tellanna* id., *teḷupu* thinness ; delicateness, fineness ; diluted, watery state, Tu. *teḷpu* thinness ; thin, lean ; few, little, *tellena* thinnish.

Out of these Ka. *tellaḡe*, Tu. *tellena* correspond in form to Skt. *talina-*. In these words Ka. *-ane*, Te. *-ena* is an adjectival suffix which has developed in these languages, and in Telugu, out of what was originally the infinitive of the verb to say (*an-*, *en-*, *in-*) used adverbially. Compare (no. 22 above) Te. *cikkani* thick, inspissated, with Ta. *cikk-ena* firmly, tenaciously.

29

Skt. *tuvara-*, *tubara-* mfn. astringent, Pkt. *tuvara-* id.

~ Ta. *tuvar vb.* to be astringent ; *sb.* astringency, astringent substance, *tuvarppu* astringent taste, astringency, harshness,

Ma. *tuvaruka* to grow dry, Ka. *tuvara*, *tovara*, *togari*, *togaru* astringent, an astringent taste, Kui *torpa* to be astringent.

The following similar words have apparently nothing to do with the above group: Skt. *tubarī*, *tubarikā* f. *Cajanus Indicus* (Lex.) | Ta. *tuvarai* *Cajanus Indicus* (*Peruñk°*), Ma. *tuvara* (< *tuvar* on account of its taste, Gt.), Ka. *togari*, *tovari*, Tu. *togari*, *togarè* id. In this case also the Sanskrit word is to be regarded as derived from the Dravidian.

30

Skt. *dadru-*, *dadrū* f. a cutaneous eruption, kind of leprosy, *dardū*, *dardru-* f. id, *dadrūṇa-*, *dardruṇa-* leprous, Pa. *daddu* a kind of cutaneous eruption; for ModIA derivatives see *Nep. Dict.* s.v. *dād*.

~ Ka. *taddu*, *daddu*, *dadru* cutaneous and herpetic eruptions, herpes; a kind of leprosy; a ringworm, Tu. *taddu* an eruption or swelling, erysipelas, *daddu* ringworm, herpes, Te. *daddu*, *dadduru* a cutaneous disease, herpes, Kuvi (Fitzg.) *tadū* ringworm, Kui *dado*, *dadu* rough white patches on the skin that cause irritation and itching, dry itch.

The fluctuation between surd and sonant in the case of the initial consonant is a feature of Dravidian, and therefore an indication that the word is original in these languages. Santali *dād* ringworm is a loanword from Indo-Aryan.

31

Skt. *nagara-* n. town, city is borrowed into Dravidian as Ma. *nagaram*, Ta. *nakaram*, Ka. *nagara*, Te. *nagaramu*. In addition to these loanwords we find also the following: Ta. *nakar* house, abode, mansion; palace, temple, shrine, hall; town city, Ma. *nakar* a town, Te. *nagaru* a palace. Of these the Tamil word is common in the earliest literature, and for that reason, and because of the difference in meaning, cannot be regarded as a loanword from Sanskrit. On the other hand, in view of the practical identity of the forms, and because the Sanskrit word has no IE etymology, there would seem to be every reason for deriving the Sanskrit word from

the Dravidian. From a general meaning 'habitation' the specialized meanings of 'palace, etc.', on the one hand, and 'town' on the other easily develop. Compare Skt. *pura-* 'house, abode; fortress, castle; city, town'.

Initial *n-* is an unstable sound in Dravidian, and there is frequent alternation between words with and without *n-* in all the Dravidian languages: Ta. *nīr* water, *īr* damp, etc., etc. Consequently we can reasonably derive Skt. *agāra-*, *āgāra-* *n.* house, abode, from the same source. As frequently, there is no strict correspondence in vowel-length in the word as borrowed into Sanskrit.

Analysing these forms, it is to be observed that *-ar* is a common suffix in Dravidian, and we can therefore compare further Ta. *akam* in the sense of house (*akattān* householder, *Nālati*^o). The general meaning of Ta. *akam* is 'the inside', from which the meaning of 'abode' could develop (*akam* inside, at home, opposed to *puram* outside). For the meaning town compare also the Tamil compounds *aka-nilai* town, *akap-pā* a fortified wall.

32

Skt. *nīvāra-* *m.* wild rice, VS., etc., Pa. *nīvāra-* raw rice, paddy.

~ Ta. *navarai* a kind of paddy, *nakarai* id., Ma. *navira*, *naviri*, *nakara* a rice that ripens within two or three months, Tu. *navare* a kind of rice.

For the fluctuation between the vowels *a* and *i* in the first syllable, compare the examples given above (no. 25).

33

Skt. *pañ-*, *pañate* to negotiate, bargain; to stake, lay a wager, *pañā-* *m.* a bet or wager; a compact, stipulation, agreement, treaty; the thing staked or the sum played for.

~ Ta. *pañai* to tie; (*sb.*) tie, bond; pledge, security, surety, Ka. *pone* bond, bail; a bondsman, a surety, a bail, Tu. *puṇè* security, bail; with variation in the initial vowel: Ta. *pinai* (*vb.*) to tie, bind, fasten; (*sb.*) tie, bond; agreement;

bail, security, guarantee; pledge, Ma. *piṅekka* to tie, *piṅa* tying, yoke; being involved, bail, surety, Ka. *peṅe* to tie; being tied, Te. *pena* tie, bond.

34

Skt. *panda-* eunuch, weakling, *paṅdaka-*, *paṅdra-*, *paṅdraka-* id., Pa. *paṅdaka-* id.

~ Ta. *pen* woman, female, *peṅtu* woman, wife, *peṅtir* pl. women, *peṅtai* female of birds, *peṅṅtai* female of animals or birds; woman, girl, *peṅṅtaiyan* hermaphrodite, effeminate man, *peṅṅtu* female of birds and certain animals; hermaphrodite, *peṅṅti* hermaphrodite, *peṅṅtai* female of birds, hen, Ma. *pen* female, woman, girl, *peṅṅti* a girl, woman, *peṅṅnan* an effeminate man, *peṅṅa*, *peṅṅta* hen, *peṅṅṅta* the female of birds; the female of asses, camels, Ka. *pen* female, woman, *peṅṅda* id., *peṅṅdati* wife, *hēṅṅe*, *hēṅṅṅe* hen, Tu. *peṅṅna* female, feminine, *peṅṅṅṅu* a girl, female, maid, *peṅṅṅjavu*, *peṅṅṅjevu* a female in general; a woman, Te. *peṅṅṅti* the female of any animal or plant, *peṅṅṅṅili* marriage, *peṅṅṅṅlamu* wife, spouse, consort, *peṅṅṅṅta* hen, female of any bird, *peṅṅṅṅdi* eunuch, hermaphrodite, *peṅṅṅṅde* a beardless man, Malt, *peṅṅṅṅli* woman, *peṅṅṅṅlo* female, Kur. *peṅṅṅṅell* maidservant, Brah. *peṅṅṅṅṅṅti* female.

35

Skt. *parāga-* m. pollen of a flower; dust, Kāv., Pur., etc.

~ Ta. *piracam* pollen; honey, honeycomb; toddy; bee. Te. *pera* honeycomb, beehive, Tu. *perya* a large bee.

36

Skt. *picc-*, *piccayati* to squeeze, press flat, *piccata-* pressed flat, squeezed, *piccita* id., Suśr., *pich-*, *pichayati* to press flat, squeeze, *pichana-* pressing flat, squeezing, Car.

In Dravidian compare Kuvi (Fitzg.) *pīchali* to milk, wring, Tu. *pīsuni* to squeeze, press out, and the following forms in which an -r- appears: Malt. *perche* to be squashed as an overripe fruit, Tu. *purīncuni* to squeeze as a lemon, Brah. *prinching* to squeeze (cf. Bal. *prich-*, *pīrich-*). These words

have correlates in Uralian: Zyr. *piťskini* auspressen, pressen, Voty. *pyťskyny* drücken, auspressen, VogA. *pošťam* pressen, Sz. *pošťeti* drücken, Osty. *pəķərməm* id.; Hg. *facsar* obtorquere, premere, Fi. *pusertaa*, Voty. *pidzirtini* id. In most of the Uralian forms an *-r-* appears after the affricate, while in Dravidian an *-r-* appears before it, from which it would seem that a transposition has taken place in one or the other language group. Sanskrit *picc-* is presumably derived from **pirc-* by assimilation.

37

Skt. *picchā* f. gum; slimy saliva, *picchala-* mfn. slimy, smeary, *picchila-* id.

~ Ta. *picin* gum, exudation from certain trees; stickiness, viscousness, *picupicu* to be sticky, glutinous, viscous, *payin* gum, glue, *pacai* stickiness, glue, resin, Ma. *paya*, *paca*, *paśa* gum, resin, Tu. *paya* id., Te. *pisunu* gum, resin, *pisini* parsimonious.

With these Dravidian words Schrader (*ZII* iii, 93) compares the following Finno-ugrian words: Fi. *pihka* resina, gummi, pix; harz, Est. *pihk* id., Hg. *fösvény* avarus, parcus, tenax, Cher. *peškede* parcum, tenacem esse.

For the homonymous words *piccha-* tail, and *piccha-* calf of the leg, see *BSOAS*. xi, p. 347 and p. 348.

38

Skt. *puñkha-* m. the shaft or feathered part of an arrow (which comes in contact with the bowstring), MBh., etc.

~ Ta. *puruku* arrowhead, Ka. *piłuku*, *piłku* the lower part of an arrow which comes in contact with the bowstring and contains the feathers and shaft.

The Skt. word is based on a Drav. form with the liquid assimilated; such assimilations are found in a number of Skt. words derived from Dravidian (cf. *uñch-*, no. 7: Ta. *uriñcu*).

Skt. *puṭa-* m.n. fold, pocket; a cup or basket or vessel made of leaves; a casket, *puṭaka-* m. a vessel made of leaf, etc., Pa. *puṭa-* a container made of leaves, pocket, basket, Pkt. *puḍa-*, *puḍaa-*; Be. *purā* a straw vessel for storing grain, Or. Hi. *purā* a packet (especially of leaves to hold sweets), Nep. *Dict.* s.v. *purā*.

~ Ta. *puṭṭil* quiver, sheath, basket, flower-basket, Ma. *puṭṭil* basket; husk, pod, legume, Ka. *puṭṭi* a smaller or larger basket made of cane, bamboo, or palmyra leaves, *buṭṭi*, *buṭṭe* id., Tu. *puṭṭi* a small round basket, *puḍayi* a basket, *budde* a pod, legume, Te. *puṭi* a flower-basket, *puṭika*, *puṭṭika* a small basket, *boṭṭa* a large cylindrical basket for storing grain, Kui *puṭi* a basket.

With a variation in the radical vowel Skt. *piṭaka-* basket, is derived from the same source; cf. also Ta. *piṛā* a round wicker basket (*Perumpān*° 276, etc.). The same vowel-variation is found also in the homophone, Skt. *piṭaka-* blister (cf. *BSOAS.* xi, 354).

There is another word *puṭa-* n. in Sanskrit differing completely from the above in meaning and etymology. It means 'anthill', and is found only in the cpd. *pipīlakapuṭa-*, MBh. The Dravidian word from which it is derived appears in the various languages as follows: Ta. *purru* anthill, Ka. *puttu*, Te. *puṭṭa*, Kui *pusi*, Kuvi *puci*, Malt. *pute* id. Of these the Telugu form with *-ṭṭ-* (out of original affricate) most closely resembles the Sanskrit word. On the other hand, in another loanword from the same Dravidian source, namely Skt. *puṭṭikā* f. the white ant or termite, the Sanskrit word shows the same development of the internal consonant as Kanarese.

Skt. *puṭina-* m.n. a sandbank, a small island or bank in the middle of a river, an islet, a sandy beach, Pa. *puṭina-*, *puṭina-* n. a sandy bank or islet in the middle of a river.

~ Ta. *poril* park, grove, forest, pleasure-garden; earth,

world; country, district, *pūril* earth, Ma. *poril* watered ground; flower-garden; sandy shore; a piece of low ground, Ka. *puril* sand, sandy shore.

Ka. *puril* is traditionally regarded as a tadbhava from Skt. *pulina-*; it cannot, however, be separated from Ta. Ma. *poril*, which makes it clear that the relationship is the other way round, and Sanskrit the borrower.

These words are related to a further series of words in Dravidian meaning 'sand, dust, ashes, etc.': Ta. *pūri* powder, dust; sacred ashes, *pūr̥ti* dust, *puruti* dust, dried earth; pulverised or fine powder; dry earth, Ma. *pūri* dust, also earth put to the roots of trees; the pollen of flowers, *puruti* id., Tu. *poyye* sand, Tod. (Pope) *purzh* mud, Malt. *porsi* sweepings. These words have correlates in Uralian as follows: Hg. *por* dust, Osty. *pār* ashes, Voty. *pur̥z̥itini* to make dusty, Vog. *pors*, *pārš*, etc., kehricht | Sam.O. *phürä* sand, K. *ḡüre* sand, sandbank. In the South Dravidian -r- has developed out of -rs-: cf. Ta. *maru* axe = Go. *mars*, etc.

The form appearing in Ta. as *pūr̥ti* (a variant of *puruti*) has developed in Ke. and Tu. to *būdi* ashes, with assimilation of -r- and voicing of the initial, both frequent phenomena. This Ka. Tu. *būdi* has been further adapted into Skt. as *bhūti*-f. ashes, sacred ashes, where, on account of the employment of ashes for religious purposes, popular etymology easily identified the word with Skt. *bhūti*-f. welfare.

41

Skt. *pusta-*, *pustaka-* a book (Pa. *pothaka-* a book; cloth made of *makaci* fibre, Pkt. *pothaka-*; Hi., etc., *pothī*) was explained by R. Gauthiot (*MSL.* xix, 130) as a loanword from Iranian: Pahl. *pōst* a skin, ModPers. *pūst* id., from which the meaning 'a book written on leather', 'a book (in general)' could be derived. The weakness of this theory is that leather was not used for books in India, and in Iran, where it was so used, the word *pōst* never developed the meaning of book.¹

¹ Sogd. *pustk* is no doubt a lw. from Skt.

The materials used for writing on in India were mainly palm-leaf in the South, and birch-bark in the North, particularly in the North-West.

In Modern Persian *pōst*, *pūst*, besides meaning 'skin, hide' means also 'bark of a tree', and in this sense we can further compare Parachi *pūst* bark (of a tree), Yidgha *pisto*, Sanglechi *pəstāk* id., Wakhi *pīst* skin, hide; bark (*draxt-pīst*), Shughni *pōst* bark. In view of the fact that birch-bark was the usual material for books in N.W. India, it is clear that if Skt. *pustaka*- is borrowed from Iranian, it must be from the word used in this sense, and not in the sense of 'skin'.

There are, however, also some Dravidian words that need to be taken into consideration:—

Ta. *potti* garment of fibres, cloth; sheath, Ka. *potti* cloth, Te. *potti* cloth; bark; cf. Ta. *pottu* to cover, wrap, Ma. *pottuka* to cover, envelop; with shortening of intervocalic *-tt-*, Ta. *putai* to cover, cloth, etc., Ma. *puta* a cover, an outer garment, *putekka* to wrap oneself, Ka. *podake* a cover, covering, a wrapper; a thatch, Tu. *podepuni* to put on clothes, *podepu* wearing apparel, etc.

The fact that Pa. *potthaka*-, Pk. *pottha*-, *potthaa*- mean 'cloth' as well as 'book' tends to support the Dravidian etymology, since Drav. *potti* sheath; bark; cloth is connected with the verb *pottu* to cover, envelop, so that the development of the various specialized meanings easily comes about. The following words can also be grouped here: Skt. *pota*- m., *potikā* f. cloth, garment, Pkt. *potta*- a garment, *pottaa*- cotton cloth, *pottiyā* a piece of cloth, *pottī* a sari; Hi. *potiyā* a loin-cloth, etc.; Sgh. *potta* bark of a tree; husk of fruit; shell of testaceous animals.

In deciding between the two alternative etymologies, Iranian and Dravidian, it would seem best to derive Skt. *pustaka*- and the Middle and Modern IA words meaning 'book' directly from Iranian *pōst*- in the sense of 'bark', and to refer MI *pottha*- cloth and the other words to a Dravidian source. Further, the possibility is to be taken into account that the Iranian word itself is derived from Dravidian, since

it is without IE etymology, and there are other cases where a Dravidian etymology can be suggested for Iranian words.¹ In view of the western origin of the Dravidian languages and their connection with Uralian, such a state of affairs is to be expected. If so Drav. *pott-* would be assimilated out of earlier **pōst-*. As all the Dravidian languages show 'prakritic' tendencies of this kind, such a development is very probable.

Skt. *pusta-*, *pustaka-* also has another sense, namely that of 'plastering'. In this sense we may reasonably follow Gundert (*ZDMG.* xxiii, 528) and Kittel (*Kan.-Eng. Dict.* p. xl) in comparing the Dravidian words meaning 'to smear': Ta. *pūcu* to besmear, anoint, rub, daub, spread on, plaster; sb. daubing, smearing, Ma. *pūcuka* to smear, daub; to whitewash, plaster; (with *pon*) to gild, *pūccu* smearing; daub, coating, Ka. *pūsu* to smear, daub, plaster, etc., Tu. *pūjuni* to smear, rub, daub, apply, Te. *pūyu* id. As Kittel points out Skt. *pusta-* corresponds to a Dravidian participial form: Ka. *pūsita* that which is smeared.

42

Skt. *pūj-*, *pūjayati* to honour, worship, revere, respect; *pūjā* f. honour, worship, adoration.

~ Ta. *pōrru* to cherish, protect, nourish; to worship, treat with regard, entertain (a guest); to praise, applaud, Ma. *pōrruka* to adore; to preserve, bring up, protect.

Ta. Ma. *pōrru* [i.e. *pōttru*] represents an original **pōčcu*, the *-rr-* having developed out of an original affricate. Skt. *pūj-* represents a Drav. **pōj-* with a weaker grade of the intervocalic consonant. An exact phonological parallel is to be found in Kui *tōja* to show, as compared with Ta. Ma. *tōrru* id. For Skt. *ū*: Dr. *ō*, compare Skt. *kūṭa-* peak: Ta. *kōṭu*, etc.

43

Skt. *bilva* Aegle Marmelos, Pa. *beluva*, *beḷuva*, also *bella*, *billa* id., Pkt. *bella*, *billa*; see *Nep. Dict.* s.v. *bel*¹.

¹ Cf. nos. 45 and 49.

~ Ta. *viṭā* wood-apple, *viṭavu* id., *vellil* id., Ma. *viṭā*, Ka. *beḷaval*, *beḷavala*, *beḷōla*, *beḷala*, *bēla*, Te. *velāga* id.

The IA forms with *-e-* in the first syllable are not based on a Skt. vṛiddhied form *bailva-*, but represent Drav. forms with *-e-*. The alternation *e:i* is based on Drav. phonetic developments (*Drav. St. II, BSOAS. x* (1940) pp. 289-297).

44

Skt. *maru-* m. a wilderness, sandy waste, desert; a mountain, rock, MBh., etc., *marudhanvan-* m. desert, *maruprapāta-* m. a rocky precipice, a mountain crag, *marubhūmi-*, *marusthala-*, etc., desert, Pa. *maru* desert (always combined with °*kantāra-*), *marumba-* a kind of sand or gravel.

~ Ta. *murampu* rough, hard ground, rock, mound of gravel or stone, *murappu* roughness, Ma. *muram* roughness, ruggedness, *murakkallu* very strong ground, Ka. *moradu* a stony rough hillock, Tu. *mura* a stone quarry; laterite stone; stony, hard, strong, Te. *moramu* a pebble, gravel-stone, *morapa* stony, gravelly, *morasu* rough, rude.

45

Skt. *mastu-* sour cream; the watery part of curds, whey, TS., etc.; Mar. *maṭhā* milk coagulated with its butter in it and churned; the coagulum or thick residue of curds, Gu. *maṭho*, *maṭṭho*, Si. *maṭho*, Pj. Hi. *maṭhā*, Be. *māṭhā* | cf. Pers. *māst* sour, coagulated milk, *māsīdan* to coagulate (as milk), to congeal, Balochi *mastay* curds, *maday* to freeze, curdle, Pashto *matar* coagulated milk, Khotanese *māsta-* curdled, *amāstq n̄ye* unfermented curds.

~ Ta. *mucar* buttermilk, curds, (contracted) *mōr* buttermilk, curd diluted with water, Ma. *mōr* buttermilk, Ka. *mosar*, *mosaru*, *masaru* curds, Tu. *mosaru* id.; Ka. *majjige* buttermilk, whey, Te. *majjiga* id., Ta. *maccikai* (lw. < Te.), Tod. *mach* (Metz), *maj* (Rivers) buttermilk; Te. *mettu* curds mixed with water; Brah. *maringing* to curdle.

The various IA and Iranian forms show considerable irregularities, a fact which is often a sign that words have

been borrowed. In view of the striking similarity of the Dravidian words, it becomes highly likely that they have been borrowed from this source. The contracted form which appears in Ta. Ma. *mōr* has also been borrowed into Skt. in *morata*, *mōraṇa* Suśr. sour buttermilk.

46

Skt. *mruc-*, *mrocati*: *nimruc-* to go down, set, of the sun, *mluc-*, *mlocati* to go down, set, *mlup-*: *upamlupta-* hidden, concealed, *abhinimlupta-* = °*mrukta-*, °*mlukta-* upon whom while not doing any work or while sleeping the sun has set. | Cf. Av. *mraocant-* sich duckend.

~ Ta. *muṛuku* to be immersed, to sink, *muṛucu* to dive, dip, get into, *muṛuttu* to plunge, dip in, drown, *mūr* to submerge, engulf, *mūrku* to submerge, sink; to be hidden, concealed, Ma. *muṛuku* to sink under water, Ka. *muṛugu*, *munugu* to go or sink under, to be immersed, dive; set (of the sun), Tu. *murkuni* to sink, be immersed; the sun to set, *murgeḷu* ducking, diving, Te. *munūgu* to sink, plunge, dive, *munucu* to cause to sink, Go. *muṛungānā* to dive, sink, be drowned, Kui *munja* to be immersed, submerged, Kuvi (Fitzg.) *mrūkhali* to dip into, Malt. *mulge* to dip in, Kur. *mulkhnā* id.

47

Sanskrit has two words for 'tiger', *śārdūla-* and *vyāghra-*, and, as was to be expected, neither has an Indo-European etymology. Of these the first can be analysed as a Dravidian descriptive expression, meaning 'striped skin'. The first element appears in Dravidian as Ka. *cāra* a line, streak, Te. *cāra* a line, streak, stripe, *cārika* id. The second element is the common Dravidian word for skin: Ta. Ma. *tōl* skin, hide, leather, Te. *tōlu*, Ka. *togal*, *toval*, *tōl*, Tu. *tugalḷu*, Go. Klm. *tōl* id. The voicing of the initial consonant of the second part is automatic in such a compound; Skt. *ū* corresponding to Drav. *ō* has parallels in *kūta-* and *pūjā*. Such a descriptive name for the tiger arises very naturally, and as parallels we may quote Te. *cārala-mekamu* tiger (*mekamu* < *mṛga-*), and

the frequent descriptive names in early Tamil poetry : *variya-tala* ANāṅ° 58, *koṭu-vari* PNāṅ° 135.1, *vari-vayam* ib. 100.7, *kuya-vari* Tiṇaim° 25., etc. ●

The first element occurs in a number of other Skt. words : *śāra-sāra*- variegated in colours, motley, speckled, *śāraṅga-sāraṅga*- dappled, spotted ; m. a kind of spotted antelope, *śāripatta* °*phala* chess-board, *kṛṣṇasāra-kṛṣṇasāraṅga*- spotted black ; m. the spotted antelope, and probably in *śārikā*, *sārikā* a kind of bird, Maina. The fluctuation between ś- and s- is a common feature in loanwords.

MW in defining *kṛṣṇasāra*- as ' chiefly black ' suggests a wrong etymology. Skt. *sāra*- (variant of *śāra*-) speckled is the second part of this word, and not *sāra*- essence, etc., which is quite a different word. This latter may also be from Dravidian :—

Skt. *sāra*- m.n. the substance or essence or marrow or cream or heart or essential part of anything ; ingredient ; nectar ; cream, curds ; water ; pus ; manure ; Mar. *sār* essence, substance ; sap, pith, marrow, cream, Hi. *sār* pith, cream, Or. *sāra* marrow, manure, Sgh. *sara* essence, cream.

~ Ta. *cāru* juice, sap ; toddy ; water in which aromatic substances are infused ; pepper-water, *cēru* sap, juice ; toddy, honey, treacle ; kernel, as of a coconut ; pus, Ma. *cāru* sap as of a palm tree ; infusion, decoction ; broth or soup, Ka. *cāru* sap, juice ; broth, *sāru* a relish in a liquid state, well-seasoned sauce, broth, pepper-water, Tu. *sāru* sap ; soup, broth, *cāru* a kind of pepper-water, Te. *cēru* tamarind soup or broth.

The specialised meaning ' broth ', etc., which develops in some of the Dravidian languages is found also in Mar. *sār* a dilute mixture of tamarinds, mangosteins, and similar fruits squeezed in any pulse-decoction, or in water, with salt, asafoetida, etc.

The other word for tiger in Sanskrit, *vyāghra*- bears a strong resemblance to some Drav. words with the same meaning—Ta. *vēṅkai* tiger, Ma. *vēṅṅa*, Te. *vēṅi* id., which can hardly be accidental. The Skt. word has probably been

borrowed from Dravidian, and altered by popular etymology (as if from *vy-ā-ghrā-*). From Skt. the word has travelled westwards: Pers. *babr*, Arm. *bağr* (Uhlenbeck, *Wörterb.* s.v.). Whether there is any connection with the words for 'cat' (Ta. *veruku*, Ka. *berku*, Go. *warkār*, Malt. *berge*, Kur. *berkhā*: cf. E. H. Tuttle, *Dravidian Developments* p. 16) is a question that can be left for the time being.

48

Skt. *śūrpa-* n. a winnowing basket or fan, VS., etc.

~ Ta. *tūrru* to spread, strew; to winnow, Ma. *tūrrika* to scatter; to fan and winnow grain, Ka. *tūru* to drive off the chaff from grain by means of the wind, to winnow, *tūruvike* winnowing, Tu. *tūpu* winnowing, as grain, *tūpuni* to winnow, fan, Te. *tūrpidi* winnowing, *tūrpettu* to winnow, Kui *sīrpa* to shake out, sprinkle.

South Dravidian *t-* here represents an original sibilant, as frequently (see *BSOAS.* xi (1944) p. 339, Ta. *tuppu*, etc.; *ibid.* p. 349, Ta. *tūr*, etc.).

49

Skt. *sikatā* f. sand, VS., etc., has the following cognates in Iranian: OPers. *θikā* sand, gravel (Benveniste, *BSL* 30, 60), Sogd. *šykth* sand (Benveniste, *JRAS.* 1933, p. 43), Pashto *šaga* sand, Orm. *sag^e*, Par. *səγá*, Mj. *sūg^{ya}* Yd. *sigioh* id., Bal. *six* sand, barren land, Oss. *siĵit*, *sigit*, etc., earth, soil (Morgenstierne, *EVP.* p. 73, *IIFL.* ii, 245). The irregularity in the correspondence of the initial in Indo-Aryan and Iranian led Morgenstierne to regard the eastern Iranian words as borrowed from IA, while Benveniste was inclined to regard the Sanskrit word as borrowed from Iranian. The irregularity, however, is not confined to the correspondence between Indo-aryan and Iranian. Morgenstierne (*EVP.* 73) remarks that 'in the Dard languages we find a bewildering variety of forms which seem to be derived from, or in some way associated with *sikatā*', and quotes the following forms: E. Pash. *sā*, *seā*, Kashm. *sēkh*, Burush. (lw ?) 'soh' f., W. Pash.

siyēl, *sēl* m., Shina *sigal* f., Chiliss, Gowro *sigil*, Torw. *sigul* m., Baskarik *sügüt* f.; Khow. *šuyūr*, Kati *cü* m., Waig. *šā*, Ashk. *šōra*. As phonetic irregularity is often a sign that a word has been borrowed from some non-Aryan source, it is worth while comparing the following Dravidian words meaning 'sand':—

Ka. *usiku*, *usigu*, *usige*, *usuku*, *usuvu*, etc., sand, Te. *isuka*, *isumu* sand, *esalu* id., Go. (Maṛia) *usakā* sand. The Dravidian words here appear to have developed a prothetic vowel when compared with the Indo-Iranian forms. This is supported by a comparison with Finno-ugrian, since these words have a fairly obvious cognate in Fi. *hiekkā* sand (*h*- < *š*-). Such prothesis is not usual before sibilants in Dravidian, but it must be remembered that several sibilants (usually represented by *s*, *ś*, and *ṣ* in Finno-ugrian) have fallen together in Dravidian, and there may have been such a tendency before the comparatively rare *š*- which is here attested by Finno-ugrian. The fact that the initial vowel fluctuates between *u*- and *i*- in Kanarese and Telugu also points in this direction.

50

Skt. *hintāla*- m. The marshy date tree, Phoenix paludosa, Hariv., etc.

~ Ta. *intu* date-palm, *ĩñcu*, *ĩccam-panai* id. Ma. *ĩtta*, *ĩttal* Phoenix dactylifera, Ka. *ĩcal*, *ĩcil* the wild date tree, Phoenix silvestris, Tu. *ĩñcily*, *ĩcily* the wild date tree, Te. *ĩta* the wild date-tree, *ĩdu*, *ĩdādu* id., Kui *sīta* a small date.

An initial sibilant is often lost in South Dravidian, and it is clear from the Kui form that it has happened here. An intermediate stage was probably *h*-, such as we find now in Kuvi and the Maṛia dialects of Gondi, and this is reflected in Skt. *hintāla*-. An original *s*- is preserved in Pkt. *sindī* wild-date. An initial *k*- in Kur. *kĩndā* date-palm is difficult to account for, but it is worth while noticing that Geiger (*Singh. Gramm.* § 39.2) observes a similar variation in Singhalese between *kitul* n. of a palm tree, alternating with *hitul* = Pa. *hintāla*-.

The Skt. word appears to have been influenced in form by *tāla*- palmyra palm (Pkt. also *tāḍa*-), which is itself a loan-word from Dravidian: Ka. *tār* Palmyra tree, *Borassus flabelliformis*, Te. *tāḍu* id. (Kitt. no. 101).

Alphabetical list of Sanskrit words : agāra- 31, aṭṭa- aṭṭāla- 1, aḍḍaṇa- 1, adhara- 2, alasa- 3, alga- 4, ārabhaṭa- °i 5, āsphāl- 21, ukha- °ā 6, uñch- 7, kañka- 8, kara- 9, karaṭu- kareṭu- 8, karoṭa- °i 10, karkara- 18, karkarāṭuka- karkareṭu- 8, karkaśa- 18, kallola- 3, kavaka- 11, kavaca- 11, kavara- °i 12, kavala- 13, kuṭ- kuṭi- kuṭiḷa- 15, kuṭa- kuṭi- °i house 15, kuṭa- pot 15, kuṭṭ- 15, kulattha- 14, kūṭa- 15, kūrpara- 16, koṭa- 15, koṭi- 15, kaurukuca 17, krakaca- 18, khaṇḍ- khaṇḍa- 19, khara- kharu- 18, kharapaṭa- 20, goṇi 11, capeṭa- °ā 21, carpaṭa- 21, cipaṭa- cipiṭa- 21, cikkaṇa- 22, cikkhalla- 22, cīra- 23, cīvara- 23, cela- 23, cumb- 24, taṭa- 25, taḍāga- 25, taraṅga- 26, tarala- 27, talina- 28, tāla- 50, tubara- 29, tubarī °ikā 29, dadru- 30, nagara- 31, nīvāra- 32, paṇ- paṇa- 33, paṇḍa, etc., 34, parāga- 35, picc- piccaṭa- picḥ- 36, picchā picchala- °ila- 37, piṭaka- 39, puñkha- 38, puṭa- 39, puttikā 39, pulina- 40, pusta(ka-) 41, pūj- 42, pota- 41, potikā 41, bīlva- 43, bhūti- 40, maru- 44, mastu- 45, moraṭa- moraṇa- 45, mruc- mluc- 46, lahari- 3, vīci- 27, vīj- vyaj- 26, vyāghra- 47, śāra- sāra- 47, śāraṅga- sāraṅga- 47, śārdūla- 47, śīla- 7, śūrpa- 48, sāra- 47, sikatā 49, hintāla- 50.

BASIC ENGLISH AS AN INTERNATIONAL LANGUAGE

A LINGUISTIC ANALYSIS

By W. E. COLLINSON

THE best statement of the claims and qualities of Basic English is to be found in Dr. I. A. Richards' *Basic English and its Uses* (London, 1943). In Chapter IV of this work it is asserted that Basic aims (1) at providing a minimum secondary world language (a 'supra-national' language) and (2) at providing an improved introductory course for foreign learners leading into General English. Now it is possible to hold that Basic is more suitable for the one purpose than for the other. Here it is the first claim which is chiefly to be examined. Criticisms under that head do not necessarily invalidate the claim that Basic is a suitable approach to normal English. It must, however, be pointed out that Basic is but one of several carefully thought out approaches and that before its claim to be the best is accepted, certain data must be considered.

Dr. Richards' postulates for a supra-national language are sound enough. It must, as he says, come into use freely as a general convenience under the urge of the everyday motives of mankind. It must carry no implications of intellectual, technological or other domination. It must remain a purely auxiliary language, for no one should be encouraged or compelled to give up his native language. Finally, the learning and use of the common language should be symbolic of the learner's participation in the common human political effort.

It seems to the present author that these postulates are fulfilled by a neutral (i.e. non-ethnic), 'constructed' language better than by one already used by a nation or group of nations. Such a language may therefore serve as a final measuring rod in our scrutiny of the claims of Basic.

First it may be asked why Mr. Richards thinks that his postulates militate in favour of English. His chief arguments

are the ease with which English can be learnt by foreigners in general, the value of its literature, the numerical superiority of its users, its adoption by the largest number of foreign educational systems, its historic function as a bridge between peoples, and its adaptability to film, radio, and gramophone. He realizes that Spanish has a far better system of spelling, but holds that this is offset by the complexity of its verbal conjugation. It is of interest to note that Basic fights shy even of the English verb, and if that were the chief objection to Spanish the verb might—in theory at least—be ‘streamlined’ as in some of the creolized forms of Spanish like the Papiamentu of Curaçao (for Romance creole languages, cf. H. Schuchardt, *Zeitschr. für roman. Phil.* XIII). The argument from English literature depends for its cogency on the settlement of a prior problem, namely whether Basic is a good introduction to literary English. In regard to the numbers of users of English statistical guesses are misleading for there are many grades of proficiency and variations in pronunciation and usage in the various colonies and dependencies. The growing encouragement of English studies in foreign schools is to the point, but so far little instruction has been given with Basic. Moreover those English studies are intended to fit foreign students for communication with English speakers and writers, whereas a supra-national language must be usable by foreigners in communication with foreigners as well as with the English. Some data are already available for showing what modifications Basic would undergo in the mouths and thoughts of foreign speakers (see below). For that matter the style and idiom encountered in dissertations written by foreigners in what is meant to be normal literary English leave the impression that considerable modifications and distortions are inevitable, even when the norms of standard English are inculcated. Many who have attended conferences in which foreigners have presented papers in English, will have recollections of such misuses as *inconsequent* for *inconsistent*, *inconscient* for *unconscious*, *control* for *check* and of the overuse of *pedagogic*, etc.

As to the historic function of English its continuance depends upon the kind of role this country will assume after the war, but the foreigner may well object to having a mere extract of English imposed on him from without—in fact he may deeply resent being put off with a mere surrogate or minimum form, unless he is convinced of the value of Basic as a preparatory study for normal English. This has been shown by a resolution against Basic English adopted by the Council of Allied Educational bodies in exile in April, 1944. The argument from the widespread diffusion of English in film and radio is of more value, but once again one for the fostering of standard English rather than of Basic.

As the sounds and spelling of normal English are retained, a linguistic analysis of Basic English had better begin with its vocabulary, which is its central feature.

The Basic vocabulary is stated to consist of 850 'words' to which are added 50 'international words' and the names of numerals, months, titles, etc. The limit of 850 is determined by the practical consideration that that is the maximum number which can be printed conveniently on a half sheet of business note-paper. Among the basic words inflected forms like *gave, given or these, those* or *me, my* do not count as separate items. The following suffixes are admissible to form derived words (likewise not counted separately): *-er* (agent, with special mention of *actor, sailor*), *-ing* (action or participial adjection), *-ed* (past participle, but not past tense), *-ly* (adverbs). Opposites may be expressed by the prefix *un-*. How far these affixes are free to form new words will be discussed below.

The 850 basic 'words' comprise:—A Operators (100) including (1) a group of 18 verbs for irreducibly simple acts (*come, go, get, give, take, put, keep, let, make, be, seem, have, do, may, will* and the 'soi-disant' luxuries *say, see, send*); (2) directives, especially prepositions (the basic local meanings being shown by an excellent figure); (3) pronominals. B The bulk of the appellative terms including (1) 600 names of things and processes, and (2) 150 names of qualities with

some of their opposites. In the list the appellatives under B (i) are subdivided into 400 'general' and 200 picturable things, but it is not clear why *bread, butter, milk, rice, sugar, wine* come under 'general', but *cake, cheese, orange* and *potato* under the 'picturables'.

A closer inspection of the B portion of the vocabulary shows that there has been careful planning. It includes names of kinship (but not wife, husband, uncle, aunt, nephew, niece), parts of the body and of plants, collectivities (*army, nation, committee*), food and drink (with *tea* and *coffee*, but not *cocoa!*), articles of clothing, common objects (*basket, bucket, curtain, cushion, door, screw, table*, etc.), terms used for describing the world (*end, middle, top, edge, colour, size, form, change, weight, measure, cause, effect; land, sea, river, mountain*), and actions, states, etc. (in the substantival form, e.g. *amusement, answer, approval, argument, debt, decision, birth, death*, etc.). The quality-words include dimensions (*great/small, wide/narrow, long/short*), colours, temperatures, states (*boiling, hanging; cut, open, shut*), feelings (*angry, tired*), and logical status (*general, special, right, wrong, possible, probable, certain*).

Among the chief eliminations may be noted the following :— (1) the modal auxiliaries *can/could, shall/should, must/ought*, in their various functions, *can* being replaced by the various tenses and moods of *be able, shall* (future) by *will, shall* (mandatory or promissory) by *am to + infinitive, should (must, ought)* by *I am to, have to* in various tenses, and by a phrase like *it is necessary for me to . . .*; (2) many common verbs are replaced by phrases with the noun, e.g. *know* by *have knowledge, lose* by *have a loss, sit* by *take a seat, think* by *give thought, choose* by *make a selection*, etc. (see below). There is no place in the vocabulary for *understand, remember, forget, show, ask, buy, sell, carry, catch, obey, quarrel, find, want, promise* and multitudes of other common verbs; (3) no provision is made for the religious vocabulary (except in the special list for the Basic New Testament) so Basic lacks *God, heaven, pray*—a lack paralleled further by that of such

legal terms as *court, accuse, confess, condemn, jury* and words which a war-correspondent would need like *battle, soldier, enemy, shoot*.

When we turn to pronunciation and orthography we soon discover that Basic English retains many features of standard English which those who have taught English to foreigners know to be peculiarly difficult even for those of Scandinavian and Dutch nationality who pick up English most readily. As we shall see difficulties inherent in English are by no means confined to pronunciation and orthography.

The following English sounds offer stumbling blocks to many foreigners:—(a) the consonants [ð] and [p], e.g. *Basic the, this, these, that, those, then, there; thin, thing, think, north, south*, etc.; [w] and wh[w], e.g. *which, what, when, where, why; kw*, e.g. *quality, question, quiet*; intervocalic *r* in *very*; voiced finals like [g] in *bag, pig, leg, dog* or [d] in *good, food*, [z] in *disease, as, is* and [dʒ] in *bridge, edge*.

(b) Apart from the glide pronunciation in Southern English of the vowels in *day, see, no* and *do* there are peculiar difficulties with English [æ] in *act, bag, apple*; (ʌ) in *but, cut, cup, dust*; [ɔ] in *chalk, all*; [ə] in *earth, birth, work, word, first, dirty*; [jü] in *use, you, value*.

The stress accent in English often falls on a syllable different from that in most European languages so that international words are frequently mispronounced in English by foreigners, e.g. *balance, committee, current, damage, existence, history, humour, insurance, minute, record, society, structure, tendency*—all Basic words.

Even more serious than these difficulties of pronunciation is the chaotic character of English spelling of which the following (Basic) examples are typical:—(a) silent letters, e.g. *who, answer, business, doubt, knowledge*; (b) a multiplicity of sounds for the same letter(s), e.g. for the letter *a* in *baby, cat, war, bath, wash, about* and for the group *gh* in *cough, laugh, enough, daughter, light, weight, plough, though*; (c) a still more bewildering multiplicity of written symbols for the same sound (phoneme), e.g. for [i:] in *he, keep, heat, key*,

field, receipt, machine and for [I] in *fish, busy, building*; (d) doubling of letters in writing in accordance with etymology, but without any doubling or lengthening in speech, a feature difficult for Spaniards and Portuguese, e.g. *addition, apparatus, approval, attack, committee, current, suggestion*.

A few irregularities of accident are kept in Basic, e.g. the plural of the noun (*feet, teeth, men, women, knives, leaves, selves; sheep, fish; news* as a singular), comparison of adjectives (*better, best; worse, worst*), formation of adverbs (*well*; specified exceptions to the rule of adding *-ly* such as *short, like, small*), comparison of adverbs (*farther, farthest; less, least; more, most; better, best*). Above all Basic preserves a hard core of irregular forms in the eighteen verbs comprising the 'operators', e.g. *go/went/gone, come/came, take/took/taken, be/am/is/are/was/were/been*, etc. This could not be avoided if the conjugated verb—apart from these—was to be totally eliminated and replaced by a verbal phrase. However, this process of elimination involves a serious interference with the normal speech-habits of hundreds of millions of people inside and outside the English-speaking communities. A possible way of surmounting the difficulty would have been to revive the use of *did* to form the past tense of a verb in a positive statement, thus generalizing from its use with a negative *I did not do* and as an interrogative *did I do?*

In word-formation it is hazardous to set up rules if the products are to remain within the bounds of standard English. In the book *Basic English* the author informs us that 300 of the nouns given in a list under 'general names' and 'picturable things' form derivatives with *-er* to indicate the 'thing or person performing operation' and *-ing* for the operation itself. In as far as such a rule is applied without reference to current usage in Standard English it will result in *clother* for *clothier*, *coaler* for *collier*, *journeyer* for *traveller*, etc. If the foreigner affixes *-er* and forms *backer, joiner, turner, twister, waster* his products may not be taken in the literal sense in which he intends them. He will have to be warned not to add any affix to *cook, guide, or judge*. If a German,

he must be specifically told not to 'calque' English words on *Glaser*, *Musiker*, *Sänger* and not to take in a personal sense the words *cooker*, *duster* ('Staubtuch'), *folder* ('Prospekt'), *heater* ('Heizapparat', not 'Heizer'), *roller* (not *Roller* which is 'scooter'), *rubber* ('Gummi'), *washer* ('Dichtungsring'), etc. Similar sets of difficulties confront the foreigner attempting to form compounds in English where they are much more restricted by convention than in other Germanic languages. Mr. Ogden uses quite legitimately *mother-tongue* and *word-group* (cf. *Muttersprache*, *Wortgruppe*), but he and other Basic writers form *joining-sign* 'hyphen', *hand-part* 'handle', *grain-cutting* 'harvest', *grain-stems* 'stalks', *vine-garden*, etc. In *Basic English* p. 34 appear *newspaper*, *outhouse* and *sundown*. All three might be understood in a suitable context, but what foreigner would be likely to form such words spontaneously? Mr. Ogden in an article in *Picture Post* (November, 1943) goes still further, when he uses as though they were transparent compounds *note-paper*, *outlook* and *outline*. *Letter-paper* would be clearer to the foreigner, for *note-paper* suggests taking notes. *Outlook* might be confused by the German with *look-out* owing to *Ausguck*. *Outline* would be less comprehensible than the international *contour*. Similar criticisms may be raised against the Basic *headway*, *upright*, *offspring*, *undertake*, *overlook*, *somewhat*. In *Basic English* p. 34 the author admits that the meaning of the following compounds is not 'self-evident': *away*, *become*, *cupboard*, *however*, *inside*, *to-day*, *well-off*, *without*, but does not count them as extra items. How does the foreigner know that *away* is not a coalescence of the indefinite article with *way*? This is surely a case where the diachronistic point of view should be kept quite distinct from the synchronistic. To assume historical knowledge of a language not yet learnt is absurd.

The English device—much used by Basic writers—of transferring from one part of speech to another, e.g. nouns to verbal forms by the addition of *-ing* and *-ed*, has unsuspected dangers for the foreigner. It is doubtful whether he would

form spontaneously *pasted on, corded, stationed at*. Even a form like *pleasing* has no counterpart (*gefallend*) in German and has a meaning not co-terminous with Fr. *plaisant*.

The extent to which metaphorical or figurative uses of words should be admitted in an international auxiliary language constitutes a difficult problem which still awaits full investigation. What is needed is a survey of the international diffusion of metaphors belonging to specific domains, e.g. parts of body (*foot of the mountain, leg of the table, head waters, etc.*). Basic often adopts English extensions of function not shared by continental languages, e.g. *account* (1) 'bill', (2) 'narrative' (Fr. *compte/conte*; Ger. *Rechnung/Erzählung*), *note* (1) 'tone', (2) 'message', (3) 'annotation' (Ger. *Ton/Brief/Notiz*), *order* (1) 'command', (2) 'arrangement' (Ger. *Befehl/Ordnung*), etc. Still more startling is the use of *watch* for look at/timepiece and *ring* for both what is worn on the finger and for sounding a bell, *watch* and *ring* each being counted as a single word.

On pp. 72 f. of *Basic English* a list is given of 300 words said to have a prima facie claim to internationality and hence to inclusion as additional items. The words under A comprise *absinth, academy, academic, accumulator, adieu, alphabet, alpha, aluminium, ampère, ammonia, apostrophe, aristocracy, asbestos, atlas, atmosphere, atom*—in the main specific terms which could not be replaced by any periphrases. However, there are large numbers of non-Basic international words common not only to English and the Romanic languages, but also to German and Russian, e.g. *absolute, address, advocate, agent, appetite, arrest, author, autonomy*, and it is not easy to discern any principle by which they should be excluded. This is quite apart from those undisclosed assets of the international classical vocabulary that we find in *oculist (ocular), manual, dentist, mordant, audience, library, etc.*

On the other hand Basic retains the many functions of the peculiarly English 'passe-partout' word *get*. Thus in the article in *Picture Post* (November, 1943) Mr. Ogden uses *get* as follows: (1) 'obtain' in *get pleasure from*; (2) 'cause to be' in *get his essay printed*; (3) 'become' in *get ready, get*

tired; (4) 'proceed, move' in *get a jump in front of*. The matter is further complicated by the existence of *become* in Basic, for Mr. Ogden uses *he became Master of Trinity* and by the use of *go* and *turn* in the sense of 'become' as well as by Mr. Ogden's phrase *it came to be used*.

The virtual elimination of the simple verb in favour of the verb-noun phrase makes heavy demands on the ingenuity of the English user and still heavier on the memorizing powers of the foreigner. It is the lack of the verb—the dynamic centre of the sentence in most languages—which two of the chief critics of Basic, Sir A. Quiller-Couch in *The Times Lit. Suppt.*, 30th September, 1944, and Mr. G. M. Young in *Soc. Pure English Tract* no. 62 have deplored. They pillory the intolerable clumsiness of *I have knowledge that you have love for me* compared with *I know that you love me*. Then we may look at the matter more from the standpoint of the foreign learner. There are two large classes of phrases he would have to assimilate. The first consists of one of the admitted operators + adverbial particle, e.g. *put in, go out, take down*. In their literal application these offer no difficulty. English shares this phrase-type with German (separable verbs), Dutch, Norse, Finnish, etc., and the Romanic languages are not altogether devoid of such constructions. They can economize the learner's time in so far as they can replace in clear contexts and situations a whole array of specific verbs, e.g. *put in* for *insert, sow, implant, introduce, inject*, etc. The difficulty arises when they are idiomatic, i.e. not susceptible of direct analysis. A good example is afforded by *put up*. Probably *put up a person for a society* might just pass muster in so far as German says *ich stelle den Kandidaten auf*, but who could without some previous knowledge of English understand *put up someone in one's house* or *put up with him*? Yet the last occurs in a definition s.v. *tolerate* in the General Basic English Dictionary, stated on the title-page to be 'under the direction of G. K. Ogden'. The second type of phrases is characterized by verb + noun-object (or preposition and noun). It is true that spoken English in particular

abounds in such phrases. That some are rather subtly nuanced will be evident from a careful scrutiny by an Englishman of the following sets: *have a talk/have words*; *have a look/take a look*; *have a game/make a game*; *have a good tea/make a good tea/take tea/make tea*; *put a question, put a stop to*; *give birth, give pain*; *give trouble/make trouble/take trouble*, etc. Basic writers are forced to make a lavish use of this device. Thus the translation of the New Testament has *give teaching* for *teach*, *give hearing* for *hear*, *go in fear of* for *fear*. The use of such phrases is not so plainsailing for the foreigner as it looks to the Englishman. Thus when English says *have a fall* or *a game*, French says *faire une chute*, *faire une partie*, and when the Englishman *gives pain*, the Frenchman uses *faire mal*. Basic writers are prone to use that characteristic Anglicism *give a paper* whereas French says *faire une conférence* and German *einen Vortrag halten*. One can imagine the perplexity of the Chinese or Japanese when they find that they can *put a question*, but not *give* or *make it* (in spite of French), and still more when they find that after laboriously learning *put a question*, they cannot *put an answer*, but *make it*. It is not too much to say that the arbitrary nature of the linguistic conventions in an ethnic language unfit the latter for use as an international auxiliary language.

In Syntax the author of Basic has not found it possible to discard constructional patterns of Standard English which differ markedly from prevalent continental norms. Experience of teaching foreigners shows that the following English constructions are not easily assimilated:—

(1) The use of the articles, e.g. its omission with abstracts like *honesty* or *virtue*, and the use of a possessive in phrases like *wash my hands* where French and German favour dative of pronoun and definite article before the part of the body. On the whole problem, cf. P. Christopherson, *The Articles—a Study of their Theory and Use in English* (Copenhagen 1939) and his bibliography.

(2) The distinction between the ‘terminate’ and the ‘progressive’ aspects of the verb, e.g. *I go/am going, do you*

go/are you going, etc., as in *do you go to school (now, to-day, every day, of a Saturday)?/are you going to school (now, to-day, every day, this week, next Saturday)?* Cf. Ph. Aronstein, 'Die periphrastische Form im Englischen' (*Anglia* xlii, pp. 1-84) and Jacob van der Laan, *An Enquiry upon a Psychological Basis into the Periphrastic Forms in Late Modern English* (Amsterdam thesis 1922). Still subtler is the nuance of difference between *will you go to school to-day?/will you be going to school to-day?* Cf. H. Koziol, *Engl. Studien* lxxi, p. 385.

(3) The perfect tense the functions of which in English contrast sharply with those in French and German in spite of some overlaps. English says *I have been here a week* when French prefers *je suis ici depuis une semaine* and German *ich bin seit acht Tagen hier*.

(4) The use of the *-ing* form sometimes in competition with the infinitive preceded by *to*, e.g. *like to go/like going*. Many European languages use an infinitive with preposition where English uses *-ing*, e.g. *instead of going/anstatt zu gehen*, etc. On the other hand when the subject of *-ing* is not that of the finite verb, e.g. *instead of his going (I went myself)*, many European languages would render the *-ing* phrase by a *that*-clause, e.g. *anstatt dasz*.

(5) Basic writers make frequent use of the 'retained object' (cf. E. Krusinga in *Engl. Studies* ix, 38), e.g. *only these have been made use of* and *these words have been given no more space*. Equally difficult for many foreigners is the post-positing particle in *this has been gone into very fully* and the somewhat unusual English locution in *Basic words which are now come across only in the works of early writers*.

(6) The peculiarly English construction with *for* + régime + infinitive, e.g. *for him to go would be wrong* (often rendered by a conditional sentence in other languages). An actual example from Basic is *making it possible for a somewhat wide range of ideas to be covered*.

(7) Many foreigners will be taken aback by the contact-clause (Jespersen's term), i.e. parataxis with omission of

that in indirect statement and with the omission of the relative pronoun when object of a verb, e.g. *the man I saw*. The first is paralleled in most of the Germanic languages, but the second only in Scandinavian languages, which even use the same pattern as English in *the man I came with* or *the man I gave it to*.

(8) English word-order follows conventions notably different from most of the other Germanic languages and in some cases even from French. On the other hand it has not the freedom of Russian, cf. S. C. Boyanus and N. B. Jopson, *Spoken Russian* p. 2, § 15. It is on the whole uncontinental to say *I always do it, he never goes there*, cf. Fr. *il le fait toujours*, Ger. *er tut es immer*, etc.

Such syntactical features as these show that not only Basic, but even normal English is considerably handicapped as an international language in so far as English represents an 'aberrant' type. This aberrancy of English is mentioned in a posthumous article on 'Grammatical Categories' by Benjamin Lee Whorf in *Language* xxi (1945), p. 1, when he says, 'English, which hardly less than some American Indian languages is off the pattern of general Indo-European.'

There are not only syntactical conventions, but also stylistic ones. Much that is written in Basic shows a mixture of incongruous styles. Even in the New Testament a colloquial phrase like *he got into a ship* occurs in close proximity to literary phrases like *give teaching* and *go in fear*. To prevent confusion between *piece* and *peace* the word *bit* is used and often intrudes into passages where it jars. Still worse are the phrases scattered about by Mr. Ogden like *do the trick* and *put ideas across*. The highly international *autumn* is omitted as *fall* is used in the American way and even the ubiquitous *film* and *cinema* are replaced by *motion-picture*. Two connected specimens of Basic English will suffice to illustrate the stylistic effects of a highly restricted vocabulary in the absence of marked incongruity:—

(a) A meeting took place at which the public took a different

point of view from the controlling body on the accounts in question.

(b) What story the other man gave is not on record, but at any rate he went free, and my friend was sent to prison. It is true he was the worse for drink, but it was to his credit that he had no designs on her money.

A translation of either passage into French and German would reveal a remarkably high percentage of peculiarly English idioms, e.g. *take place, on record, at any rate, go free, worse for drink*, etc.

A few specimens of Basic written by foreigners will show that the fears expressed in the introduction to this analysis are not wholly unfounded. The following occur in a single number of a journal for the instruction of Argentine students, *Basic English-Ingles Basico. Revista mensual ilustrada* (Año I, núm. 3, Jan. 1944): (p. 3) From this historic building of the old Corporation of the town of Buenos Aires, paternal home of the greatest past decisions, I do a talk for the Argentine nation, in reason of being to-day the America's day. As an exception I come to put an end to the silence of this house many times great . . . (Translation of a speech by General Farrell on 14th April, 1943).

(p. 4) It was in 1812, when the Argentine Government gave orders to General Belgrano for make attempts to keep from attacks the edges of Paraná River . . . (article *The Argentine Flag*).

(p. 21) A meeting takes place in the high chief military's house and the helper captain gives orders to the young military man who is the watcher at the door: 'Over all things do not let any person come in whithout (*sic*) giving you the stick first, etc.' (from a series of jokes under the heading *Give a smile, please!*).

(p. 22) The new female servant gives a look at the dependent with an (*sic*) Greta Garbo's air, and says: 'Good morning, young man! Y have a feeling of regret at troubling you.' 'No, it is not trouble to me, young woman. What is your need? etc.' (*ibid.*).

These are a few samples from a large number of solecisms. Their significance lies in the fact that each has obviously been written by a foreigner who has made a pretty thorough study of Basic and composed in it spontaneously, away from the supervision of an English corrector. The specimens quoted may thus be taken as pure cultures of foreign Basic.

Having analysed some of the characteristics of Basic English from the point of view of its fitness to become the auxiliary international language of the world, we may profitably ask ourselves what advantages—if any—a constructed neutral language such as Esperanto, Ido, Occidental, Novial, or Mondial has to offer the users in comparison with Basic or indeed Standard English. Among the chief advantages the following are worth close consideration :—

(1) A system of phonology readily mastered by the vast majority of non-English speakers, preferably with pure vowels near the standard phonetic positions (*a, e, i, o, u*) without significant distinction of quality between 'close' and 'open' (one phoneme only for *o*, one for *e*) and without front-rounded vowels or the English low-front [æ] or non-rounded [ʌ] and [ə]. There need be no [p] or [ð] and no heavy consonantal clusters. Stress could be brought under a simple rule consistently applied, e.g. like the initial stress in Finnish, Estonian, Hungarian, Latvian, Czech and penultimate in Welsh and Polish.

(2) A rationalized system of orthography in which each letter or letter-group is used regularly and consistently to designate each phoneme. A high degree of rationalization has already been attained in Finnish, Norwegian, Italian, Spanish and German in sharp contrast with English and French.

(3) A system of inflexion with the bare minimum of inflexions and one even simpler than English in having one model conjugation for all verbs.

(4) A system of word-building by affix and composition (or grouping) of such a kind that the meaning of the derivative or composite word is the resultant of a combination of the

meanings of the separate components whether bound or free. Some languages make considerable use of unhampered suffixation, e.g. Finnish which by means of a collective *-sto* forms *laivasto* 'fleet' (*laiva* 'ship'), *sanasto* 'glossary' (*sana* 'word'), *hermosto* 'nervous system', etc. It is easy to imagine a place-suffix in an international language could enable a speaker to deal with a series like English *playing-field*, *golf-links*, *tennis-court*, *cricket-ground*, *eating-house*, *café*, etc., and a container-suffix with a series like *salt-cellar*, *pepper-pot*, *sugar-basin*, *soup-tureen*, *salad-bowl*, etc.

(5) Syntactical constructions could be made to conform to common continental usage rather than the aberrant procedure of English, Celtic, and the Northern languages.

(6) The development of a style or of styles in an international language would depend upon the experiences of its users and upon the adoption of the language by competent craftsmen, but it could attain a large measure of uniformity and refrain from jarring the sensitive listener or reader.

It does not lie within the scope of this linguistic analysis of Basic to pronounce judgment on its claims to be a good means of approach to the full standard language. Where Basic texts have been introduced into English schools for the instruction of English pupils, it is for the teachers to say to what extent Basic helps or hinders progress in speaking and writing and in stylistic appreciation. Where Basic has been used in foreign countries in support of English teaching, there is some evidence that it has not proved satisfactory (cf. letter to *The Listener*, 2nd December, 1943, from Mr. J. C. Powell-Price—late Director of Public Instruction United Provinces, India—stating that the experimental courses in Basic given at the Government Training College at Allahabad had been discontinued as 'results have not borne out the claims made for Basic English'). In any case—as a preparation for standard English—Basic would require to be compared carefully with other projects devised with this aim, e.g. Mr. Harold Palmer's *Thousand Word English* (London 1937) with adaptations of Jules Verne, etc., and Dr. Michael West's

New Method English Dictionary (London 1935) in which Mr. J. G. Endicott collaborated. Mr. Palmer, as adviser to the Japanese authorities in Tokyo, had exceptional opportunities of gauging the difficulties inherent in English. His aim is to build up a reading vocabulary for the early stages so that interesting narratives can be presented to the pupil in simple, but normal English. Dr. West set forth his method of selecting a core of essential English in Bulletin IV of the Department of Educational Research in the Ontario College of Education, University of Ontario. His preoccupation with the subject of vocabulary restriction was due to his experience as an inspector of schools in India. The *New Method Dictionary* contains 24,000 items (18,000 words, 6,000 idioms) which are defined by a definition-vocabulary of 1,490 words. A couple of definitions will show what can be achieved within that compass :—

insulin a medicine obtained from certain parts of sheep which helps the body to use the sugar which is eaten and prevents those who have too much sugar in the blood from dying.

fortitude that courage and self-control which makes one able to suffer pain without complaining and to meet danger calmly.

For a concise but illuminating statement of principles reference may be made to Dr. West's article 'Vocabulary Selection' in the *Year Book of Education* 1940, pp. 277-293. It is to be hoped that no further attempts will be made to promote Basic in our own or in foreign schools until the issues raised in that article are settled.

SOGDIAN COMPOUNDS¹

By ILYA GERSHEVITCH

Conspectus :

The first part of compounds (pp. 137-142).

Compound vowel *y* (pp. 138 sq.).

Compound vowel ' (pp. 139-142).

The ending of compounds (pp. 142-146).

No suffix (pp. 142-144).

Suffix *-aka-* (pp. 144 sq.).

Other suffix (pp. 145 sq.).

Main types of compounds in Sogdian (pp. 147 sqq.).

THE FIRST PART OF COMPOUNDS

No compound vowel is found as a rule in Sogdian, the first part of compounds consisting of the pure stem without endings.

Compare, with heavy stems, the compound *saṃdhi* in Man. $\delta\beta'mbn < Av. \textit{damānō} . \textit{paθnī-}$ (§ 449), S. *knδβr* "town-gate" < *kanθ-δvar-* (§ 455), Man. *'yšktyh* "harem" < *inč-kate* (§ 259), or the single spelling of originally double consonants in Man. *nymyδ* "south" < *nēm-mēθ*, Chr. *γnd'qry* "evil-doer" < *γandāk-kare* (§ 81, 3), B. *'rkrwn'y* "of action, *saṃskṛta*", cf. *ST ii*, s.v., < *ark* "work" + *krwn* "acting" (on which see Henning, *Sogdica*, p. 37 on 16); with light stems, the loss of *t* in Chr. *tryz'y* "oppressed" < Man. *tryt-z'y* (§ 454), *qsqnty* "destroyed" < S. *kt-sknt'k* (§ 462), *dsprtr* "towel" < *δast-partar* (§ 481), the assimilation in B. *βrzw'n'y* "long-lived" < *və'z-* (< *brz-*) + *žwāne* (§ 458), the spelling in two words of B. *swβt γwš* "having pierced ears" *SCE* 89.

Attested *-aka-* stems in the first part of compounds—with the suffix *-e* not always expressed in writing—are: Man. *βryyβrynyyt* "fruit-bearing", *Sogd.*, p. 34 on 24; the *karmadhāraya* S. *'wswytp'zn* "pure-heart", *VJ* 82.100.443. 43c,

¹ The references by paragraphs are to my *Grammar of Manichean Sogdian*, which will be published by the Philological Society.

'ws'γtp'zn SCE 6.62, 'ws'γt'p'zn T iii S 313, 12, 'wswytk (1176) p'zn VJ, = *ōsuyde-pāzn*; B. *δrzm'βr'k* "angry" VJ 225. SCE 287, < B. *δrzm'y*, *δrzm'k* "anger"¹; Chr. *nm'ny qrgy'* B 49, 9.11, *nm'nrgy'* i 57, 19 "repentance", cf. Chr. *nm'nyqyn*: Man. *nm'nkyn* "penitent", v. *BBB* p. 92 on b 25; Man. *nwy m'x* M 1, 84, S. *nwy prn*, *nwy y'n*, *nwy β'mh*, proper names with "new",² *Sogd.*, pp. 6. 7, 15; Man. *nymyxšp'p'šcyk* "relating to the midnight fasting", *BBB.*, p. 9. *Sogd.*, p. 26³; Man. *z'tyβrc* "womb", S. *z't'kβrctyh*, Plur., v. *BBB.*, p. 73.

The *-ākā-* stems Man. *γrd'* T ii D 62, 7, B. *γrd'kh* SCE 98. 125, "neck," and *wr'* "profit", appear without the suffix in the compounds Man. *γrd mrγwndyy* "Adam's apple" *Sogd.*, 56, 29, and Chr. *wrq'ryt*, Plur., "beneficial," ii 6, 42, while *pc'w'* "quarrel", and *jn'*⁴ "knowledge", have their suffix preserved in Man. *pc'w'kryy*, *pc'w'ywxtyy*, *BBB.*, *jn'ptnym*, v. Henning, *BSOS.*, xi 481, n. 6. . . . Cf. the treatment of these stems before other suffixes, §§ 1017. 1062.

The compound vowel *y* stands for *i/e* in Man. *βyyjyβr'n*, B. *'βyzyβr'n* and *'βyzβr'n*, cf. § 1133, "feeling misery, unhappy" < *v(i)ž-varān*.

It certainly stands for *ē* in Man. *ktyβryk* "temporal" = Parth. *kdybr*, NPers. *kadēvar*, v. Henning, *BSOS.*, ix, 84, cf. Horn, *Gdr. Ir. Phil.*, i 2, 100 sq.

¹ B. *δrzm-*, also occurring as *'δrzm-* in *Dhu* 190. 191. 198, may be an inverted spelling of **šžme*, which might stand for *šme* < Av. **aēšma-ka-*. Cf. the B. spellings *cškw-*, (*'*)*cšty-*, *γwycšt-*, for *šku-*, *šti-*, *χwēšt-*, § 286, fn., and the development *ažyan* > B. *'šcy'n-* > Man. *'yjn*, § 263 fn. 2. For the loss of initial *ai-*, cf. the reduction in *ytkw-* < **haituka-*, § 126, and Parth. *'šmg* = *ašmag*, etc.

² Man. *nwy(h)*, S. *nw'y*, attested in the Nom., the Acc., and the Loc. (*nwy wštm'xyy c[yndr]*, restored by Henning, "in the new Paradise" M 591, 11), B. *nw'kw*, v. *BBB.*, p. 61 on 516. The Ablative Man. *cn βγnw'* "New-moon" T ii D 140, 5, is not an isolated case with *-aka-* stems, v. § 1255.

³ *nymyxšp-* "midnight" against *nymyδ* "midday" < *nym-myδ*, *nym nym* "half-and-half" (?) T ii 63 b iii 3 (no context), cf. also Pers. *nīmšab*; but the substantive is attested as an *-aka-* stem, S. *nymy* T i a (6) R 10, Nom., Man. *nymy* T ii E R 19. V 1, Acc.

⁴ Note that *zn'kh*, VJ 1106. 1261, does not mean "chin, jaw", but is the word for "body" on which see Henning, *BSOS.*, xi 484, n. 3. . . .

y is probably a case ending (Gen.-Dat.) in Man. *šnyfrn* "Fortune of the Religion" *M* 286 i 9, *qwcyzprty* "purity of mouth" (the fourth commandment), and B. *čšmy wyny* Nom., *VJ* 364, meaning "obvious, lit. visible to the eye" according to Henning who compares Pahl. *čšmdyt*, Arm. *čšmarit* (Hübschmann, *Armenische Grammatik*, p. 513), Baluci *čam-dīd* (Dames, *Popular Poetry*, ii, p. 193), MPers. *čšmg'h* (Henning, *Ein Manichäischer Kosmogonischer Hymnus*, p. 223, fn. 4) and Gāthic *čašmāng θwisrā* (*Yasna* 31, 13 *tā* . . . *č.θ.* . . . *aibī* . . . *vaēnahī vīspā* "all that . . . you see clearly").

To any of the three preceding categories may belong the proper names in the *Mahrnāmag* *βγyryj* "God-wish" 79, *βγyfrn* "God-luck", *βγybyrt* "Θεοδέκτης, Received from God" 87, *wyšym'x* 57, *wyšy* (87) *frn*, with *wyš-* "joy, joyful" (?).

Otherwise *y* occurring between two stems forming a compound is either the *-aka-* suffix, cf. pp. 137 sq. above, or the trace of OIr. *-i-* stems as in Anc. Lett. *'rtyrxw, š'tyrxw*, v. § 236, or it belongs to compounds borrowed from other Iranian languages, as in Chr. *byst'n* "monastery", S. *βγyst'n* "paradise", cf. § 122, Man. *m'nyst'n* "monastery".

A compound vowel ' has been noticed:—

(a) In Man. *mzt'yzn* < **mazdayazna-*, Henning, *JRAS.*, 1942, 240, fn. 3, erudite form.

(b) In B. *'wy pwt' kt'ky tyst* "he enters the Buddha-house" *SCE* 177, modelled on Skr. compounds with *buddha-*.

(c) Sporadically as a euphonic vowel in B. *kβt' pršt* "split-lipped, hare-lipped" *SCE* 86, Man. *šwk' čšmyy* (*šūkačšme*) "impudent" § 285, fn. 1, B. *c'rd'p'dw* "quadruped" § 440; cf. also the numeral compounds with *'βt'-* and B. *'št'-*, § 1316. The compounds where ' is prothetic to the second part of the compound are treated below, but some of them may belong here.

An ' between two Sogdian stems forming a compound is due to other reasons in the following cases:—

(a) ' is the Fem. ending of an adjective in Man. *rwzšn'γrdmn*

“paradise”, Fem., and treated as such in Man. *šyry* 'kty'y *BBB.*, 627, Oblique of Man. *šyr'kty* “good deed”, on which see below, p. 141, β. The Fem. ending of the light-stem noun *xšp-* is preserved in Man. *nymyxšp'p'šcyk*, above, p. 138, so as not to obscure the meaning of the compound.

(b) ' is possibly the Ablative ending in B. *δβz'mwrt'y* “starved, lit. hunger-dead” *VJ* 317, 'tδβz'mwrtk *Vim* 133, Plur. written in two words *δβz' mwrt'yt* *VJ* 1093, cf. B. *cnn δβz' . . . myr-* “to die of hunger” *VJ* 814. B. 'δβz' *Vim* 134, 'δβzh *P* 2, 166, Chr. *dbz' B* 49, 31, are Ablatives, Chr. *dbzy B* 49, 28 probably Nominative (cf. § 1051 fn.).

(c) ' is the ending of an OIr. *-ā(h)-* stem in Man. *xwrmz'tβγ*, § 499, cf. § 395 fn., and the spelling in two lines *xwrmz[t]'/βγγy* § 73 fn.

(d) ' is an adverbial ending in Chr. *ny'zng* *ST ii* “andersartig”, cf. Av. *anya*, in the compounds with *pš'* < Av. *pasča*, § 1143, in Chr. 'zd'qry' “announcement” *ST ii* < OIr. *azdā*, and in Man. *kβn'* (13) *kβnw* “little by little” *M* 134 ii R.

(e) *ā* resulting from the Genitive ending *-ahe* is preserved, as in final position with light stems (§ 404), in Man. 'rt'wxwšt, Beruni ارداخوشت, name of the third day, < *artahe wahištahe*, against Man. 'rt'xwšt § 392.

(f) The *a* of Av. *ahu-/a(ṛ)hvā-* is preserved in Man. (')βj'xw- (*vžaxu-*) “unhappy”, § 391, against the forms with metathesis *šātux* and *wətux-* (*ib.*, with fn. 2).

(g) A prothetic aleph of the second part of the compound is preserved

(a) in Man. *mwrt'jw'ndy* “resurrection”, Chr. *mwrt' žwnty*, v. Henning, *Sogd.*, p. 42 on 27, < *mwrt-* “dead” + Man. *jwndty* *Sogd.*, l.c., S. 'zw'nty *VJ* 1110. *T ii T* 13, *zw'nty* *ST i* 87, 21, “alive”; Man. *wysp'sprymy* “all covered with flowers” *M* 178 i R 29, < *wysp-* + Man. *sprymy*, B. 'sp(')rym'y, cf. *BBB.*, p. 72 on 573; B. 'krt'sp's “obliging” *Dhy* 7, < 'krt- “accomplished” + Man. B.

'*sp's* BSOS., viii, 585 fn. 2. SCE 192. VJ 893, Chr. B. *sp's* i 35, 20. 39, 2. SCE 187, "service" ^{1, 2};

(β) in compounds with 'kt- < *krt-* (§§ 148, 171): the *karmadhārayas* Man. *šyr'kty'*, *šyrkty'*, Chr. *šyr'qty'* "good action", < *šyr* + '*kty'*', and B. *'βyz'krtyh* "sinful action" SCE 419, 472, 475; the inverted *bahuvrīhi* Man. *šyr'qtyy*, Plur. *šyrktyt* M 129 R 2, Chr. *šyr'qt'* Voc., *šyrqty*, "good, pious," cf. below, p. 147; the Chr. verbal nouns with **krti-* (§ 1002) *prxšy'qc* "lamentation", *y'b'qcy*, oblique, "erring, roving," *pcyp'qc* "confusion (?)" (< *pt-*, or *pc-*, + *syp-*, cf. S. '*psypw w'β-* "to preach wrong, lead astray", Man. *psypw'βky'* "slandering", Henning, JRAS., 1944, 140 fn. 3).

(h) ' represents an originally non-final *ā* of the first part of the compound in Man. *qš'wrzyy*, adj., "tilling" (cf. Pers. *kašāvarz*), v. BBB., p. 72 on 570, which Henning explains as from **karšāw(a)-warz-*, cf. Av. *karšū-* "cornfield", formed like Chr. *dyx'w*, § 393, from *dahyu-*.

(i) Amongst the examples where ' is the initial *ā-* of the second part of the compound (B. "'*p'βr'y* "dropsical" § 1134, Man. *myδ'γt[yyt]* "*Tathāgatas*" Sogd. 27, 16, *wn'r'm* "nursery, plantation" BBB., p. 90, etc.) may be mentioned Chr. '*yn'qwc* ST ii, Man. '*yyn'kwc* M 118 ii R 7, for which Lentz's explanation (Av. *aēnah-* + *kwc'* "mouth") is not convincing, since such a *bahuvrīhi* ought to have the *-aka-* suffix, v. below, p. 144, 1. A verbal noun from the Present stem "*kwc-*, Sogd., p. 53, is possible, but the meaning of the compound is not clear. (Henning suggests *-kwc* might be a suffix, possibly with metathesis from **-cwk*; '*yyn'*- could also be derived from Av. *haēnā-*.)

(k) The formation of the adjective Man. *βγ'ptyc* BBB., "divine," and of Man. *δyw'styyc* "demoniac", Henning, JRAS., 1944, p. 142, l. 7, S. *δyw'styc*, proper name, v. Henning,

¹ In all these compounds the first part of the compound happens to be a light stem. No ' between the two stems is found in Man. *rw'nsp'syy* "soul-service", Henning, JRAS., 1944, p. 142, ll. 9 sq.

² The same applies to the verbal compound forms with S. *sδδh* (§ 763), S. '*krt'sδδ*', '*γt'sδ*, § 868, and to the suffix *-stane* in B. *n'k'stn'k*, § 1118.

Orientalia, viii, p. 88, is obscure. So is the origin of the *-ā* of *mrd'spnd* "element", cf. § 138 fn.

Summing up it can be said that two stems forming a compound are sometimes connected by ' or *y*, which can represent a compound vowel, mainly due to euphonic reasons; or a suffix (**-aka-* or **-ākā-*), or an inflectional ending. The last case includes the Oblique in *δynyfrn*, etc., p. 139 top, possibly the Ablative in B. *δβz'mwrt'y* p. 140, b, and the Feminine of an adjective in *rwxs'n'γrdmn* p. 139 bottom.¹ Finally it should be noted that as in OIr., the numerals 2 and 4 have special compound forms, B. *δyβ-* and *cyrδ-*, *c'rδ'*, cf. § 1316.

THE ENDING OF COMPOUNDS

No suffix is added :

(1) With *bahuvrīhis* (which, as a rule, have the *-aka-* suffix, v. below, p. 144, 1).

Man. **'kt'rk* "dutiful, having carried out his work ('rk)", in the Plur. Obl. *'kt'rktyy* *M* 378, 5, and in the abstract of the negative *n'kt'rk'y'h*, v. Henning, *Sogd.*, p. 30 on 7; compounds with *'wx* "mind", cf. § 236: *š'twx* "happy", *r'twx* "liberal, gift-minded", *BBB.*; Man. *βrtymbnd*, Plur., "enduring the strain (*ymbn*)" *M* 617 ii 29; Man. *βyrt'y'n* "having obtained favour (*y'n*)" *T ii D* 163 b i 9; B. *kβt'pršt* "hare-lipped", above p. 139, c; B. *n'γ'r* "meal-less", § 63, against the *karmadhāraya pš'x'ryy* "after-meal"; Man. *prβrtδst* *Sogd.*, 21, 16, "greeting, lit. cross-armed," Man. *'k'[cyy prβr]tδst* (restored by Henning) "crucified in the air" *T ii D* 79, 1, 14; *pw w s'k* "countless", and others with *pw*, v. § 1164; B. *swβt γwš* "having pierced ears", above, p. 137, against Man. *xrywšyy* "hare" with *-aka-* suffix; **šyštrw'n* "scatter-brain", in the abstract Man. *šyštrw'ndty*, § 451 fn.; Man. *twγp'δδ* "xšviwi.išu-" *Sogd.*, p. 40; Man. *wš'tk'm* "one whose desire is opened, loose" *Sogd.*, 16, 2; B. *zyrnβ'm* *Dhy* 216, "gold-coloured," against numerous words for colour in *-β'm'k*.

¹ In Man. *wnwncβ'm*, N.Pr., "having victorious splendour" *M* 1, 147, the Feminine of *wnwnyy*, cf. below, p. 145, 3, is used by attraction, the proper name referring to a woman.

Here may be mentioned Man. *fryrw'n* "having a good soul" *BBB.*, and *nštfrn* "one who has lost his luck" *T ii D 406 a 2*, imitating and translating, according to Henning, MPers. *hwrv'n* and Parth. *dwšfr*, as well as the proper names Man. *šynfr'δ* "Furtherer of the Religion" *M1*, 85 sq., cf. *fr'δ* "increase" *M 896*, 21, *nwym'x*, *wyšyfrn*, etc., v. above, pp. 138, 139; also Man. *mzyyn* "armoured", which directly continues Av. **hama-zaēna-*, see § 397. Cf. also below, p. 144, fn. 1, on "w-.

Note that the proper names of this type in *-β'm(h)* are feminine, cf. *Sogd.*, pp. 7 sq.

(2) With determinative compounds (here absence of suffix seems to be the rule):

(a) Substantives: B. *'wswytp'zn* "pure-heart" above, p. 137; Man. *γ'w srδ* "cow-year" *T ii D 66 a 1*; S. *knδβr* "town-gate", above, p. 137; *nymyδ* "South", above, p. 137; Man. *pš'γryw* "an after-person, deputy", beside *pš'γrywy*, v. below, p. 144, 2; Man. *pw'nwt* "non-protection, helplessness" *BBB.*, b 77; Man. *sm'nxsyδ* "Lord of the sky, *Rex Honoris*", v. *BBB.*; Man. *srxwyc* "head-ache" *M 568*, 8; *šyryn'm* "cheers; fame", v. Henning, *Kaw.*, p. 74 fn. 8. OIr. inheritance is *xwrsn* "East", on the analogy of which *xwrtyz* "West", cf. § 662, was formed.

(b) Adjectives: *'p m'nwk* *BBB.*, 721, *j'r m'nwq* *M 107 ii 26*, "similar to water, poison"; *βγγβyrt*, proper name, above, p. 139; *xwrnptxwrk* "blood-stained", in *xwrnptxwrkδndyt* *Sogd.*, 21, 19.

(c) Adverb: Man. *ny'wr* "autrefois", § 479.

(3) Prepositional compounds:

Man. *cm'n* "wholeheartedly" *M 794 a 6*, with Oblique ending B. *cm'ny*, Man. *cnm'ny*, v. § 337; Man. *prtxyz* "after the setting", quite uncertain, cf. § 1142.

(4) *Amreditas*: B. *kws kws*, Man. *'ykwn 'ykwn*, etc., see §§ 1633 sq. Cf. also B. *wš'wš* "one by one", § 299.

(5) Compounds which in the case of Sanskrit would be called "synthetic", viz. whose second part consists of a

verbal noun formed from the present stem or from the root, and not attested independently, cf. Wackernagel, *Altindische Grammatik*, ii, 1, pp. 174, 178 sq. Noun of action: Chr. *θb'rywž* "mendicancy", cf. § 57 fn. Agent: Man. *ryt'γwδδ* "face-cover" *Sogd.*, 25, 27. 39, 14 (\sqrt{gud} , cf. Henning, *Sogd.* p. 41, *BBB.* p. 76 on 616, also $\beta\gamma w\delta$ *Sogd.* p. 33 on 11a); nouns in *-kar* § 1121, *-kār* § 1124, *-tāk* § 1128, *-var* § 1131, *-āvar* § 1134, *-dār* § 1135, *-wāč* § 1138, and the doubtful *-pā* (Vocative) § 1137.

Suffix *-aka-*.

(1) This suffix is found with the majority of *bahuvrīhis*, cf. Man. "x'sryjyy" "having a desire of battling, soldier" *Sogd.* 27, 23; Chr. *t'w' qršny* "having your appearance, similar to you" *ii* 5, 10 sq.; Man. *šyrn'my* *BSOS.*, xi 473, 7 "famous, praised", cf. *šyrn'm* above, p. 143, a; etc.

It is also used with *bahuvrīhis* whose second part is a feminine noun, inclusive *-ākā-* stems: Man. "wx'nyy" "living in the same house (x'n)"¹; B. *krw dnt'k* "having defective teeth" from Chr. *dnt'* (on *krw* see Henning, *BSOS.*, x, 96, *Sogd.*, p. 23); B. *krm'yr kwc'k* "having a red beak" *SCE* 172, from *kwc'* "mouth"; *xii rytyy* "having twelve faces" *M* 178 ii R 14, *qrmyr rytyy* "red-faced, joyful" *M* 378, 4, from the Fem. B. *ryth VJ* 261 (*ZKwh*). 269 (*ZKh*). 838 (*ZKh*).

(2) A number of determinative compounds, especially substantives, also have *-aka-*.

Substantives:

Man. "x'sw'δyy" "battlefield" *Sogd.* 27, 22, Chr. **žwnw'dy* "sonship", v. Henning, *Sogd.* p. 26 top, from *w'δ* "place"; S. *'zβ'kwyy'k* "base, root (*wyγ*) of the tongue", *Sogd.* p. 5 *Frg* iv 12; *γryw n'syy* "soul-corruption" *BBB.*, 546, from *n's* *Man. Lett.* ii 17, B. *n's P* 6, 14.146. *P* 8, 136; *nqβtp'znyy* "submissiveness" *M* 133, 51, from *p'zn* "mind"; *pš'x'ryy* "after-meal", *pš'γrywy* "deputy" § 1143, against the above-mentioned B. *n'γ'r*, p. 142, 1, and Man. *pš'γryw*, p. 143, a; *rw'nsp'syy* "soul-service", v. above, p. 141 fn. 1, from (')*sp's*.

¹ See § 351, where some of the *bahuvrīhis* with "w- have no suffix.

Cf. also the *-aka-* stem plurals *pš'bwtyt* *"After-buddhas" § 1143, and *pršnxyt* "small branches" §§ 342 fn. 2, 1142, against *bwt-* (light stem) "Buddha" and *šnæ* "branch"; these plurals, however, may belong to § 970.

Adjectives :

Only B. *š'w kwr'k* "night-blind, *aveugle noir*" SCE 80, has been noticed, against S. *kwr VJ* 50, Plur. *kwrty TM* 389a R 6, Chr. Obl. *qury ii* 1, 26. Cf. also the Plural Man. *wšwšyt* "various" *Sogd.* p. 25 on 9, against the adverb B. *wš'wš* above, p. 143, 4.

(3) "Synthetic" compounds.

Nouns of action: Man. *γw'nw'cy* "absolution", from *w'c-* "to let go"; *q'šxndytt* Plur., "practical jokes," from **sxnd-* "to ridicule", v. *BBB.*, p. 84 on 716.

Agent: B. *'nyrks'yt* Plur., "astrologer, *lit.* star-watcher" (**kas-*, cf. Chr. *pcqs-* "to wait"); B. *š'tkn'k* "burglar, *lit.* wall-breaker" SCE 331 (*kan-* "to dig"); Chr. *frm'n ptywšy i* 84, 12, B. *prm'nptywš'k* SCE 25, "servant," abstract Chr. *frm'n ptywšqy* "obedience" *ii* 6, 13 (*ptywš-* "to listen"); *kpny'sy* "fisherman" quoted *Sogd.* p. 51 (*ny's-* "to catch"); *m'n 'nšk'fyy* "schizophrenic" (**'nšk'f-* "to split"), cf. *BBB.*, p. 67 on 542; **psypw'βy* "preacher of wrong", from which the abstract *psypw'βky'*, above, p. 141, *β (w'β-* "to say"); *pæ'sw'cy* "quarrelsome", from **w'c-* "to speak" (cf. B. *prw'c-* "to disparage" SCE 81) or *w'c-* "to let loose"; B. *wn'wn'k* *Padm* 25. *P* 3, 58. 104, Man. *unwny T ii* 207, 27. *T ii D* 66, 2, 7, Fem. *unwnc*, above, p. 142 fn. 1, "victorious" (**wan-*, cf. § 897 fn. 2); *z'yxyzyy* "creeping on the earth" *BBB.*, 512.

Other suffixes occurring with compounds, where the corresponding second term is not attested independently with the same suffix, are :

(1) *-ākā-*¹ in S. *γwšβwn'kh* "ear-hole" *Sogd.* p. 5, *Frg.* iv, 4,

¹ The ending of the adjective *wrcy'* "appeased, soothed, calm", comparative S. *wrcy'str X1i*, V 21, cf. *BBB.*, p. 67, top, is most unusual. A possible explanation is that *wrcy'* is a *bahuvrīhi* having *šy'* "memory, mind" (§ 102) as its second part, in which case *wrt-* may, according to a suggestion of Dr. Henning's, represent **wirata-*, from *√ram*.

spelled with final *-h* also in the other list of parts of the body (*T ii T*) referred to in *Sogdica*, in which Dr. Henning has recognized the compound *nnsβwn'kh* "nostril", and in the Locative *γwn'k βwn'yh* "hair-pore" *P2*, 296, from Man. B. *βwn M 178 ii V 29. Frg iii 64. 75*. It is, however, possible that an *-ākā-* stem **βwn'* existed, cf. Yagn. *vāna*, Klimchitski, *Zapiski*, 1937, 19 (B. *βwn'yt P 2*, 373, may be Plural of *βwn*, **βwn'*, or of an *-aka-* stem **βwny*).

(2) *-k*. After an *-u* stem in Chr. *bž'xwq* "unhappy", cf. § 391 and above, p. 140, f. "Synthetic" compound, B. *pyδp'k*, § 1137 ($\sqrt{pā}$).

(3) *-yny*: Man. *wysprtnyny*, B. *'βt'rtynn'kw*, v. § 1053.
"Synthetic" compounds in *-kryny*, v. § 1123.

(4) *-wndy*: B. *nw' 100 'βs'nywch* "measuring 900 parasangs", v. § 1092.

(5) *-ān* in *-zng'n* "fold", v. § 1034.

"Synthetic" compounds in *-βr'n*, v. § 1133.

(6) *-yk*: Chr. *b'msnyq* "early, taking place when dawn rises" *ii 3, 58*; Man. *ktyβryk*, v. above, p. 138; *rtñβ'myk M 134 ii R 1*; B. *'yw p'r'yk* "altogether", v. § 1116. In these examples, however, *-yk* is not a compound suffix, except perhaps in *'yw p'r'yk*. *b'msnyq* and *ktyβryk* are derived from **b'msn* (cf. *xwrsn*) and **ktyβr*; *rtñβ'myk* rather means "resplendent like a jewel" than "having the colour (splendour) of a jewel", and is thus a compound of *rtñ* + **β'myk*, cf. Av. *bāmya-*, *vispō.bāmya-*, and Pahl. *bāmīk*.

(7) *-n*. Also the *-n* of Man. *βwδβrn* "scent-holder", § 1029, is not a compound suffix. The use of *-βrn* < *-barana-* is confined to compounds in the same way as that of *-dane* and *-stan(e)*, §§ 1117 sq. The same applies to '(n)*xrwzn* "zodiacal circle" < **-wazana-*, cf. Hittite *va-ša-an-na*, Henning, *JRAS.*, 1942, 236.¹

¹ The B. adjective *βrβwδn DN 46* "perfumed" (if that is the correct reading: in the MS (*P 5*) the final letter looks like the rudiment of what might be an *-n*, an *-h*, or an *-'*), cf. its synonym *βwδn* in the preceding line,

From the compounds quoted so far, a fairly comprehensive idea can be formed of the types of compounds in Sogdian.¹ They may be briefly surveyed as follows:

Bahuvrīhis are still very much alive in Sogdian, whereby those having a past stem as their first part should be noted, cf. B. *krt'sp's*, *kβt' pršt*, *swβt γwš*, Man. *βrtymbnd*, quoted above, and their negatives with *n'*-, cf. *n'βrtpcxwnyḥ* and others, § 1156.

Of this type of *bahuvrīhi* there are apparently some where the order of the parts of the compound is inverted: Man. Chr. *šyr(')qty* "good, pious", v. above, p. 141, β, from *šyr* "good" + the *-aka-* Past participle *'qty*; B. *βr'n βstk r'βk'w* "a patient whose breath has stopped, an asthmatic" SCE 104; B. *nyc ptrwγšty* "avec le nez obstrué", 'škwch 'ptr'γwšt'k r'β "maladie du gosier obstrué", cf. JRAS., 1942, 99. Such "inverted *bahuvrīhis*" occur in Sanskrit, v. Wackernagel, *Altind. Grammatik* ii, 1, 302; for Khotanese cf. *ārratāḍa*-, *buljsājsera*-, *pajsamajsera*-, Konow, SPAW., 1935, p. 438; for NPers. cf. *ریشسفید*, *روسفید*, *زبانبریده*, quoted by Horn, *Gr. Ir. Phil.* i, 2, p. 197.

Amongst the determinative compounds those where the first part has the function of an Oblique case depending on the second part, seem to have been current. Apart from those quoted pp. 143, a. 144, 2, cf. Man. *βγpšyy* "god-son (angel)" M 178 ii R 15, *βndktyc* "house of imprisonment (prison)" BBB.; *γ'wrwγnyy*, Obl., M 568, 2 "cow-oil (butter)"; *qpyy'tyy* "fish-meat" (recognized by Henning) M 568, 1;

is likely, according to a suggestion by Henning, to go back to **fra-baudana*-. The types represented by Av. *barō.baoda-* and *baraṭ.zaōθrā-*, do not seem to occur in Sogdian, excepting *βrpšh* "pregnant" P22, 18 (reference by Henning) = *baraṭ.puθrā* (Parth. *barbuhr*, cf. Khot. *baravirñā*, Bailey, BSOS., ix, 77).

¹ A number of Sogdian compounds existed already in OIr., cf. *δβ'mbn* (above, p. 137), *mzt'yzn* (p. 139, a), *mzyyn* (p. 143, 1), Man. *dywδ't* (cf. BBB., p. 80 on 665), B. *βyδ'n* (cf. *Sogd.* p. 30), Chr. *ptqry* (cf. BBB., p. 93 on b 40), B. *wp'p* (§ 98), and B. *p'rδwnph* "crupper" VJ 1419, which, according to Henning, corresponds to Pers. *pārdum*; Arm. **pardum* (Stackelberg's reading for *aprdum*), v. Hübschmann, *Armenische Grammatik*, pp. 244, 515, from OIr. **pāri-dum(b)a-*.

S. *myrprn*, N. Pr., "Sunday-luck" *Sogd.*, p. 6; *rwwt* "pyy, Obl., "river-water (river)" *M* 133, 17; *x'xsryyt*, Plur., "fountain-spring (source)" *M* 178 i V 1. More examples in Benveniste, *Grammaire*, p. 103. Not quite clear is *m'nprn'tyy* "φρόνησις" (name of the third part of the soul), cf. *BBB.*, p. 77 fn. 1, *lit.* "mind-thought" ?

Less frequent are determinative compounds with adjectives or participles as their second part. See above *čšmy wyny* (p. 139), *βγγβγῖῖ* (ib.), "p *m'nwk*, *xwrnptxwrk* (p. 143, b), *š'w kwr'k* (p. 145), *δβζ'mwrt'y* (p. 140, b). Add S. *γwtyywytš'kw* "self-wished (= friend)", v. Henning, *JRAS.*, 1944, 139 fn. 4; Man. *δywny'tyy* "possessed by demons" *BBB.*, B. *w't ny'(')l'k Dhy* 226. *P* 2, 36 "taken by wind, suffering from a wind-illness"; S. *kyn 'ws'wytk* "free from hate" *Sogd.*, p. 60, 10; *nyz'r pyštytyy*, Plur., "hardship-stricken" *Man. Lett.* ii, 13; *wyspyrβ'ktt*, Plur., "allwissend" *M* 286 ii 14; S. *wyspšyr* "allerbest" *T ii D ii* 169 (a) i R 4.

Karmadhārayas with an adjective as first member are rare. See above *'wswytp'zn* (p. 137) and *šyrn'm* (p. 143, a). Add perhaps B. "δδβγ "supreme God", cf. Skt. *ādi*, v. Benveniste, *Grammaire*, p. 159. A curious inverted *karmadhāraya* is Man. *βγnw'*, above, p. 138 fn. 2; elsewhere the Nominative *βγγy nwy* occurs.

Compounds of the "synthetic" type seem to have been quite common, as seen above.

Dvandvas only seem to occur as translations of foreign *dvandvas*, cf. *z'δmurδw* "birth-death (*samsāra*)"; *frnw'xšyqt* "Glories and Spirits" *T ii D* 66, 2, 14, recognized by Henning as the equivalent of MPers. *farrahān uδ wāχšān*, v. *BBB.*, p. 11; Benveniste, *Grammaire*, p. 100, has pointed out Chr. *qržwrtz*, Plur., "miracles" *i* 68, 22; *mwrč'jw'ndy*, above, p. 140, a, may also belong here. However, the number of *dvandvas* would be greatly increased if one considered as such the examples of synonymous hendiadys and of synthetic inflection quoted §§ 1635, 1636, 1639, 1640.

Finally should be mentioned a more occasional type of compound, which Henning, *BBB.*, has termed *open compound*.

It consists of a collocation of a group of words, approaching the status of a compound, without having reached its stability. Cf. the following examples in *BBB.* : *δpyry'h ptyrnyy* "opposed to writing" 524 sq.; *zβnd pc'w'kryy* "causing the comrades to quarrel" 543 sq.; *prdyzt jmnycyq-w'r* "watering at the time suitable for the orchards" 571; *mrc βnd'm yw'nkryh* "a death-sentence sinner, a sinner punishable with death" 645 sq.

TWO CENTRAL ASIAN WORDS

By W. B. HENNING

THE study of "cultural loan-words" is perhaps the most fascinating of philological pursuits. Such words, passed on from nation to nation, often undergo considerable phonetical changes; but they possess very precise and limited significations. So the more latitude we may claim in regard to form, the less we should arrogate to ourselves in the matter of meaning.

A. DAMASK

In the Kharoṣṭhi documents found at Niya there occurs twice a word *prigha* (Nos. 316, 318) which Lüders, *Textilien im alten Turkistan* (*Abh.P.A.W.*, 1936), p. 30, combined with Skt. *pr̥ṅga* in the *Mahāvvyutpatti*, 232, 26, there explained as 綵絹 "thin flowered silk", Tib. *dar ri-mo-can* "silk marked with figures". In Doc. No. 318 (line 6) Lüders corrected the text given by Boyer, Rapson, and Senart, and proposed *śpeta-prigha* "white damask", an admirable suggestion which we shall be able to confirm with fresh material. Lüders' conclusion (based on his own emendation) that *prigha* meant "unicoloured figured silk (= damask)" can be fully substantiated now. His emendation has been approved by T. Burrow, *Transl. of the Kharoṣṭhi Doc.*, 1940, p. 59, who examined the original.

In the *Mahāvvyutpatti* *prigha* is spelt *pr̥ṅga*, with variants *pr̥ṅgu* and *pr̥ṅgā*. The best Sanskrit form would presumably be *pr̥ṅga*. Thus spelt the word is found in yet another dictionary of Buddhist Sanskrit, the *Fan-yu-ts'ien-tzū-wen*, fol. 38^a2^a, cf. Bagchi, *Deux Lexiques Sanskrit-Chinois*, i (1929), p. 280, No. 541.¹ It is there explained by 綾 *ling* "fine and thin silk material, damask".²

¹ We note in passing that *thacaṇa* *ibid.*, No. 537, *toile, tissu*, is *thavaṇa* (cf. Lüders 21 sqq.); and that *sucikarmma* = *sūcikarma* is translation of Iranian *suj'inakirta* (cf. Lüders 31).

² "Properly thin silken satin fabric, also thin linen, figured taffeta" (Palladius).

**pring* occurs only in Central Asian Sanskrit ; it is unknown to Sanskrit proper, or indeed to any Indian dialect. However, it is found also in several Iranian languages, notably in those spoken in Chinese Turkestan ; it also appeared in Western Iranian, in Pahlavi and Persian, whence it migrated to Aramaic and Arabic. We shall deal with Sogdian and Manichæan Middle Persian first.

Among the Sogdian manuscripts discovered by M. Pelliot at Tun-huang and published by M. Benveniste in 1940 (*Mission Pelliot en Asie Centrale, série in-quarto*, vol. iii, *Textes Sogdiens*, Paris, Geuthner) there is a shamanistic text (P 3) which describes the various types of "rain-stones" (*jade*) and their application. The poor "rain-maker" (*jade-kare*) needed an enormous number of utensils for his performance, enough to discourage anyone from taking up his profession. Amongst other duties he had to paint several pictures, one of them on a *kp'wtk pr'yнк* = *kapôte pring* "a dark-blue piece of damask" (P 3, 128), another on an *'sm'nywn kp'wtk pr'yнк* "a light-blue piece of damask" (P 3, 146). M. Benveniste, who tentatively suggested "*rideau*", did not recognize our word.

We know next to nothing of Sogdian poetry. But among the unpublished Manichæan Sogdian fragments there are at least two which seem to contain poems written in that language ; both are unfortunately difficult to read and understand. The contents of M 137¹¹ are described in its caption as a *zndp'šyk* = song-hymn ; its last lines are :—

<i>spytyy pryng nywδn'</i>	Garment of white damask,
<i>βγγγ npyk 't δsty'</i>	God's book in the hands.
<i>'δryy z'r wftyj kwrd'k</i>	Three thousand woven jackets,
<i>pncz'r zwynk'h oo</i>	Five thousand <i>zwinkas</i> ,
<i>zyrnaync šwq 't δsty'</i>	Golden pen in the hands.
<i>n'ktync</i> [end of fragment]	Silver

The translation admittedly does not make much sense. But the passage is valuable for at least two of its words. Firstly, *zwynk'h*, evidently a kind of garment or fabric. This is surely the same as the *توب ژونكى* "suit of **zwinki*",

an item among the presents¹ sent to Maḥmūd of Ghazna by the ruler of Khitay (in about A.D. 1024), according to Šaraf az-zamān Ṭāhir Marwazī, ed. V. Minorsky (text 8¹⁵, transl. 20, comm. 79); Professor Minorsky suspects that the curious word is Chinese by origin. Secondly, *spyttyy pryng* "white damask", so exactly the *špeta-prigha* of the Niya documents. In all Sogdian passages *pring* is qualified by an adjective denoting a colour, a fact which corroborates Lüders' definition of its meaning as monochrome damask.

In Manichæan Middle Persian *pring* has been noticed only once, in M727^aV, a hymn fragment which is given here in full:—

- 1 *rymn'n qyyš'n u hmwž'g'n o myl'(d)*
- 2 *pymwg pryng u prng'n o n'zyšn 'yg znyñ u*
- 3 *srwd 'y š'dyḥ o shyyny 'y xwd b'w*
- 4 *'wd bwyyst'n o 'wd p'rg d'sn 'wd*
- 5 *pdyst'wg'n ny pry'dynd pd h'n rwc 'y*
- 6 *wdnng oo phyqyrb 'y pydr qnygrw[šn]*
- 7 *h'n 'y xwd pry'dyd pd h'n rwc ['y]*

- 1 . . . the accursed dogmas and teachers; mantle² and
- 2 suit, monochrome and polychrome damask; pleasantries of women
- 3 and songs of joy; the wonderful sights of vineyard³
- 4 and garden; bribes, presents and
- 5 promises⁴:—they do not help on that Day of

¹ The شکردی (*ibid.*) is perhaps Sogdian **uškarḍī(k)*, from *uškarḍ(wšk'rḍ)* "needle". Hence, Sogd. **uškarḍī(k)* = Pers. *sōzangerd* = Niya *suḡ'inakirta* (see above, p. 150, n. 1), or more exactly = Pers. *sōzani* which occurs, e.g., in the *Divān-i Albise* by Niḡāmuddīn Maḥmūd-i Qārī-i Yazdī, p. 201 (ed. Stambul, A.H. 1303). [Professor Bailey kindly reminds me of Turkish *āškūrti*, *iškirti* and *žūngim*, *zungum*, both for kinds of "brocade", see *Türkische Turfantexte*, vi, p. 170.]

² *myl'(d)*? Reading uncertain. Provisionally I translate as if this were one of the words which from time to time have been connected with *μηλωτή*, viz. Mand. *mwr't*, Syr. *mrt'*, *mrtw'*, Arab. *mirt* on the one hand, and Syr. *mīlthā*, Aram. *myl'* on the other.

³ Or "garden", etc.; *bāw* from *bāy*.

⁴ *BSOS.*, ix, 86. Restore *pdyst'[w]* also in *Mir.Man.*, iii, p. 851 (a 54).

6 Distress. The Image of the Father, the Maiden of Light,¹

7 she who alone helps on that Day [of Distress . . .] Here we find *pring* joined by *prng'n* = *parnagān* which provides the genuine Middle Persian form of Persian *parniyān* "multi-coloured damask". Horn² derived the Persian from a pretended Middle Pers. **parnīkān*; he allowed himself to be deceived by the Pahlavi spelling which he analysed as *PLNYK'N* while in truth it is meant to be read as *PLNYD'N*, inverse spelling of *parniyān*.³ The Pahlavi word is thus not different from the Persian. Horn, of course, could not refer to the Man. MPers. word; but he might have known the Arabic loan-word *بَرَناكَن* (*Jawāliqī*, *Mu'arrab*, 24, 29, ed. Sachau), or the Jewish *פֶּרְנָגָן* *parnagān* in the Esther Targum (5¹, 6¹⁰), see Siddiqi, *Studien über die persischen Fremdwörter im klassischen Arabisch*, p. 74. Fleischer *apud* J. Levy, *Neuhebräisches und Chaldäisches Wb.*, vol. iv, p. 229, proposed reading *פֶּרְנִיגָן* instead, and referred to Buxtorf, *Lex. Chald. Talm. et Rabb.* (Basel, 1639), col. 1820, where this spelling was given. But Buxtorf himself gave *פֶּרְנָגָן* (thus very correctly pointed) in col. 2383, and this is undoubtedly the proper reading. The Targum text is *הוּא שִׁירָאָה פֶּרְנָגָן טַבָּא*, Buxtorf *est sericum Parnaginum optimum*, "it is best (multi-coloured) damask silk."⁴

In Persian *pring* has suffered three changes. Firstly, a brief vowel, either *i* or *a*, was inserted between *p* and *r*. Secondly, the final *-ng* was replaced by *-nd*. Thirdly, the main vowel was changed to *-a-*. The standard Persian form, *parand*, occurs already in Pahlavi where we have *parand ud parniyān*

¹ "Maiden of Light" here = *Lichtgestalt*, cf. Polotsky, *Le Muséon*, xlv, 270 sq. C. R. C. Allberry, *Manich. Psalm-book*, 66²²⁻⁴, 81²¹⁻², 84³⁻⁵.

² *Grundriss Iran. Phil.*, i, 2, p. 46.

³ E.g., *GrBd.*, 118⁴, *d'lypwny'd'n* = *dār-ī porniyān* = Pers. *dār-ī parniyān* "brasilwood" (for *-pwl-* cf. Jewish Pers. *d'l-pwrny'n*, Bacher, *Hebr.-Pers. Wb.*, p. 51 of Hebrew text, No. 237).

⁴ Chinese patterned silk has been found in Palmyra in tombs as early as the second or third century A.D., see O. Maenchen-Helfen, *The Art Bulletin*, December, 1943, vol. xxv, 358 sqq. (with full references).

combined in *Šnš.*, iv, 4, p. 86, in Tavadia's edition¹; in the MS. K 20 the last letter of *parand* is here marked as *-d* (fol. 63^v14). It also is found even in the Talmud where, as already Buxtorf saw (*loc. cit.*), שֵׁרָא פֶרְנָדָא *šērā pərāndā* "damask silk" replaces the Targumic *šērā pərnagān*; but the words *pərāndā* and *pərnagān* are naturally not identical.

The change of final *-ng* to *-nd* is common enough in Persian, although it is not mentioned in any historical grammar of that language. The following examples may suffice:—

1. Pers. *aurand* "throne, glory, etc." from Pers. *aurang*.²
2. Pers. *kuland* "pickaxe" from Pers. *kulang*.
3. Pers. *dīrand* "world, time" in a verse by Rūdakī, *čun to bas dīd u bīnad īn dīrand* "this world has seen many like you and will see still more" (Asadi, ed. Horn, p. 30; S. Nafisi, *Aḥvāl va Aš'ār-i . . . Rūdakī*, vol. iii, Tehran, 1319, p. 1055).³ From Pahl. *dērang* "(the) long (period of the present world)", in *Zarwān-i dērang-xwadāi*. Even in Pahlavi MSS. the word is often pointed *dērand*. In the new edition

¹ B. M. Dhabhar, *The Persian Rivayats*, Bombay, 1932, p. 30, erroneously translates as "a girdle of silk". I take this opportunity to correct the reading of *Šnš.*, iv, 6, where Tavadia, p. 87, gives *garmānak-i 2-tōk*, against the MSS. both of which have *gwm'nk*. Read *gurmānak* = Syr. *gurmnaq'*, *gurmān(a)qā* "vestis duplicata" P. Smith 692, Brockelmann, *Lex. Syr.*² 134, Nöldeke, *Mand. Gramm.*, 40, n.3. Arab. *zurmānaqah* "a sleeveless woollen vest" (*Mu'arrab*, 76, and Sachau's notes, p. 38) is possibly the same word (differently Fraenkel, *Aram. Fremdw.*, 289). *gurmānak* < *gurbānak* < *varpānak*? Cf. Arm. *varapanak*, etc., Pers. *barvān* (Kohut, *Kritische Beleuchtung der Persischen Pentateuch-Uebersetzung*, 56 sq.), the etymon of Skt. *vārabāṇa* which P. Thieme, *ZDMG.*, 91, 91 sqq., discussed.

² Parthian *'brn(n)g* has been compared, but it means neither "splendeur" (Benveniste, *JA.*, 1936, i, 194 sq.), nor "chastity" as I had translated, misled by the apparent Syriac equivalent *nkpw't* = *nakhpūthā* (Pognon, *Coupes de Khoubir*, 129¹⁴ = 189²²; Cumont, *Recherches*, i, 35). This is almost certainly a copyist's mistake for *'kypw't* = *akkīpūthā* "sedulitas"; it corresponds to Sogd. *'ntwys*, Uyğur *tavranmaq*, and the Chinese words *apud* Waldschmidt-Lentz, *Dogm.*, 490 sq. (H 165⁵, 170⁵, 174c⁵). Hence, Parthian *abrayg* = eagerness, assiduity.

³ *dīrand-āsā*, in another verse, is certainly a wrong reading, in the place of *faryand-āsā* (see Nafisi, *loc. cit.*, pp. 1000, 1153 sq.), or rather *fažyand-āsā*. The error may be due to the proximity of the articles *dīrand* and *faryand* (= *fažyand*) in Asadi's dictionary, at any rate in the MS. published by Horn.

of Asadi's dictionary by A. Iqbal (Tehran, 1319) there is even a verse by Rūdakī for *dīrand* = *dirāz* "long" (p. 101).

4. Pers. *āvand* "a line on which grapes are hung to dry" from Pers. *āvang* (both forms are well attested) from **āving*, from the root of *āvīxtan* "to hang", cf. *āvingān* "hanging", etc.

The last-quoted example shares with *parand* the change of *-ing* > *-and*. The derivation of *parand* from *pāring* is put beyond doubt by the fact that the latter form still occurs occasionally in Persian. *پَرَنگ* is registered by the author of the *Farhang-i Jahāngīrī* who gives *pirang* as pronunciation¹ and "a damascened sword" (see below) as meaning; but he quotes no passage. However, I find that the rare form was used by Ĵamāl al-Qurašī in *aṣ-Ṣurāḥ mina 'ṣ-Ṣiḥāḥ*, his abridged Persian translation of al-Ĵauharī's Arabic dictionary, for example *s.v. firind*. The author who lived in Kāshghar in the second half of the thirteenth century, probably used a local form. As regards the main vowel of the word, Firdausi still pronounced it as *p(a)rind* (*pārind*); he rhymed it with *hind*, e.g. *Šāhnāme* 7, 759; 15, 4079 (= ed. Vullers, i, 171, 759; iii, 1729, 4087). But his contemporary 'Unṣurī said *parand* (e.g. Asadi, ed. Horn, p. 31), and so did Nāṣir-i Khosrau (*Dīvān*, 143, 14). The Arabs who borrowed the word preserved the older pronunciation; they have it as *birind* (*Mu'arrab* 28) or, more commonly, *firind* (*ibid.*, 60, 111), cf. Siddiqi, *loc. cit.*, 23, 71.

The meaning of the Persian word is sometimes wrongly given as "plain silk". This misunderstanding arose from the frequent juxtaposition of *parand* and *parniyān*; as the latter was known to mean "figured silk", the inference was drawn that the former should be "non-figured = plain silk". In truth both words mean "figured silk" in Persian (as in the other languages), the difference lying merely in the

¹ Better *pāring* or *piring*. Not to be confused with the word for "bronze".

colours of the fabrics they describe. Cf., e.g., this famous verse by Farrukhi:—

*ĕun parand-i bīdgūn¹ bar rūi pūšad marγzār
parniyān-i haft-rang andar sar ārad kūhsār²*

which E. G. Browne translated³:—

Since the meadow hides its face in satin shot with greens and blues

And the mountains wrap their brows in silken veils of seven hues.

The fine tracing of fresh meadow-grass is compared with the light lines woven into damask, which is here said to have the “colour of (the young leaves of the) willow” (if *bīdgūn* is the proper reading); *parand* is monochrome, *parniyān* polychrome, here as always.

Further proof is provided by the development of the meaning of the word in Persian and Arabic which can be understood only if it meant “damask”. For *parand/firind* is commonly used also of the “damask” of a sword, see, e.g., the elaborate description given by al-Beruni in the *Kitāb al-ġamāhir fī (maʿrifat) al-ġawāhir*, cf. Zeki Validi, *ZDMG.*, 90, 26 sq. (the text is now available *apud* Zeki Validi Togan, *Bīrūnī’s Picture of the World [Mem. Arch. Survey of India, vol. 53]*, p. 102; *firind* and also *ifirind*). Finally, the word is misapplied as “a blade of damasked steel”: with poets it often means little more than “a good sword”.

One hesitates to propose an etymology for a word of this type as its home language is not easily established. Possibly *pring* belonged originally to the language of the Sogdians who played such a prominent part in the overland trade between China and the West, with their settlements all along the road which not unsuitably has been named the “silk-route”. One could imagine an Old Iranian **upa-ringa-*

¹ *Vulgo nīlgūn*; the rarer word *apud* Asadi, ed. Horn, 31 and 97, ed. Iqbal, 92 and 370.

² *Divān*, ed. ‘Alī-i ‘Abdu’r Rasūlī, Tehran, 1311, p. 177.

³ *Āhār maqāleh*, transl., p. 43.

(with the word *ringa* occurring in Av. *Haptō.iringa-*), which would mean “marked, lined, figured” or the like, and which certainly would become *pring* in Sogdian.

B. TOMB

գերեղ լսն *gerezman* “grave, tomb” is a frequent word in Armenian. It occurs in the earliest (fifth century A.D.) documents of that language—e.g. the “(whited) sepulchres” of *Matthew 23*²⁷ are *gerezman* in the Armenian version—and is still used nowadays, cf. Artašes Abeghian, *Neuarmenische Grammatik*, 1936, p. 232:—*gerezman* = *Grab*, *gerezmanatun* = *Friedhof*, *Kirchhof*. It has often been suspected of Iranian origin, but the only Iranian etymology ever proposed, a derivation from Parsee Persian *garzmān* “heaven”, has been rejected by Hübschmann, *Arm. Gramm.*, i, 127, for the very best of reasons. For that Iranian word (Av. *garō dāmāna*, *garō nmāna*, Pazend *garōθmān*, Sogdian *γarδman*, Parthian *gardmān*, Manich. Middle Persian *garāsmān*, etc.) which in any case has interior -δ-, not -z- (Parsee Persian *garzmān* being a late and corrupt spelling), means nothing but “the highest heaven, the Throne of God”, or loosely “heaven, paradise”. While a word for “tomb” may come to mean “the underworld”, “the Beyond”, conceivably even “paradise” (although one hesitates to admit this), the reverse development, paradise → tomb, is well-nigh unthinkable.¹

Far from Armenia, on the eastern fringe of the area penetrated by Iranian culture, there is another interesting word for “tomb” in Mongolian, *ᠰᠤᠪᠦᠷᠢᠶᠠᠨ* *suburyan* = “sepulchre, tomb pyramid for the relics of deified persons”;

¹ Marr, *Zap. Vost. Otd. Imp. Russk. Archeol. Obšč.*, 1890, vol. v, 319, n. 3, ably but unconvincingly defended the derivation from *garō dāmāna*. He quoted Hebrew *šə'ōl*; but whatever may have been the original meaning of the Hebrew, it certainly was not “paradise”. He suggested an intentional depreciation of the word by Christians; but there is no other trace of such a process (which would be parallel to the way in which the *Devas* became *demons*) in Armenian. In any event, the interior -z- is the stumbling-block.

as Buddhist term, *suburyan* is the equivalent of Skt. *stūpa*, i.e. a mound or tower or pyramid or dome in which relics of the Buddha are preserved. It is found already in Uygur Turkish where in the hendiadys with either *sin* "tomb, grave"¹ (see F. W. K. Müller, *Uigurica*, i, 58; ii, 53; Bang-Gabain-Rachmati, *Türkische Turfantexte*, vi, p. 128, line 290 var.), or *sitavan* = Skt. *sītavana*, *śī-* (*Uigurica*, iii, 19⁹, 21³) it is "burial-place" in general. By itself it is met with in a Manichæan story (LeCoq, *Türkische Manichaica*, i, 6², spelt *supury'n* in Man. script, = either *supuryan* or *suburyan*) which tells of a prince who being intoxicated spent a night in a tomb: he mistook it for his own house. It is clear from the story that a *suburyan* was a sepulchral monument raised above the ground, not, e.g., a subterranean vault. The word was still current among the Turks of Transoxania in the eleventh century; Maḥmūd al-Kāšyarī registered it in his *Dīwān luyāt it-Turk*, i, 425 (where سبرغان is misprinted as سبزغان) and explained it as *an-nā'ūs wa-maqābir ul-kafarah* "a non-Muslim sepulchre,² the burial-places of the heathen". See also Brockelmann, *Mitteltürk. Wortschatz*, p. 184.

MM. Chavannes and Pelliot, at the end of their careful discussion of the Turco-Mongol word (*Traité Manichéen*, 131-2 [107-8]), suggested that it might be a loan-word from Iranian, and M. Gauthiot supported them with an etymology, **spur-χān* "demeure de perfection". This explanation, although ingenious, is not perfect; for *suburyan* has -γ-, but *χān(ak)* "house"³ has -χ-; further, **spur*, properly *uspurr* (in Sogdian *spurn* → *spun*), means "perfect" but not "perfection" so that we should have to assume a type of compound that is rather rare in Middle Iranian. But the main objection

¹ Cf. Brockelmann, 'Alī's *Qiṣṣa'i Jūsuf*, p. 52; Aptullah Battal, *Ibnū-Mūhannā Lūgati*, Istanbul, 1934, p. 60.

² Arab. *nā'ūs* (ναός) has often this meaning, see Dozy *s.v.*, cf. also Syr. *nausā* = cemetery, Brockelmann, *Lex. Syr.* ² 421. One is tempted to render it with "*stūpa*" here.

³ In passing we note that Sogd. *k'n'kh* "hut" should be read *k'z'kh* = Persian *kāze*.

is against the proposed semantic development: *demeure de perfection*, or rather “perfect-house”, does not seem to me to be a satisfactory term for a “tomb”.

Thus we have two words, Arm. *gerezman* and Turk.-Mong. *suburyan*, both = “tomb”, both suspected of Iranian origin but never compared with each other. So far no corresponding form has been found in any Iranian language. However, a suitable word is at hand in Persian where we have *mary(a)zan* and *marz(a)yan* “sepulchre, cemetery”. The second spelling is established by a pun upon (-*bar*) *zayan* “vulture” (or “kite”)¹ in a verse ascribed to ‘Unṣurī, the poet-laureate of Maḥmūd of Ghazna² :—

har-ke-rā rāhbar zayan bāšad
manzil-i ū be-marzayan bāšad

i.e. “whoever takes a vulture as his guide, his lodging will be in the cemetery” (Asadi, p. 105, ed. Horn, p. 362, ed. Iqbal). The other form, *mary(a)zan*, invariably evokes a play on *maryzār*. Imāmī-i Haravī, a poet of the thirteenth century, said :—

ān jihāndār-ī ke gašt andar nabard
maryzār az zaḡm-i tīyaš mary(a)zan

i.e. “that great king through whose sword-blows, in the course of the battle, the plain has turned into a graveyard” (*Farhang-i Jahāngīrī*). Šams-i Fakhri (fourteenth century) produced this not very original verse :—

šāhī ke bar muḡālīf-i dargāh-i xwīštan
az kīne maryzār kunad hamčū mary(a)zan

i.e. “the king who in his wrath against the antagonists of his court turns the plain into a cemetery” (p. 108, ed. Salemann). *Mary(a)zan* (*Farhang-i Rašīdī*) is better than *marz(a)yan* (*F.-i Jahāngīrī*) in a verse by Sanā’ī (first half of twelfth

¹ From *zayan*, from *zyan*, see *BSOS.*, x, 97, n. 2.

² S. Nafisi, *loc. cit.*, p. 1104, No. 801, attributes it to Rūdakī, apparently on the authority of Surūrī. One would rather trust Asadi whose work preceded that of Surūrī by several centuries and was one of the most important sources of Surūrī’s dictionary.

century) who may have been the first to play on *maryzār* :—

hīe nandīšī ke āχīr¹ čun buvad anšām-i kār
maryzār āyad jazā-yi fi'l-i to yā mary(a)zan

i.e. “ are you not worried at all by the thought how² your *finis* will be ? Whether the retribution of your deeds will be the Meadow (of Paradise) or the Tomb (of Hell) ? ” It was from this verse, I presume, that some clever lexicographer inferred that *mary(a)zan* should have had the meaning of *ātaš* “ fire ” ; by that word he evidently meant “ the infernal fire ”. His successors interpreted his *ātaš* and boldly asserted that *mary(a)zan* meant (1) Hell, (2) a brazier, (3) cemetery. This set of meanings is as baseless as the wrong spelling *marzayān* which is paraded in the dictionaries. The older lexicographers know only of *marz(a)γān*, *mary(a)zān* = *gūristān* “ cemetery ”.

A variant of *mary(a)zan* is the form used in Parsee Persian, *maryūzan*, from **maryūzan* < **maryəzan*. It is employed for the famous mausoleum of Khosrau Anosherwan, see B. N. Dhabhar, *The Persian Rivayats*, 586 (with references). J. Darmesteter, *Études Iraniennes*, ii, 132 sq., proposed an etymology (from **mary* “ death ” + Pahl. 'z'n³ “ *daxma-* ” = Old Pers. “ *apadāna* ”⁴) which, although brilliant at the time, cannot seriously be entertained now. An etymology should be based on the correct Persian form, not on a corrupt spelling.

A major obstacle to the intended comparison of *gerezman*, *marzyan*, and *suburyan* appears to be the initial group of sounds of the Turco-Mongol word, but there is no real difficulty. The first vowel of *suburyan* is obviously intrusive (this was assumed also by M. Gauthiot); the vowels of all three words seem to be altogether of no account, excepting the stable -*ā*- of the final syllable. Initial *s-* in a foreign word in Turkish can

¹ Var. *ke tā χvad*.

² Or: whether in the end, when the final accounting will be, the retribution, etc.

³ On this word see now *BSOAS.*, xi, 479.

⁴ See these *Transactions*, 1944, 110, n. 1.

represent original *s-* or *z-*. As Turkish did not possess initial *z-*, that sound was regularly replaced by *s-*. This is so well established that there is no need to quote examples; but we may take this opportunity of mentioning a hitherto unrecognized Sogdian loan-word in Turkish, viz. Turk. *سندواچ sanduwaç* "nightingale" (see Kāšgharī, i, 435; iii, 134 = *'andalīb*; Ibn Muḥannā, 176 = *hazār*) from Sogdian *zntw'ch* ('*mry*') = *zandwāč* "singing (bird)", but also "nightingale" as similar Sogdian loan-words in Persian (*zand-wāf*, etc., see *BSOS.*, x, 104 sq.) prove. Thus *suburyan* may represent an earlier **zburyan*. Its initial *zb-* can perhaps be explained as the outcome of an original *zm-*. Such groups of consonants are often subject to changes, especially when a word has to be adapted to an alien tongue. A good parallel for this particular change in a loan-word is provided by the Arabic for "emerald", *zabarjad* form *zmargad*. The whole structure of *zmargad* closely resembles that of **Sogdian *zmaryan* or **zmāryan* which, I think, we are entitled to claim was the original word that the Turkish tongue transformed into *suburyan*.¹

Thus there was an Iranian word for "tomb" or "sepulchre" which consisted of a final syllable *-ān* preceded by the four consonants *r*, *m*, *z*, and *γ* (Arm. *g* = Iran. *g* and *γ*) which were interspersed with some odd vowels and occurred in variable sequence; the liberal metatheses were due no doubt to the character of the consonants as continuants. Neglecting the vowels we have:—

- *Median *γrzm-an* → Armenian *gerezman*
- *Sogdian *zmrγ-an* → Turkish *suburyan*
- Persian *mrzγ-an* → *marzayan*
- Persian *mryz-an* → *mary(a)zan, maryūzan.*

This is as far as matters can be carried with safety. As we have no means of deciding which order of the consonants

¹ Similarly Kāšgharī's *tarmaz/turmuz* "sorte de courge" (recently discussed by Pelliot, *T'oung Pao*, xxxvii, 1944, 101) from *tarbuz*. Professor Bailey reminds me of Minorsky's derivation of Turk. *īsmar-la-* from *ūspār-*, *JRAS.*, 1942, 194. Note the presence of *-r-* and a sibilant in these words.

was the original one, there is not much point in inventing etymologies. E.g., one could think of Av. **zəmarkana-* “dug in the ground”, on the model of Av. *zəmarginz-* “hiding underground” on the one hand, and of Av. *avakana-* “hollow, cave” or *hankana-*¹ on the other; but unfortunately the word for “tomb” seems to have had an interior OIr. -*g-*. The only known Old Iranian word which apparently has all required sounds is OPers. *m(a)rgazana*, the name of a month; but this is merely restored from the Elamite transliteration *markazanaš*, and hence somewhat uncertain; “sepulchral” is in any case not convincing as name of a month.

One would like to know what kind of tomb it was that was designated by our word. The fact that it was borrowed by other nations suggests that the tomb in question was of a type current in Iran, but certainly not an ordinary “grave”. The nearly total oblivion into which the term fell in its home country and in particular the silence on it of the Avesta (which surely contains more than enough references to funeral rites) point to a mode of burial of which the Magian priests disapproved and which they suppressed together with the word for it. In view of the passages discussed in this article and considering the archaeological evidence as presented by E. Herzfeld, *Archæological History of Iran*, 31 sqq., one is inclined to think that the word was originally employed for the type of grave-chamber raised above the ground whose most magnificent example is the famous tomb of Cyrus at Pasargadae.

¹ But this is possibly not an Iranian word at all. Av. *hankana-* would become *hangān* in MPers., and this occurs in Man. MPers., T i 5 = M 1005, 21 (no context), *hgn 'wd hyjg*, evidently = “basin and pail”. This *hangān* cannot easily be separated from Hebrew *aggān*, Syr. *aggānā*, Ar. *inḡānah*, *ifḡānah*, etc., from Akk. *agannu*, cf. Brockelmann, *Lex. Syr.*² 4a (where references, also to Arm. *angan*). The Av. passage, in the Ardi Sur Yasht (from about 400 B.C.), *hankaine paiti aiḡhā zəmō* “in a *hankana* of this earth” reminds one of Talmudic *aggānē dā'ar'ā* “*hankanas* of the earth” (so to say), cf. Buxtorf 23 “*fossae proprie rotundae quae sunt quasi aggānōth crateres rotundi, scribit R. David*”, see further J. Levy, *Neuhebr. Chald. Wb.*, i, 21 sq. Thus *hankana* may be the Akkadian/Aramaic word, slightly transformed by popular etymology.

DIALECT STUDIES

By J. A. SHEARD

THE subject of dialect has been very much to the fore in linguistic circles in recent years, especially so far as Romance languages are concerned, and also among non-specialists, where there is still some conflict about the position of dialect. Recently on the radio a school-mistress condemned the use of dialect—she even called dialects “dead languages”—and an article in *The Times Educational Supplement* recently pleaded for bilingualism on the grounds that dialect is a handicap socially and in business. This would make interesting reading for the prosperous industrialist of Yorkshire or Lancashire, and serves to show how necessary it is to qualify such a statement, which is true only of an area where dialect is not strong, and where it is looked upon as something inferior. It will, therefore, perhaps not be out of place at this moment to examine the value and problems of dialect study, and to raise the question of dialect geography and dialect atlases for England. In this article I propose to deal with these points in the light of the experience gained in my own field-work, and to illustrate the points by reference to a particular Yorkshire dialect against its general Northern background.

The value of dialect study hardly needs to be stressed: its chief value is perhaps its use to future students. One of the essential points contained in what may be called the manifesto of the Neo-grammarians was that investigation of dialect, of the living vernaculars, should be undertaken, with a view to arriving at a more precise understanding of human speech, and receiving new enlightenment on the nature of language. To elaborate on this point I suggest that we need only consider how much more exact our knowledge of the earlier stages of our language would be had all Middle English dialects been accurately recorded and charted so

that we had, for example, precise knowledge of the development of M.E. \bar{o} in the north, the formation of new diphthongs, with the date of each change and the area in which it took place, or when and where the lengthening of short vowels took place before certain consonant groups. Again, much of the haziness of our knowledge of Early Modern English sound-changes could be cleared up if we had available carefully-edited works of dialect grammarians. Nor is the information to be obtained merely a question of sounds, for dialect publications and material generally could give us valuable information about the date of acquisition of new words. But if the material for the Early Modern English period is scanty for the literary language, it is almost non-existent for dialects. It may be that present-day speech will be as interesting to students of the future as Middle English or Early Modern English is to students now, and therefore we should see that they have adequate records of all shades of our speech. Then again, the results of a close examination of present-day speech, after verification under all conditions, allow us to draw general conclusions on language as a whole, and help us to understand the linguistic conditions governing the development of earlier stages of the language, otherwise accessible to us only in written records. Dialects, when pure, show phonological laws working unfettered by fashion and literary convention, and for that reason the general principles of the growth of language are best learnt from living popular dialects. Dialects also represent stages of development through which the literary language has passed, and retain forms lost by the latter. Moreover, the dialects have, in many cases, kept apart sounds which have fallen together in the literary language, and so are valuable for etymological reasons: for example, Modern English confuses O.E. \bar{a} and O.E. o lengthened in an open syllable, but the two sounds are kept apart in many modern dialects. But the work is urgent, for education, broadcast speech, and, above all, easier means of inter-communication, are rapidly breaking down dialect.

The first question to be considered is that of some of the

problems facing the dialect-worker, particularly those which have arisen as a result of the work of what may be called the Neo-linguist School. A full account of the differences between the Neo-grammarians, or the Jung-grammatiker, and the Neo-linguists would be out of place here; it is sufficient to remark that there is obviously much to be said for both, and much will undoubtedly be said before the matter is finally settled. Though the Neo-grammarians are taken to task by the Neo-linguists for their strict adherence to sound-laws, the Neo-linguists seem to have their own laws, equally strict. The methods are, in my opinion, really complementary, for both have their advantages, and their uses under varying conditions. A glossary can obviously give more information about the meaning and use of individual words than can an atlas, but the latter shows the words in relation to other words and equivalents in neighbouring areas, and may put forward, and even solve, problems not suggested by the glossary. If this is true of the study of the words themselves, it is perhaps even more so of the individual sounds making up the words. If it be argued against the old method that glossaries isolate words, then if a comparative grammar be provided alongside the glossary of each area, this would relate the words to one another. Perhaps the ideal method would be to produce a glossary and comparative grammar for each area, and then use this to prepare a general atlas. It seems that unless we have accurate records of the dialects taken at all stages by the methods of the Neo-linguists we must make use of the methods of the Neo-grammarians, for the historical method becomes a necessity when we are dealing with the development of a dialect over a long period of time, and where we are dealing with related dialects the comparative method of the Neo-grammarians is essential.

Mention of the historical method raises the question of the starting-point of the investigation: shall it be the modern dialect or, let us say, Middle English—for with our present limited knowledge of the precise areas in which even the four main dialects of Old English were spoken it is not practicable

to begin as far back as that period. Here much depends on the amount and reliability of the early material. If there is sufficient trustworthy material over the whole period covered by the investigation it would seem better to start at the beginning and work forward, thus following the actual development, but such material is very scanty and I doubt if any dialect could produce unbroken records. I think myself very fortunate in the amount of early material I have been able to find for one particular Northern dialect, and even that leaves large gaps. In any case, as I hope to show in the course of this article, there are many difficulties involved in handling written dialect material. My own method has been to record the modern dialect, and then connect it as far as possible with earlier accounts and records, and so give as complete a picture as possible of its development. The method is an attempt to bridge the gap between the Neo-grammarians and the Neo-linguists, for I have carried out the preliminary investigation on the lines of the Neo-linguists, though with perhaps greater attention to sounds than they would like, and then I have attempted to reduce the material to order by handling it according to the methods of the Neo-grammarians. No map has been prepared for the area, as it is small and rather self-contained, but I hope later to prepare maps of this and the neighbouring areas.

The next problem which arises is whether the emphasis should be on phonology or vocabulary, or, to put it in other words, should we look for sounds, as components of words, or the words themselves? In an investigation of a small area the two may fall together, but I think that they need to be kept apart for larger areas, for I know from experience that sound-areas and word-areas would not correspond: for example, the general vocabulary of the West Riding probably does not differ much from area to area, but there are well-defined differences so far as the sounds are concerned. The whole problem and its solution are conditioned by the area of the investigation, but it seems to me better to concentrate chiefly on sounds, as being basically more important than

words, especially as the same sound occurs in many different words, and may even be affected by its position relative to other vowels or consonants in the word. Again, many words common to two or more dialects vary in pronunciation in the different dialects, and surely the phonological development is at least as important as the actual words, for here we have examples of a word itself undergoing change in pronunciation as between different areas.

The following, I think, are the chief points to be considered in phonological investigation :—

- (a) sounds, originally distinct, but now fallen together in Standard English, which the dialect keeps apart.
- (b) conversely, sounds which are kept apart in Standard English, but which have fallen together in the dialect.
- (c) dialect variants from Standard English sounds, particularly developments in Standard English which have not taken place in the dialects, as, perhaps, short vowels in the dialects before consonant-groups which have caused lengthening in Standard English.
- (d) establishment of earliest dates for dialect variants and forms, especially perhaps for unusual diphthongs, and the possible history of the diphthong development where it can be ascertained.
- (e) identification of prominent foreign elements in the dialect.

If we consider the question from the point of view of vocabulary, we find several distinct methods of approach. Dialect adoption of words from the cultural centre—and perhaps consequent change of sound by analogy, which introduces once more the question of phonology—is one aspect of the question. Dialect retention of words lost by the cultural centre, and reasons for this where they can be ascertained, are also important. Change in the semantic development of words found in both Standard English and the dialect, but with different meanings, is even more important. Finally there is perhaps the most important aspect of dialect study from the point of view of vocabulary,

what may be called "local vocabulary", often connected with basic occupations of the area, sometimes containing words which have never been in Standard English, and therefore of extreme importance, especially if foreign influence can be proved linguistically or historically. Trade terms are a fruitful field of study. All this is, of course, study on the lines of the Neo-linguists.

In addition to phonology and vocabulary, there arises the question of stress, both sentence-stress, with which is allied intonation, and word-stress. My own feeling is that an investigation of a dialect should include a study of intonation, covering not only pitch, but actual voice-production. Many dialect areas have their own peculiar method of speech, and I know that to a person from the East Riding the speech of West Riding people is harsh and grating, and countryfolk, at any rate in the West Riding, usually speak more slowly than townspeople. Pitch is not always easy to differentiate, apart from exceptional cases, as, for example, the "singing" of the Tynesider. Word-stress is often an interesting feature of dialects, and many words are pronounced with change of stress, as the words [kɒntré·əri] and [agrəvé:t] in the West Riding. The reasons for this change of stress, or it may be retention of original stress where Received Standard has changed, should be of interest, especially if it can be supported by historical evidence.

A further problem which arises—and this goes to the very root of the question—is whether dialect areas do exist at all. Many arguments have been put forward within the last few years, some maintaining that dialect areas do exist, but many more denying their existence. Whatever may be the position on the Continent, there can be no doubt of the existence of dialect areas, with more or less sharply-defined boundaries, in this country. Examination of the modern Yorkshire dialects in general reveals the existence of a "Great Divide", which may be defined roughly as follows: from Doncaster to the head of the Humber Estuary, then up the Ouse to its confluence with the Wharfe, along the Wharfe to

Addingham, then due west to strike the Aire about Keighley or Skipton, and so across into Lancashire. North and east of this line the dialect differs in at least three important sounds from the dialect south and west of the line. Again, as another example of dialect areas, in the dialect of Calderdale in the West Riding there are at least two important sounds with very different pronunciation in the upper and lower parts of the valley, and the dividing line is quite sharp. Ellis divided the West Riding into nine separate dialect areas. The dialects in the West Riding are still divergent, though not to the same extent as in his time, thus providing a sharp contrast with the North and East Ridings, where one dialect is spread over a large area, but the reason for this difference is not far to seek. In the agricultural North and East Ridings there is continual change of population within the area, and often a great number of people migrate from district to district at the annual hirings. This constant inter-communication has naturally produced a standard dialect in an area in which there are practically no natural boundaries. It has been suggested that dialect boundaries are not always topographical, and the determining factors may be rather political and administrative than physical. There are certainly no natural boundaries in the case of Calderdale, and I know of no important political or administrative boundaries either. Further, the Pennines have not prevented what is apparently primarily a Lancashire characteristic—the use of [θ] or [ð] for the definite article—from penetrating into the upper valley of the Calder, but the lower valley has the regular Yorkshire form—the “suspended T”. In this case the division is not quite the same as for the two sounds previously mentioned. The conditioning factors for dialect boundaries are perhaps the independent character of the dialect speakers, and, more important, means of inter-communication. In the area I have just mentioned there is quite definitely an independent attitude, and I believe some of the older people take a pride in the differences which their dialect shows, and certainly often refer to the “foreign” elements in the neighbouring

dialects by imitating them when referring to people from those areas. For example, people from the lower valley refer to those of the upper valley as [jɑ:saidəz], because of the latter's pronunciation of the word "our". ("Our side" means "our people".) This independent attitude is often found among the wealthy manufacturers, who persist in and even take a pride in using dialect, though their womenfolk tend to use Received Standard, or a Northern form of it. So far as ease of inter-communication is concerned, in the West Riding the division of the land into dales resulted in the formation of separate communities which, until recently, have had no real need for inter-communication, and, as a result, people of one valley differ from those of the next in the pronunciation of some sounds, though they agree in the pronunciation of most. This difference may arise even in the same valley, as in the case, just mentioned, of the upper and lower valleys of the Calder. Now that travel is so much easier, and young people often travel some ten or twenty miles each day to work, these differences are rapidly disappearing among the younger generation, and eventually we shall probably get a more or less uniform West Riding dialect.

The question of dialect boundaries is more important for sounds than for words in this area, and if vocabulary alone were to be considered one would be inclined to agree with those who say that dialect boundaries do not exist, at any rate for such a small and comparatively self-contained area, but the statement is certainly not true for sounds, and needs to be modified to some extent even for vocabulary when one takes into account the specialised vocabulary of the trades of the area.

To sum up on the problems dealt with so far, problems arising chiefly out of the differences between the Neo-grammarians and the Neo-linguists, the present state of dialect study, in this country at any rate, would suggest that all differences between the two schools should be regarded as of secondary importance, particularly if they are likely

to hinder the collection of dialect material. It is much better to leave argument on principles, and get down to recording the dialect which still exists, before it is too late. The question of recording the dialects before they disappear is the one really urgent problem in this field. Once the raw material has been gathered, the secure foundation on which alone either school may base its theories, the method of treatment and the conclusions to be drawn from it may come later—but the collection of the material cannot. If an investigator decides to work on the principles of the Neo-grammarians, does it matter very much what laws he formulates or what conclusions he draws? The important thing is that he should collect the material, then the Neo-linguist may, if he likes, use the material and draw his own conclusions from it, or the Neo-grammarians may formulate laws from the material gathered by the Neo-linguist. The collection of the dialect is the main thing at the moment.

Reference has been made to dialect publications and written dialect material in general, and attention called to the fact that it is extremely difficult to deal with this on phonological lines. In the case of the West Yorkshire dialects, with which I am most familiar, modern dialect literature dates mainly from about the last quarter of last century; comparatively little of the Yorkshire dialect has survived from the eighteenth century, with the exception of one or two glossaries. Many local dialect publications appeared during the latter half of the nineteenth century, and the Yorkshire Dialect Society has published a fairly complete bibliography. Interest in these lies rather in the matter and vocabulary than in the accurate record of dialect sounds. Ellis remarked that they were "neither accurate enough nor local enough to be of service". Apart from the fact that they may not really represent the local dialect, the lack of agreement in the spellings of similar words often makes it impossible to decide what sound the writer intends to represent. In an address to the Yorkshire Dialect Society in 1927 Mr. J. Fairfax Blakeborough referred to "the fearsome manner in

which even some knowledgeable Yorkshire folk often write their dialect". This problem is now being tackled, at least so far as the Yorkshire dialect is concerned, for the Yorkshire Dialect Society is at the moment engaged upon an attempt to formulate a standard orthography for all its dialect writers, and if this can be managed it would be a tremendous step forward from the point of view of the investigator of dialect phonology. One would imagine that with such a plentiful supply of literature as we now have written in the Yorkshire dialects, produced by people who speak the dialects, it would not be difficult to present a complete picture of the various dialects from the written material available. The main difficulty, as I have said, is that one can never be sure what sound the writer is trying to represent, and, to make matters worse, in many cases the writer may not be a native of the area, and so may make use of words or sounds from his own area which are not found in the area the dialect of which he purports to write. With this proviso, that we may find words not properly belonging to the area in question, these publications can often be very useful from the point of view of vocabulary. So far as sounds are concerned, there is much more difficulty, particularly as regards orthography. Yet, in spite of what Ellis said, I am sure that some results can be achieved by an investigator who is really familiar with the dialect, as I hope to show by examples later in this paper.

The last problem to be raised is that of the investigator himself, and the methods he is to use. The ideal observer is the native dialect speaker who has had the necessary training in phonetics to enable him to record with absolute accuracy all details of the existing pronunciation. A complete training in linguistics is not essential, and may even be a handicap if the observer brings to his task pre-conceived theories which may affect what he records. There can be no doubt that the observer who is able himself to use the dialect will obtain far more satisfactory results than the outside observer—and I say this without in any way wishing to reflect upon dialect research carried out in this country by a few foreign

scholars. The first stage in the decay of a dialect, that at which the speaker becomes dialect-conscious, has been reached in most of our dialects, and I have myself noticed a change come over the speech of a native when he converses with someone using Received Standard. If this is the case with the outside Englishman, one can imagine that the foreigner is likely to be still more handicapped. I know that the method of using an outside observer speaking the standard speech of the country has been used by many investigators, including Gilliéron, though other investigators have in recent years insisted on their observers living for some considerable time in the area, but even this method does not entirely remove the difficulty. If the investigator is unable to cover the ground himself, the other method open to him is to obtain the records through some native of the area, and this he must do usually by means of a list of questions, which are to be put to the dialect speaker, and the answers recorded. The obvious difficulty is that if the dialect speaker is at all conscious of his dialect the results of such a "question and answer" method will not be a record of natural dialect, even if the chosen observer has the necessary training, which is not always the case. Ellis adopted this method for his phonological investigation of the dialects, and made some serious mistakes in the area with which I am familiar. Apart from his remarks on the particular area which I have investigated, and with which I shall deal later, the following two comments show how misleading such a method can be. Of Ellis's remarks on the Windhill area Wright says: "If his rendering of the dialect test of other dialect speakers is as inaccurate as that of the Windhill dialect, the value of these tests for phonetic and philological purposes is not very great," and it must be remembered that Wright really did know his own dialect. Again, in an address to the Yorkshire Dialect Society in 1903 the following remarks were made: "I have gone over a part of Mr. Ellis's work, to which I have referred extensively, along with a friend, who knows some of the dialects accurately, and he discovers in it many defects and

errors. I myself can speak with confidence of at least one of these dialects, and I am bound to say that the representation of its various sounds is far from perfect." In quoting these two remarks, and commenting later on the work of Ellis in the Calderdale area, I wish to make it quite clear that what I have to say is not directed against Ellis himself, but against the method he used. In most cases the observer may not be fully-trained in his work—and I think we should find great difficulty in obtaining for each area an observer who is not only a dialect speaker, but who is perfectly familiar with phonetics and linguistics generally—and, as I have already shown, the method of stereotyped questions and answers makes it almost certain that we shall not have the dialect spoken naturally. In my opinion the only method is for the trained investigator to carry out the method of patient listening to the dialect speakers when they are mixing freely with one another, and speaking naturally. I have gathered most of my information in the bars of inns and at such gatherings as local football matches. In this way only can we get the real dialect under natural conditions, for unless the speakers are unconscious of the presence of the investigator there will be some awkwardness.

We now come to consider what the investigator is to record. The mere presentation of a dialect in the form of an accurately-transcribed phonetic glossary is not sufficient. Words which are peculiar either in form or meaning must be noted and classified, and an attempt made to explain the apparently abnormal development. In addition, the dialect must be viewed as a living language, which has a history of its own, and the investigator must attempt to trace the laws of its internal development, isolate the influences which have in any way modified the dialect from outside, and examine the intensity of these upon the dialect. He must also examine the phonetic and grammatical structure of the dialect in every period for which adequate material is available, and, finally, the local boundaries of all the various sounds must be charted as accurately as possible. A reliable treatment

of the phonology of the dialect is the investigator's first duty, and this must be based, first and foremost, upon an accurate analysis of the existing pronunciation, and, secondly, upon an examination of the spellings of earlier documents, in so far as these can be relied upon to reflect the current pronunciation of their period.

In order to present an adequate record from the point of view of vocabulary the observer should record every word he hears which varies in any way from the usage of the literary language, and not merely record words which are archaic. A dialect is not like a dead language, with a fixed vocabulary and invariable rules of accidence and syntax. However strong the forces of conservatism may be—and they are very strong in the case of dialects—they cannot prevent the gradual decay and renewal which always go on side by side in a living language. Words are being lost rapidly, so rapidly that many in regular use at the end of last century are quite meaningless to the younger generation to-day, and, in order to present a complete historical record, such words should be included, where they can be authenticated. But, on the other hand, new words are being acquired even more rapidly, and it is probable that in fifty years' time such words as "celluloid", "chromium", and "garage", now regularly used by many dialect speakers, will be quite as common in the dialect as "cloth", "iron", and "plough" now are. In addition, the admission of such words into the dialect vocabulary gives an excellent picture of the working of the forces of analogy. A typical example occurs in the word "chromium" mentioned above, which appears in the dialect as [krʊəmɪəm], the vowel of the first syllable having been diphthongized, by analogy with words such as [bʊən]—bone. The dialect is rich in words which, as a result of the Industrial Revolution, have been borrowed at a comparatively late period, and in all these words the forces of analogy are seen at work. This working of analogy raises some fascinating points, and the particular example just quoted is interesting. Corresponding to Received Standard [ou] the dialect has

two forms, [uə] and [ɔɪ], generally arising from two distinct sources in Middle English. New borrowings of words containing this Received Standard vowel invariably go to [uə], no matter what the source of the original vowel. And some words which usually have [ɔɪ] are occasionally heard with [uə] now. What is the reason? Is it that the [uə] forms are more common, and therefore have more influence, or is this diphthong more natural to the dialect, which seems to have a tendency to over-rounding? The problem is fascinating, but its solution is far from easy. Kökeritz, in his account of the dialect of Suffolk, sums up the position so far as material to be sought is concerned when he says that the duty of the dialect investigator is "to paint a true and faithful picture of the dialect as now spoken, not to give an idealized and beautifully retouched photograph of the speech habits of very old people, to the exclusion of the younger generations. For it is the vacillation between the vernacular pronunciation on the one hand and Standard English on the other that produces the intermediate shades of sound which characterize the modern dialect and are of very great interest for its future history. Moreover, these variants may to some extent reflect the struggle for supremacy that must have been going on in Early New English between the dialects and the incipient Standard Language".

Having gathered this material, the investigator must now consider the conclusions to be drawn from it, and, possibly, the preparation of dialect maps. The first point has already been dealt with, and the second leads us to the question of dialect geography and the preparation of dialect maps in this country. Here we are far behind the Continent, at least that part of the Continent where the Romance languages prevail, and much remains to be done. Admittedly, English dialects have not been so thoroughly investigated as have those of the Romance languages, but much has been done, and there is no reason why, provided the necessary support is forthcoming, the remaining work should not be carried out quickly, before it is too late. We have, of course, the publica-

tions of the English Dialect Society, covering a large part of the country, and there are also many individual studies, such as those of Ellis, previously mentioned, Wright (Windhill), Kjederqvist (Pewsey, Wilts), Hargreaves (Adlington), Hirst (Kendal), Kruisinga (West Somerset), Brilioth (Lorton), Klein (Stokesley), Cowling (Hackness), Reaney (Penrith), Haigh (Huddersfield), Kökeritz (Suffolk), Orton (South Durham), Lamprecht (South-West Yorkshire), and Müller and Borgis (South-East Yorkshire and North Durham). If these could be examined, and the information they contain co-ordinated, it might be possible to produce atlases on the basis of both phonology and vocabulary. Obviously much needs still to be done, for many areas, some, such as boundary-areas, important, have not yet been covered, and presumably some of the works mentioned above would have to be brought up to date, for it would obviously be useless to include material gathered in one area in, say, 1880 in the same map as material gathered in 1940. I may add that the above list is purely by way of example, and is not necessarily complete.

I have done some preliminary work of this nature myself, but here I speak at some disadvantage, for I am really familiar with only two or three of the South-West Yorkshire dialects, though I have some knowledge of certain Midland and Southern dialects also, so I shall base my remarks here on my own experiences in field-work up to date, and my own plans for a dialect-atlas for the West Riding of Yorkshire. In passing I may say that the dialect-atlas is only one part of the work I have in mind; the chief part will be a glossary and a comprehensive comparative grammar.

The West Riding is a complex area from the dialect point of view. As I have said, Ellis divided the area into nine dialect-divisions, and it may be that this is a conservative estimate: I have heard the same number mentioned for the Huddersfield district alone. These West Riding dialects were originally all distinct, but urbanization of the country districts and ease of travel has broken down many of the old distinctions. Even then, some of the dialects still show important differences,

especially in the remote country districts. In order to localize these differences I have compiled a list of words which are in common use in all the dialects of the area, and which cover all the principal sounds and combinations in Old and Middle English, from native, Romance, and Scandinavian sources, and I am now at work discovering how these words are pronounced by genuine dialect speakers in all parts of the West Riding, taking information as far as possible from villages and small towns, rather than from larger towns and cities, where pure dialect has largely ceased to exist, owing to admixture. This needs, of course, a tremendous number of contacts, and very fine sifting of material, especially in the areas close to the boundaries of different sound-variants, and I anticipate that it will take a considerable time. By this close investigation of every inhabited area the boundaries of any variant forms will be fixed, and dialect-maps can be prepared for each of the sounds. The investigation will also cover the more important points of accident, such as the occurrence of “-en-plurals” in verb forms, and such general points as the form of the definite article, and the question of how much vocabulary and idiom is common to the whole area and how much is peculiar to particular dialects. I realize that this is not dialect-geography as conducted by Gilliéron and his followers, but the area is so small that there is little scope for an atlas founded purely on vocabulary.

Before going on to illustrate by reference to a particular dialect the points raised earlier, some account is perhaps necessary of my work on that dialect, since the remarks will be based on my own field-work. Any account of my study of West Riding dialects should, strictly speaking, go back to my childhood days, for I have heard the dialects spoken since then, and I lived in the area for the first twenty-seven years of my life, but my investigations really began in 1937, when it was suggested that I should make a detailed study of the dialect in my native area, Lower Calderdale, and present the conclusions as a thesis. Since this thesis was presented I have further developed my study of the Lower Calderdale

dialect, with particular reference to the vocabulary and idiom of certain of the Towneley Plays, and also done some work on the neighbouring dialect of Upper Calderdale, in addition to the comparative grammar of the West Riding dialects upon which I am at present engaged. My work on the Lower Calderdale dialect is now more or less completed, so far as the investigation of a living dialect can ever be said to be completed. The investigation of the dialect of the upper valley has so far been limited to an attempt to define the dialect sounds, or the most important of them, of the middle eighteenth century, as shown in two contemporary records of widely-different character, and to examine them alongside the sounds of the present-day dialect. This work is still incomplete, but I hope eventually to make as thorough an investigation of the dialect of this area as I have done of the lower valley, though the material for the early period is perhaps not so abundant, nor so certain so far as locality is concerned.

I have had the advantage of having heard the dialect, spoken for thirty years or more, and therefore the collection of forms has been greatly simplified, for I was perfectly familiar with many of them, and did not need to search for them. Over such a lengthy period many variant pronunciations have been heard, for, as will be seen in the description of the area itself, its peculiar geographical position renders it particularly liable to the influence of other dialects. I have tried to cover all types of dialect speakers in obtaining my material. Just as there are three generations of speakers, the old, the middle-aged, and children, so there are three distinct types of dialect, but the third tends to show greater divergence from the second than does the second from the first. During the course of my investigations I have paid particular attention to older speakers, people of from fifty to seventy years of age, as representing the least degenerate form of the dialect. The chief influences which tend to break down dialect are education, literary tradition, authority of the standard spoken language, and perhaps wireless speech.

Older people in the area are practically unaffected by any of these, and this is especially true in the country districts, where the purest form of dialect is spoken. Such older speakers use many words which are not now used by the second class, whose ages may be taken as between thirty and fifty, though the words may be quite intelligible to them. So far as they are concerned the decay in dialect is represented by loss of vocabulary, not by sound changes. They have been influenced by the earlier, and perhaps less systematized, efforts made by the schools to stamp out dialect. The effect of the influences is seen more clearly in the third group, who have had the benefit of more intensive education, and have managed to scramble up the first few rungs of the educational ladder, which leads to literary tradition and Received Standard pronunciation. As yet the result has been only to produce a bilingual population, even amongst those still at school, for in most cases the local form of Received Standard, carefully used in school and with strangers, is shed when these surroundings are left behind. On the other hand, many parents now attempt to impose some form of standard pronunciation on their children, owing to the fact that they have themselves become dialect-conscious, and so, as opportunities for the free use of dialect become less frequent, the true dialect will disappear. But for the time being there are undoubtedly three distinct types to study, and I am sure that each type should be recorded, as showing stages in the decay of dialect.

Before dealing with the dialect itself, as illustration of the remarks made earlier, some account is necessary of the area, its boundaries, and its history, with some details of material available for the dialect investigator. Considering the West Riding as a whole, one can have no doubt of the antiquity of its records, and the area of Lower Calderdale, and, in particular, Dewsbury, Wakefield, and Thornhill, is rich in such records. The Parish Church of Dewsbury celebrated its thirteenth-hundredth anniversary in 1927, and legend tells that Paulinus preached there, on the banks of the Calder, in 627. Almost a quarter of the pre-Norman carved stones

to be found in the West Riding are in the parish churches of Dewsbury and Thornhill. The presence of so many remains, many of which are Anglian and some carved in runic characters, points to communities of some size in the Anglo-Saxon period. The Wakefield Court Rolls of the thirteenth and fourteenth centuries present a fairly complete picture of the area at that time. The area covered by my investigation extends from Mirfield in the west to Wakefield in the east, and includes all the towns and villages in the compact manufacturing unit known as the Heavy Woollen District, with its centre at Dewsbury. There are no natural boundaries within the area, occupying as it does the fairly-wide lower valley of the River Calder, and it is very easy to get from one part of the area to any other. The outlying villages are becoming more and more mere suburbs of the towns, and this tendency has been increased in recent years by the building of large municipal housing-estates in the agricultural areas surrounding the towns, so that a large urban area has grown up, and this is tending to destroy the finer shades of difference in pronunciation which formerly characterized the speech of different towns and villages. The district is in an interesting position from the dialect point of view, for it is situated rather like the hub of a wheel, with the other dialect-areas of the West Riding all round it, and, as these other dialect-areas are in close contact with it, the area is particularly liable to assimilate variant forms from these dialects, which makes the work of an investigator who is not perfectly familiar with the speech of the whole West Riding area extremely difficult.

As regards material for the investigator in the early periods, there is not much of value in the very early period, for although the Rushworth Gloss almost certainly belongs to this area I feel that it is doubtful if it reflects any of the idiom of the area: indeed its very nature precludes the use of idiom. It also shows very little Scandinavian influence, and, to judge by present-day standards, the everyday speech of the people must have contained many more Scandinavian words than we find in that text. In the middle period we have a text,

the Towneley Plays, which almost certainly belongs to the immediate neighbourhood, as may be seen from two or three probable local allusions. Certain of these plays have been distinguished from the rest by some critics as being perhaps of a particularly local nature, and it is my own opinion that a close study of these particular plays would throw light on idiom of the time which would correspond closely with modern dialect idiom, and I am engaged on such a study at the present time. This text, and other fifteenth-century texts which show some association with the area, contain many more Scandinavian words than we find in the early text, so perhaps the blending had been completed in the literary language by that time. At any rate the speech of the West Riding had assumed definite characteristics by the fifteenth century, and certain of the Towneley Plays probably reflect the idiom of the everyday speech of the people. The last period is one of decadence, and the replacement, so far as writings are concerned, by the literary language. In the seventeenth century there are two important poems, and also Ray's "Collection of Northern Words" (1674 and 1691), increased later by Thoresby in 1703, but these do not refer specifically to this area, although they give some idea of the form and vocabulary of the Yorkshire dialect as a whole, as does also the East Riding "Rural Economy of Yorkshire" (1641). We have an interesting pair of records from the eighteenth century: in 1775 the Rev. John Watson published "The History and Antiquities of the Parish of Halifax in Yorkshire", and included in this volume is a chapter entitled "Remarks on the dialect of Halifax Parish". The first part comprises seventeen "Rules for Pronunciation", and this is followed by a list of words which evidently struck the writer as being unusual either from the point of view of pronunciation, or because they were not in common use in other parts of the country. The "Rules for Pronunciation" provide information on differences of sounds which are still to be found in the modern area, and Watson's descriptions of variations from the sounds of standard speech are borne out by two

dialect letters which appeared in the "Halifax Union Journal" in 1759, and were reprinted in 1836 in "A Concise History of the Parish and Vicarage of Halifax in the County of York, by John Crabtree, Gent." The letters are the usual type of dialect writing, but I think they are important as showing certain evidence for a number of dialect sounds which are of interest in view of what we find in the modern dialect. Both these records refer to the upper valley of the Calder, but the two areas have many dialect features in common, and characteristics of the dialect of the lower valley are shown in this material. These two records appear as an appendix at the end of this article, and reference will be made to them in the course of the remarks on dialect phonology. Many local dialect publications appeared in the latter part of the nineteenth century, but, as I have already said, they are of interest rather from the point of view of matter and vocabulary than for their phonological value. Some information on phonological questions may be obtained from them, however, and illustrative words have been gathered from one publication, "The Dewsbre Back at Mooiin Olmenac an T'West Riding Historical Calendar for t'year 1869," and also appear as an appendix. So far as can be ascertained from the form of words which appear repeatedly in the publications printed in the different towns of the area, there seems to have been little variation in pronunciation in the areas of Dewsbury, Wakefield, Batley, Morley, Mirfield, and Heckmondwike round about 1870, but, as has already been pointed out, care must be exercised in attaching importance to such investigations, especially when one cannot be sure that the writer is a native of the area.

I now come to an account of the main points of the phonology of the dialect, considered on the lines of what I have suggested the investigator should look for. Many points must, of course, be omitted in such a short account as can be given here, but I hope that, when my full account of the investigation comes to be published, all these will be treated at length.

The West Riding is really a Midland area, or rather, as Ellis said, Eastern North Midland. My own feeling is that the dialect had originally more Northern characteristics than it has now, and that the Midland influence began to make itself felt at the time of the Industrial Revolution. This Midland influence, so noticeable south and west of the "Divide" previously mentioned, may be due to the influx of textile workers at the time of the Industrial Revolution, or even before. These came chiefly from the Midlands and Cheshire in the first place, and so mixed their Midland speech with the typically-Northern speech of the farming population, who probably spoke much as the inhabitants of the North and East Ridings speak to-day. These industrial workers were perhaps quicker-witted and more vigorous than the agricultural population, and so their speech became the predominant feature of the dialect of the area, in so far as it differed from the original Northern dialect. If an examination of the forms found in Watson and the two dialect letters do not show the Midland characteristics which are now present, then we may feel fairly sure that this is so. I am at present going through these records, dealing with each sound in detail, and hope to be able to clear up this point in the near future. But many Northern characteristics still remain, as, for example, the form [plu] where we should expect [pla:], the forms [nit]—night, [lit]—light, [brit]—bright, all purely Northern forms, alongside the Midland diphthongized forms [fɛɪt]—fight, [rɛɪt]—right, and the preterites of the Old English Class I strong verbs, such as [rɛ:d]—rode, [rɛ:z]—rose, and [rɛ:t]—wrote, which are again Northern.

When we come to consider the dialect of Lower Calderdale alongside other Northern dialects we find many features that are common to all Northern dialects. The chief of these are :—

(1) The regular use of [u] where Received Standard has [ʌ], as in [butə]—butter, [dʌst]—dust, [sʌk]—suck.

(2) The use of a vowel very near to Cardinal Vowel No. 4 in native, Scandinavian, and Romance words alike, where Received Standard has [æ].

(3) The use of [a] and [ɒ] in the original short form before -s, -f, and -th, where Received Standard has lengthened the vowel. Examples are : [bras]—brass, [kasl]—castle, [kraft]—craft, [baθ]—bath, [paθ]—path, [frɔst]—frost, [lɔst]—lost, [sɔft]—soft, [brɔθ]—broth, [frɔθ]—froth.

(4) The retention of [ɪ] and [ʊ], corresponding to the original short vowel, before consonant groups which have caused lengthening. There is some confusion in this group, and it is treated at greater length below.

(5) The lack of [e:], for which the dialect always has [ɛ:], and the scarcity of [ou]. When the latter does occur the first element of the diphthong is more open than in Received Standard, and the second element is stronger and more rounded, so that it has almost the effect of a final -w.

(6) The use of [u] where Received Standard has [ʊ] in such words as [luk]—look, [buk]—book, [kuk]—cook, and even, among older speakers, such a form as [wul]—wool, and [pul]—pull. (Cf. the form “poolers” in the second dialect letter.)

(7) M.E. a remains unrounded after w-, as in [wandə]—wander, [swan]—swan, [wat]—what. M.E. a + r is similarly unrounded, as in [swa:θ]—rind, [wa:n]—warn, [wa:p]—warp.

So far as sounds are concerned which are kept apart in the dialect, but have fallen together in Standard English, the two most important examples are to be found in Received Standard [i] and [ou].

Examination of the first sound reveals that in the dialect M.E. ē has generally become [iə], as in [tliən]—clean, [diəl]—deal, and [liəst]—least, but the same vowel has sometimes become [ɛɪ], as in [bleɪtʃ]—bleach, and [tɛɪtʃ]—teach. M.E. ē < O.E. ēa has developed to [iə], as in [biəm]—beam, [siəm]—seam, fat, and [diəθ]—death, but M.E. ē which developed from O.E. e lengthened in an open syllable has usually become [ɛɪ], as in [biəd]—bead, [ɛɪt]—eat, and [mi:t]—meat. There is a certain amount of confusion due to our finding [ɛɪ] where we should normally, according to the regular dialect development, expect [iə], and I can only put this down to the workings

of analogy, though I realize that this is not a satisfactory explanation, but it is at least interesting to find the dialect keeping apart, and apparently in a fairly regular manner, sounds which have fallen together in Standard English. This sound is apparently the one referred to by Watson in the first part of his Rule 3d (see Appendix A), and the words "tea" and "flea" still have the pronunciation he gives. There is only one certain confirmation in the dialect letters (see Appendix B), the form "deool" for "deal", but we have definite evidence for this sound in dialect publications, for there can, to my mind, be no doubt that this diphthong is indicated when we find such spellings as "breath"—breath, "dreeded"—dreaded, "steeam"—steam, "deead"—dead, alongside such forms as "eit"—eat, "meit"—meat, "speik"—speak, "steil"—steal, "weiver"—weaver. (See Appendix C, sections f and g.) Perhaps the most interesting word in this group is "meal", which has the pronunciation [mɪəl]—meal, repast, but [mɛɪl]—ground grain, as in [ʊətmeɪl]—oatmeal.

M.E. \bar{o} < O.E. \bar{a} , a development found south of the Humber, and therefore perhaps due to Midland influence, has regularly become [ʊə] in the dialect, as in [brʊəd]—broad, [bʊən]—bone, [grʊən]—groan, [dʊəf]—dough. This is an example of over-rounding and diphthongization, and it is difficult to know which came first, though eighteenth and nineteenth century spellings with "-oa-" may perhaps suggest that the sound was first diphthongized and then over-rounded. Later the over-rounding was carried to the final stage, and we find such forms as [wɔm]—home, and [wɔl]—whole, common in the modern dialect. It is worthy of note that Watson does not mention this sound, except perhaps in the form "nooa" (Rule 3d), and I think it reasonably safe to infer that the sound was not then found in his dialect, or he would surely have mentioned it. Indeed in his Rule 2d he excepts words such as "goat" and "boat" from that Rule without any suggestion that they have an unusual pronunciation. There is no indication of the sound in the dialect letters either.

On the other hand, we have again, I think, definite evidence of the sound in some spellings in dialect publications of the nineteenth century, as "booaat"—boat, "dooaaf"—dough, "looads"—loads, "rooad"—road (see Appendix C section a), alongside "groape"—grope, and "roape"—rope, which may possibly represent the diphthong before over-rounding took place. The whole position suggests to me that this Midland influence is a direct result of the influx of Midland workers during the Industrial Revolution, though it is not possible to be certain in the absence of information about the sound in the sixteenth and early seventeenth centuries.

On the other hand M.E. \bar{o} < O.E. o lengthened in an open syllable has become [ɔɪ] in the dialect, as in [fɔɪl]—foal, [kɔɪl]—coal, [ɔɪl]—hole. There are numerous forms which have the diphthong [ʊə], but in most cases I think that this can be traced to the influence of other dialects around the area, and the general development is certainly to [ɔɪ]. This is apparently the sound to which Watson refers in his Rule 2d, although the dialect letters have only one form, "coyt"—coat, which bears out this Rule. It will be seen that in this Rule Watson excepts words such as "boat" and "goat", which come under the type dealt with above. His exceptions are due to the fact that he did not realize that all his examples did not arise from the same sound in Old English: the majority of them are developed from O.E. \bar{a} . The modern dialect confirms Watson's examples, with the exception of those just mentioned, and the form "noite" (and also "notice" in the dialect letters). In these two forms the modern dialect has [ʊə]. In his Rule 10th Watson mentions other examples of this sound in "cloise" and "loise", and here his remarks are confirmed by the dialect letters, as in "loize", and the modern dialect also agrees, but there are many examples of analogical levelling in this class of words. The occurrence of the sound in the modern dialect is again proved by spellings in dialect publications, such as "coil"—coal, "hoyle"—hole, "cloise"—close, field, "throat"—throat. (See Appendix C section b.)

One particular dialect characteristic should be mentioned here, though it is not a development from M.E. \bar{o} . In the preterite singular and plural of Old English Class I strong verbs the usual dialect form is [ɛ:]. This is the normal dialect development of M.E. \bar{a} , and suggests that this Northern characteristic remained in the dialect in this case only. It will be noted that Watson excepted these forms in his Rule 2d, and a form "rade" found in a dialect publication (see Appendix C section c) bears out this sound in the modern dialect.

An interesting variant from Received Standard is found in the development of M.E. \bar{o} , which has regularly become [ʊ] in the dialect, as in [spʊm]—spoon, [fʊt]—foot, [sʊn]—soon, [gʊs]—goose. Watson deals with this sound at some length in his Rule 1st, and the modern dialect agrees in almost all the forms which Watson gives, with the probable exception of "booiik", which I have never heard, and the forms "blooid", "hooid", and "mooid" are not very common except among very old dialect speakers. The Rule is borne out by a few spellings in the dialect letters, and his note on the variation in the western parts of the parish is borne out by forms such as "shoiieters" and "soynn". So far as I have been able to ascertain this latter sound is not now heard in the dialect, but it has been merged in the [ʊ]-form, apart from one possible form [ʃʊit] = shoot (?), used of a thread in a fabric. Spellings in dialect publications which may be taken as evidence of this sound include "blooidshed", "flooid", "gooise", "mooin", and the place-name "Sooiit-hill". (See Appendix C section d.) The reason for this change is not quite clear, but Northern Middle English often wrote "oi" or "oy" for \bar{o} , and it may be that this is merely a spelling pronunciation. In this case such forms as "shoiter" and "soynn" may represent an earlier form, and the development of [ɔi] to [ʊi] may be another example in the dialect of the process of over-rounding mentioned above.

An interesting survival of an earlier pronunciation is to be found in the dialect pronunciation of words containing

M.E. er/ar from Romance sources. In the case of M.E. er we find that the sound has often remained [a:], as in [ja:bz]—herbs, and [sa:vnt]—servant. But perhaps the most interesting development is that of M.E. ar, and the variation of this sound in certain words. The diphthong [ɛə] is quite common, as in [kwæt]—quart, [kæd]—card, [pæk]—park, alongside equally common forms with [a:], as [ba:gn]—bargain, [ga:dm]—garden, [ma:kit]—market, and [ska:lit]—scarlet. This alternation of [a:] and [ɛə] seems to suggest that the original sound was [a:], and that this was later raised and diphthongized. The normal development of M.E. ar in both native and Romance words is to [a:], but Romance words show a greater tendency to [ɛə] than do native words. Wright, in his treatment of this sound in his "Dialect of Windhill", considered that the two sounds differed in Middle English. He quotes only [ɛə] for the Romance words in the Windhill dialect, Cowling has both [a:] and [ɛə] for the dialect of Hackness, and Reaney quotes only [a:]-forms for the dialect of Penrith in Cumberland, as does Brilioth for the district of Lorton in the same area. Cowling considered that the [ɛə]-forms were borrowed from the fashionable language in the late eighteenth or early nineteenth century. On the other hand, we can show from the evidence of the two dialect letters that M.E. ū, which is heard as [a:] in the dialect of Lower Calderdale, had become [ɛə] in Upper Calderdale, and it may be that this diphthong had passed through the intermediate stage which we still find in the lower valley, and I think that there may be some connection between the development of these two sounds.

In the development of M.E. ū we get divergence between the dialects of the upper and lower valleys. In the lower valley the sound has regularly become [a:], and this is one of the characteristics of the dialect. This sound is quite naturally not mentioned by Watson, nor is it found in the dialect letters, for both of these deal with the upper valley. Examples of this sound are: [a:s]—house, [ta:n]—town, [ka:]—cow, [tla:t]—cloth, clout. Numerous examples of

spellings which illustrate this sound are to be found in the dialect publications, and when one comes across such forms as "braahn"—brown, "caah"—cow, "craahd"—crowd, "daahn"—down, and many others, one can, I think, take it that [a:] is intended, in spite of Ellis's inference referred to below. In the upper valley, as the two letters clearly show, the dialect has developed this sound to either [ɛə] or [ɪʊ], the former diphthong appearing regularly in the Halifax letter, and the latter in the Sowerby Bridge letter. Both these forms were recorded by Ellis, who said that [ɪʊ] was the older form, but that [ɛə] was the dominant form. The latter is now the regular form for both Halifax and Huddersfield, but I believe that the south-western area, around Sowerby Bridge, still has traces of the former sound. In connection with this sound one must question the conclusions of Ellis. He said that the lower valley around Dewsbury had [ɛə], as against [a:] in Leeds and Wakefield, two places further east. "The Dewsbre Back at Mooin Olmenac an' T'West Riding Calendar for t'year 1869" has "hahce"—house, "aht"—out, "rahnd"—round, "abaht"—about, which, to my mind, proves that the dialect had [a:] in 1869. I have not been able to find any dialect speaker in the lower valley who uses this sound, which is, however, recognized as a characteristic of the Huddersfield and Halifax dialects, and I have heard speakers from the lower valley use this diphthong when they were consciously imitating men from the upper valley. So far as this particular sound is concerned, and the statement of Ellis that Dewsbury "is most nearly related to Halifax", Haigh, who has compiled a glossary of the Huddersfield dialect, and who is familiar with the West Riding dialects, speaking to the Yorkshire Dialect Society in 1926, said: "Of these South Yorkshire dialects the most closely related in Grammar, Vocabulary, and Pronunciation to that of Huddersfield are, I think, first Halifax, then Rotherham and Sheffield. The variations are, of course, chiefly in pronunciation, and these begin to be especially noticeable on going north-east towards Dewsbury,

where within five or six miles the dialect vowel development from O.E. *ū*, for example, changes from that of [ɛə] in our dialect to [ah] beyond Ravensthorpe." This remark of a man who is perfectly familiar with the dialects is quoted at some length for three reasons: first, to show how dangerous is the method of investigation adopted by Ellis, secondly, to show that there is no doubt whatsoever of sharply-defined dialect-boundaries in the area, and, thirdly, to stress once again that these boundaries, as Haigh says, are chiefly a matter of pronunciation, and not of vocabulary.

Another interesting point in connection with the phonology of the dialect is one which I am at present investigating in greater detail than can be set out here: it is the question of what light the dialects can throw on the lengthening of short vowels before consonant-groups which are supposed to have regularly caused lengthening. Many of the examples which are usually quoted as illustrating this change have the short vowel in the dialects, and it does not seem reasonable to assume that all these vowels were first lengthened and then shortened again. It is usually extremely difficult to obtain evidence on this point from spellings, as we shall have, for example, the spelling "find" whether the pronunciation is [famd] or [fmd], although a form "finnd" which I have seen in an edition of "The Clock Almanack" seems conclusive. But acquaintance with dialect-speakers soon shows that the short vowel is usual. We do, however, get absolute confirmation of this short vowel at a fairly early date in Watson's Rule 11th, where he mentions two vowels as being short. On the other hand, there is one certain form in the dialect letters—"foend"—which cannot represent anything but the long vowel, for the dialect of the upper valley has regularly [ɑə] or [ɔə] where the lower valley has [aɪ]. The evidence of dialect spellings, apart from the form "finnd" just quoted, is largely negative, for we shall have "find" whether the pronunciation is [famd] or [fmd], but we may get some help in the Huddersfield-Halifax area, where [aɪ] is regularly [ɑə] or even [ɔə], as is shown by forms in the dialect letters

such as "whoel"—while, "laekt"—liked, "woef"—wife, "besaed"—beside, "taem"—time, "whoet"—white, etc. So when we come across the form "foend" there can be no doubt of the long vowel, but, on the other hand, if such forms are sporadic, it might suggest that the short vowel is the usual form. The presence of these spellings in any number proves a lengthened vowel, the absence only suggests the short vowel. Ellis mentions many areas in the North where "i" has remained short before -nd, and spellings such as "bun"—bound, "fun"—found, and "pund"—pound in dialect publications prove a short vowel for O.E. *ū* also. Yet there is some confusion in the dialects in respect of this change, for "pound" meaning "unit of weight" has the regular pronunciation [pʌnd], whereas when it has the meaning "unit of money" it has the pronunciation [pa:nd]. Similarly "blind" as a noun may have the long or short vowel: if the meaning is "window-covering" the pronunciation is [blaɪnd], but if it has the meaning of "trap" or "deceit" then it has the short vowel, and as an adjective it has the short vowel regularly. Points such as this would provide material for the speculations of the Neo-linguists, for here there seems to be definite evidence of change of sound in order to stress difference of meaning.

The question of the dialect development of diphthongs from an original "o" when followed by a back spirant is too involved to deal with in a short account, but it can be shown that the dialect does keep apart to a marked extent diphthongs developed respectively from M.E. *ou* and M.E. *ou*, the former regularly going to [ɔ] and the latter to [ɒ], though it is not always easy to prove this from evidence of spelling, and there are a few examples of confusion, perhaps due again to analogy. The words "ought" and "nought", mentioned by Watson in his Rule 9th, have the sound [ɒ]. Watson makes no mention of an unusual vowel sound, but his remark on "fetching the sound out of the throat", which can only mean the retention of the spirant, is at first sight rather astonishing. One would not expect the spirant to have

remained so long, even in the dialects, in a North Midland area, for it was already being lost at the time the Towneley Plays were written. At the same time, there are two forms in the dialect letters which seem to bear out his statement that the spirant was pronounced in the dialect at that time: some of the forms with the spelling -gh- may be due to the influence of the literary language, but such an explanation does not hold good for the two forms "saghim"—saw him, and "saghit"—saw it. The problem needs to be discussed at greater length, with more illustration: at the moment it will suffice to say that, whatever the pronunciation may have been in the eighteenth century, the modern dialect has in general no spirant-sound, though perhaps it may occasionally be heard among very old speakers in outlying districts.

One last point I would like to mention, as proving dialect boundaries, is the use of the definite article. The regular form in Lancashire is [θ] or [ð], and this is found fairly regularly in the Halifax and Huddersfield areas, but the Yorkshire form with the "suspended-T" is the regular form in Dewsbury and in the lower valley. Examining the dialect letters we find that the Halifax letter has the [θ] form, but the Sowerby Bridge letter has numerous forms with the "suspended-T": This is rather unusual, as the latter area is further west, and is in closer contact with Lancashire. I think the [θ] form is more usual there now, but it is very interesting to find the two variant forms recorded at such an early date. Ellis recorded the variation, saying that the "suspended-T" was rare, and that [θ] was the usual form for the Halifax area in his time.

The verbal plural in -en is found reflected in the dialect letters, though not mentioned by Watson, and Ellis, writing of Dewsbury, says, "this group in many respects greatly resembles the adjoining parts of Lancashire, and has particularly the verbal plural in -en, the article [th] occasionally . . ." I have not been able to trace any example of the former in the Lower Calderdale area, and the form [θ] is never used. The Rev. W. E. Bryanston, speaking to the Yorkshire Dialect

Society on the Denby Dale dialect, said: "In Denby Dale I never heard the verbal plural in -en, though [θ] for the definite article crops up now and then"; and Denby Dale is further west than Dewsbury. The whole problem of these variant forms of the definite article, and the sharp division into two distinct areas, is most fascinating, and would repay detailed study.

My remarks so far have been confined to those points to which it was earlier suggested that the dialect investigator should pay particular attention. But Watson's "Rules for Pronunciation" (Appendix A), and the two dialect letters (Appendix B) call for further comments. Watson's work was used by Wright in the compilation of his English Dialect Dictionary, but he does not seem to have been aware of the letters, although Ellis ("On Early English Pronunciation," pt. v, p. 382) mentions that his attention had been called to them. Ellis says that "the spelling by no means gives the sound with certainty" and he contented himself with compiling from them a short word-list, and making sundry comments on the pronunciation of the sounds. Yet a close comparison of these two sources, based more on agreements than on differences, gives quite a comprehensive picture of the chief sounds in the dialect of the area at the time, and this, checked by reference to the account of the dialect as given by Ellis in his time, and considered alongside the sounds of the dialect as it is spoken to-day by the older inhabitants of the area, should provide a sufficiently accurate description not only of the sounds of the dialect in the mid-eighteenth century, but also of the phonological development since then, by showing which dialect sounds were in use at that time, and which have changed since then. I have already completed much of this investigation, and hope to present at an early date a detailed account of the development of the various dialect sounds from their respective Middle English sources, but in the meantime some account of the more important conclusions already reached may establish the value of the material. The method I have adopted is to take first the

“Rules” of Watson, and check them by reference to the letters, and then to examine the letters in order to discover dialect sounds which are not mentioned by Watson, verifying both sets of conclusions by reference to the modern dialect.

Rule 1st has already been dealt with in detail, as have also Rule 2d and Rule 3d.

“Loin,” mentioned in Rule 4th, is probably the only word which Watson could have adduced in this group. It is found in the letters as “loin” and “loyn”, and this agrees with the modern pronunciation, but the word is almost certainly derived from a form having “-o-” in Middle English (cf. Towneley Plays—“lonys,” and Promptorium Parvulorum “loyn”).

In Rule 5th it seems to be suggested that the final syllable is strengthened. This does not take place in the modern dialect in such words as Watson mentions in his list, and the dialect letters do not help here, though perhaps one would not expect much help on the subject of final unstressed syllables from a source such as the letters. On the other hand the dialect does strengthen the final unstressed syllable under certain conditions, especially before final -l, -n, and -t. Examples in the modern dialect are [bundl]—bundle, [fʌnl]—funnel, [rɪbm]—ribbon, [wɑɡɪn]—wagon, [kɑrɪt]—carrot, and the form “Chappil” in the first letter suggests that this was also the case in the eighteenth century.

Watson’s Rule 6th is not confirmed by any forms in the letters, though it is confirmed in the main by the modern dialect. Yet this sound is gradually disappearing except in certain words, and I do not think that the unpalatalized sound is nearly so common in the dialect as it was formerly. Examples of such a consonant where Received Standard has [ʃ] are very scarce now. The diphthong of the example “pearck” in this Rule is interesting, for this is the pronunciation in the modern dialect, and Watson’s comment shows that the diphthongization of “e + r” is at least as old as the mid-eighteenth century.

Rule 7th is rather confusing, for it treats of a number of

sounds which are not connected phonologically. None of these sounds are confirmed in the letters. The word "pear" is pronounced in the modern dialect as Watson records it, but his forms for "a + l" are not now found, or, if they are, are extremely rare. The form "sware" in the first letter is contrary to Watson, but the modern dialect pronunciation [swɪə] bears him out. It is interesting to notice that the form "after", chosen as a model by Watson, is pronounced [ɛftə] in the modern dialect, and was probably so pronounced in the dialect in his time. Watson's forms [ɪŋ] and [ɪŋɪŋ] are confirmed by the modern dialect, but the place-name Hanging Heaton has the normal Received Standard vowel.

Rule 8th is confirmed by one or two spellings in the letters such as "rang" and "imang", and also in certain cases by the modern dialect, although the change is perhaps not so widespread in the modern dialect as in the dialect of his time. It is not found, for example, so far as I have been able to discover, in "sang" and "lang" now, except perhaps among old countrymen.

Rule 9th, Rule 10th, and Rule 11th have already been dealt with.

In commenting upon Rule 12th we may perhaps consider Ellis's statement that he found "[uu]—she, more or less used, [shuu], the general South Yorkshire form also occurring". The Rev. W. E. Bryanston, in the address to the Yorkshire Dialect Society previously mentioned, said that he had never heard the form [hoo] meaning "she". Watson records the form [ju], yet one of the letters has "oo", which confirms what Ellis said. As he said that [uu] was dying out in his time, it may be that it was already beginning to give way to [ju] in the eighteenth century, and it may even be that the difference in dates between the letters and Watson's account may account for the difference.

Rule 13th is interesting not so much from the point of view of the vowel sound as in the fact that it seems to indicate that there was no loss of the consonant, and that no diphthongization had taken place. The modern dialect has

lost the consonant, and has apparently developed from a diphthongized form. But forms such as “weeld”, “wold”, “itld” in the dialect letters seem to bear out Watson. In spite of the form “weed” in the letters I do not think that the forms with the consonant are due to the influence of standard spelling, but I incline to the view that Watson may have been right, and the consonant may have been pronounced, though it is an unusual form. The word “uphold” still has variant forms in the modern dialects, with the form [uppd] very common, although [upud] is frequently heard.

In connection with the remark made under Rule 14th I am inclined to think that Watson may have mistaken the sound he heard here, and that it may have been [χs]. This would be confirmed by such spellings in the dialect letters as “seighs”, “Halifeighs”, and “Halifaghs”, but the form “neist” in the first dialect letter still has to be explained. If this should be the sound, then we might perhaps expect an untrained ear to confuse [-fεχs] and [-fεis] in such a form as “Halifeighs”. On the other hand I have seen the place-name Kexborough as “Keisborough” in an old map. If the sound were really [χs] then it bears out in part Rule 9th, so far as the pronunciation of the spirant is concerned.

Rule 15th calls for no particular comment so far as the contracted forms are concerned, for they are to be expected in colloquial speech, though the consonant changes, especially in the form “Ist”, call for more detailed treatment than can be given here. Watson’s form “fok” is confirmed by a similar spelling in the letters, alongside the normal “folk”, but the modern dialect form [fɒuk] has obviously developed from a form with the diphthong.

There are no spellings in the dialect letters confirming the last two Rules, though the modern dialect bears them out. The first remark may perhaps be connected with the change from [d] to [ð] found in the modern dialect, as in [uðəzfeld]—Huddersfield. There are no letters transposed in the dialect letters, but the dialect has one or two forms, such as [gɜʔn]—

grin, and [skrɪmɪdʒ]—scrimmage, scrummage, which is perhaps a form of “skirmish”.

On the other hand, the letters show several peculiarities which one would expect Watson to have noticed, as they show wide divergence from Received Standard pronunciation. Only the most important of these can be mentioned here. The most outstanding is the clear way in which the two letters show the development from M.E. *ū*, which appears regularly as [ɛə] in the Halifax letter, and as [ɪʊ] in the Sowerby Bridge letter. This distinction is still to be found to some extent in the modern dialects of the two areas. This difference in variants from the normal development has already been treated at some length, and it is enough to repeat now that Ellis found both forms in his time, that he thought [ɪʊ] to be the older form, although [ɛə] was the dominant form, and that in general the modern dialect now has [ɛə], though the south-western area still has traces of the former sound.

Another peculiarity, found in the first letter, the appearance of Received Standard [aɪ] as [ɔə], is found only slightly modified, if at all, in the modern dialect. Examples in the letters include: “whoel”—while, “woef”—wife, “foend”—find, “loek”—like, with variant spellings such as “besaed”—beside, “taem”—time, “laekt”—liked. The second letter has no forms of this kind, but apparently records the normal [aɪ] diphthong. The “ae-” spellings may represent [ɛə], and in that case may show a development from a form [tæm], with perhaps some trace of diphthongization. The modern pronunciation is, for example, [tæm], with perhaps some diphthongization. The form “cro”—cry, perhaps shows this development towards [ɑ]. Ellis recorded these “ae”-forms as not being the expected type.

The sound indicated by the spelling “ei” in the first letter is not clear, for it is used in forms such as “meister”—master, “thei”—they, “awei”—away, “sei”—say, where the modern dialect has [ɛ:], and I am not satisfied that [eɪ] is indicated here, especially as “Maister” is found alongside

“meister”. The second letter has “ai”, and I rather think that the pure vowel [ɛ:] is indicated by “ai” or “ei” in the first letter, though “reight”—right, certainly has the pronunciation [rɛit] in the modern dialect.

The regular occurrence of the spelling “ur” in forms such as “thurte”—thirty, “surr”—sir, “furst”—first, suggests that a sound peculiar to the dialect is indicated (Watson perhaps refers to this particular sound in his Rule 6th, in the alternative form “burk”, after giving “birk”), and the modern dialect has a sound between [ɒ] and [ɜ·] for this combination, whether arising from earlier -er-, -ir-, -or-, or -ur-. The development is by no means clear, but it may perhaps be connected by means of spelling pronunciation with such forms as “norse”—nurse; (cf. Sir Gawayne and the Grene Knight). The modern pronunciation of this word is between [nɒs] and [nɜ·s], and nearer the former. The pronunciation is so near to [ɒ] that for many years I was under the impression that [ʃip tɒds]—sheep turds, was intended to be “sheep tods”, and I think many young people use the term under that impression.

Another variation found in the letters is the use of the short vowel, so common in the Northern dialects, in such forms as “mak”—here meaning “kind”, “takken”—take (present tense, plural), “tackint”—taking it. An interesting variant of this sound is heard occasionally in some of the villages, where one may hear [mɛ:]—make, and this may be the sound represented by “ma” at the end of the second letter.

The first letter is unusual for the large number of weakened vowel forms, especially in a final position. The question of weakening of vowels, and also the strengthening in certain positions, is one requiring detailed study so far as Northern dialects are concerned. Perhaps material such as this may provide the missing information as to the development in the Early Modern period.

As regards Accidence the most interesting point is the occurrence of the -en plural in verb-forms of the present tense.

This is not so common in the modern dialect as in the first letter. The form "teld"—told, is the common form in the modern dialect, as is also the form "speld". The use of an inflected form with a plural subject, as in "TCuntre Meisters runs awei wit" and "som fok calls" is typical of the modern dialect.

There are many other points which could be discussed with reference to the phonology of the dialect, but I have tried to keep to the particular points mentioned earlier, and to the most important points arising in the eighteenth century material. I hope, however, that sufficient has been said to show that there is much to be said for a purely phonological investigation of a dialect, once the raw material has been gathered together. And even then this is only one aspect of the investigation. Much might be said about the peculiarities of dialect vocabulary, and changes in semantic development, while the question of idiom alone would require more space, if it were to be treated adequately, than has been devoted here to phonological questions.

Finally, and very briefly, mention may perhaps be made of the opportunities for dialect study in this country. On the Continent University Readerships in Dialect Study have been established, but in this country the position is not so good, and I think that with greater encouragement, and better opportunities for publication of material once it has been gathered, much more would be done than has been done so far.

APPENDIX A

Remarks on the Dialect of Halifax Parish. Rules for Pronuntiation

Rule 1st. After oo add an i, pronouncing brisk, which will give the usual sound in the following monosyllables: For soon, sooin; for noon, nooin; goose, gooise; fool, fooil; tool, tooil; cool, cooil; hood, hoodid; mood, mooid; moon, mooin; noon, nooin; rood, rooid; spoon, spooin; school,

school; blood, blood; book, booi; and others. Also plural nouns, as for boots, booi; roots, rooi; etc., except wood, and perhaps a very few more words of the like sort. (In some parts of the parish, especially westward, oo are pronounced as oi, as foit for foot, etc.) Words of two syllables come also under this rule, as cooisin for cousin. Also shooin for shoes.

Rule 2d. Some few words ending in ote, are pronounced as if they ended in oite, as noite for note. This seems to be confined to substantives; verbs of the preter tenses, such as wrote, bote, etc., do not fall under it. To this rule also belong words which contain the letters oat, as for coat, coit; for oats, oits; for broach, they also say broich. To these, indeed, there are several exceptions, such as boat, goat, etc. To this rule also belong such words as end in ole and oal, as for foal, foil; coal, coil; hole, hoil; soal, soil; etc., except dole, mole, pole, sole.

Rule 3d. Such words as tea, flea, and yea, are sounded as if they were composed of two syllables; and the negative particle no, as nooa.

Rule 4th. Lane is pronounced as loin, but few, if any more words of this sort are subject to the like change.

Rule 5th. The latter syllable in the words bacon, button, glutton, mutton, and such like, are sounded open and full, contrary to the custom of most other places.

Rule 6th. Words ending in ch, are pronounced as if they ended in k, as birk for birch, benk for bench, kirk for church, ick for itch, pick for pitch, thack for thatch, perk for perch. Some for birch say burk, and for perch, peark. Exceptions to this rule are, catch, hatch, match, patch, watch, etc. They also say kist for chest. Words ending in sh are the same, as busk for bush.

Rule 7th. The letter a, in the word altar, almost, exalt, halt, salt, etc., is pronounced as in the word after, or the Latin word altus; not, as is the custom in most places, like

the diphthong au. In the word pear it is sounded like e, as if it was peer. In the words hanging and hang, it is sometimes used as an i, hinging and hing. And in the word press it is substituted into the room of the e, and pronounced prass. Lastly, in salmon and gammon, it is used as au, viz. saumon and gaumon.

Rule 8th. The letter o is frequently changed into a, as belongs for belongs, lang for long, sang for song, tangs for tongs, warse for worse, emang for among.

Rule 9th. Ought, nought, and words of the like sort, are pronounced by fetching the sound out of the throat, as if they were written ouht, nouht.

Rule 10th. Ose is sounded like oise, thus cloise for close, loise for lose.

Rule 11th. I, in the word find, is pronounced as in the word hinder; and sometimes it is changed into u, as behund for behind.

Rule 12th. U is used for e, runt for rent, shu for she, yus for yes; and the consonant v is often changed into the vowel one, as neuer for never, euer for ever.

Rule 13th. U is omitted in such words as could, would, should; and the letters old pronounced as in the word lolled. In the same manner is also the word uphold pronounced, and sometimes uphod.

Rule 14th. X is often changed into is, as Halifais for Halifax, neist for next, seis for six, seist for sixth, wais for wax, ais for ax.

Rule 15th. Words are frequently contracted, as Ise for I am, Ist for I shall, also by the omission of a letter, as fok for folk.

Rule 16th. T is changed into d, as pewder for pewter; also d into t, as clots for clods.

Rule 17th. Letters are frequently transposed, as girn for grin, skrimish for skirmish.

APPENDIX B

Halifeighs, Maartch 14th, 1759.

Maister Dorbee,

Yawl vorre mitch ableege me, an eal print this letter a yawr neuspaper neist Wik, thoa sen yawr a gooid mon e dooin sitch a thing for a poor bodde, on i sware i'm reight poor; i'm but a poor jurneeman croppar man, an its a trade noight gooid too, yawr work twelve aares for ten pinse; thmorchens al ha wage enogh, but its tCuntre Meisters mon at runs awei wit. But what i want yaw to doo for me is, om in a deeol o truble abaet a Pointer, yaw nawn what e mean, som fok calls em Spaniards, at aaer Meister broght me to keep for on oth Morchens at e works for, and yusturday whoel i wor at mi wurk, mo woef, a gaumless fooil, laate im run awei. Meister wold not loize him for twenty ginniz; for mon thei setten more store o ther dogs than o ther men, an one on em ligs e more keepin then one o mo childer, or where the dule maught one get it aaeto laaeze ten pinse oth dey? besaed aaer Meister sez at Meister — laekt this dog better than onne e haz, an o dor sei heez ommost thurte o one mak on other, haaends, an beigles, an pointers; but heez lent this dog at o had monne a taem toth Porson, an e laeks im reight weel, thei sen heez a vorre gooid shoiter, but i think sur e mught foend summet else to do, but sum on om ez nobbed loek like other folk at i see; but this dog sur, heez a braaen on whoet on, he corries a gooid teil, an heez a brass collar abaaet iz neck, wi Meister —z name on, for tha takken a praed mon a keepin a deal o dogs; heez not a vorre grut dog, not a vorre little on, but ov a middle soez: An if yaw con hear ov onne bodde at haz im, yaw needen not be feared but yawl get peid, an weel too, prei a na sur, put it in, for om ommost fleid aet me wit abaaet it; tho othink we sall hear on im agean too, for if Meister — get to hear heez lost, heel get awther Porson orth Clark to cro im ith Chappil or else daub up a paper at Chappil doore abaaet it. So sur i think o noed to sei no more, yawl doit for me, o dor sei, an ost be vorre mitch ableeged tooya.

FRANK FORFEX, tho croppar.

For Maister Dorbee at prinstd Halifaghs Jurnal with aul Haste.
Maister Dorbee, Surr,

Whot om bewn to rite iz abewt dog at yaur news told on. For mon o Tuesday at neet we wor gone a drinking too ith Ale hews, an we heard Joss o maister sam's reed tnews abewt a dog at wor lost, an at taim at faint moot ha sommot for tackint up. So we sed tone toth tother at weeld watch tLoin oth Wednesday Caus we wor gravin at toms oth dohill ith faur de wark an it Liggs meet att Loin side, So we gate up meeterley soyn oth Wednesday at morn on went to or wark and I Darsay weed not dun aboon five or seighs foors afore joss Chonst to be starin abewt im, ast most part o poolers dou an saghim com trotting up at Cruckt turn ith lower Loyn. So ee ran an fot im, but we cud not tell att furst whether it wor a rang on for it ad more marks nor yawr news told on an it did not hold up it teil abit, an beside ad gret ribs in it side ant Belly wor meet at it for Leggs ant Coller wor far to wide fort ant Letters wor Speld wit rang side up for we cud not make em ewt, hewiver I tookt home an put it ith coyt imangth flaghths an teld Matty to git some draff but tplagy bitch gat aul toth ould hen and so thpoor dog wor ther while fride at Neet afore any body thought ont or saghit but hur when owent to fot flaghths to lay oth fire an oo took no notice ont athewt twur to git a nock wi or Clogg so o fride at neet oo sed tew gret slane wat walt to doo we this rotten nasty thing so joss an me went an cauld ont but it coom none Ewt cause we new not wat to caulit but wee cauld Pointer and Spanierd an Dol an Jet an Nance an Tobe an aulth dog names at we cud think on but th sluberen son of a **** ald not stir an ten Joss went tot an pausd it and paid it but ee wor no better for itld move noan nor hasnt dun Eat. So any mon at naws wat to Caulit av a mind to come an give oz a groat ee may hat for its nobbut ith gate hear.

New Maister Dorbee an Yawl print tis yawl ma poor Frank fain or an yaw Cud tellim bewt printin it may happen doo oz weel But yawm be sure to dooth tone.

SAWRBY TUPP.

APPENDIX C

Illustrative spellings from "The Dewsbre Back at Moin Olmenac an T'West Riding Historical Calendar for t'year 1869".

- (a) booat, dooaf, looads, rooad, nooan, sooap.
groape, roape, moast, noaze, goa (these may illustrate the earlier sound before over-rounding).
- (b) coil, hoyle, cloise, throit, coits, soils (soles) .
- (c) rade.
- (d) bloodshed, flooid, gooise, moin, Sooithill.
- (e) hahce, aht, rahnd, abaht, amaant, amahnt, baandries, caah, daahn, draahnd, laahder (louder), maase.
(The variant Huddersfield and Halifax forms are well shown in the two letters :
(i) abaet, aaer, haaends, braaen, aaet, abaaet.
(ii) bewn, hews, abewt, ewt, hewiver, bewt.)
- (f) deaal, cleean, leean, leeast, seea, breath, dreeaded, beeats, cheeape, steeam, deead, deeaf, dreedamed.
- (g) eit, meit, speik, steil, weiver.
- (h) foend. (The only example I can find showing a long vowel.)

SOME NEW IDEAS ON THE STRUCTURE OF THE INDO-EUROPEAN PARENT LANGUAGE

By ALF SOMMERFELT

SINCE the last decades of the nineteenth century our view of the system of the Indo-European parent language had remained comparatively stable. The main features which emerged from the work of de Saussure, Brugmann, and their generation had been generally accepted. Innumerable minor points had, of course, been discussed, and the details of the structure had been worked out. There were many divergent views on the conditions which preceded the system as we can grasp it through the comparison of the existing Indo-European languages, but there was a high degree of agreement on the main features of the system. To the modern linguist who, having studied modern languages belonging to different linguistic families and not coming to Comparative Indo-European Grammar from Classical Philology as did so many of the German comparative philologists, Meillet's view of the structure of the parent language was the most satisfactory one.

Phonologically this language was believed to have been comparatively simple: the vowels *e*: *o*: *a* short and long and the reduced vowel *ə*. A system of sonants *y*, *w*, *l*, *r*, *m*, *n* acting as consonants or vowels or as the second part of diphthongs. The consonants *p*, *t*, their voiced counterparts and the aspirated forms of both. A system of gutturals corresponding to the dentals and labials and distinguishing also between a palatal and a labio-velar series. An elaborate system of vowel gradations for grammatical purposes. A clear distinction between nouns, verbs, pronouns, and particles, the adjectives forming a sub-class under the noun. The word-families being united by a common element called a root not having any separate existence (apart from the case of radical nouns). The roots

were thought to belong to two classes, one monosyllabic, e.g. **per-*, and one dissyllabic, e.g. **g^weyə-*. The root was thought to comprise from two to five phonemes, e.g. **dō-* or **sneig^wh-*, to have vocalic or consonantic initial, e.g. *ar-*, etc.

F. de Saussure had gone further, believing that the long vowels originated from diphthongs, \bar{e} from $e + a$ sonant A , and \bar{o} from $e + a$ sonant Q . \bar{a} was due to a secondary modification of \bar{e} from eA . In 1891 he showed how Old Indian *th* corresponds to Greek τ , e.g. **pr^wthú-*: *πλατύς*, and explained *th* from $t + ə$.

The Danish scholar Herman Möller used de Saussure's ideas in his theory of an Indo-European-Semitic relationship and believed that the lost phonemes posited by de Saussure were different kinds of laryngals. He was followed by his pupil Holger Pedersen and the Frenchman Cuny. Their efforts did not, however, carry conviction, and most scholars preferred to await developments. In the meantime the Hittite language had been discovered, and in 1927 the young Polish linguist Jerzy Kuryłowicz discovered that de Saussure's A is represented in Hittite by h . Originally Kuryłowicz reckoned with three varieties, a_1 , a_2 , a_3 , which produced different long vowels out of a preceding e .

This discovery had far-reaching consequences. In 1935 the Frenchman Benveniste and Kuryłowicz himself published the first systematic researches on major points of Indo-European structure in light of the evidence furnished by Hittite. These books—the title of Benveniste's is *Origines de la formation des noms en indo-européen*, i, that of Kuryłowicz is *Études indoeuropéennes*, i—show a new picture of the structure of the parent language. Let me take the most important part of their theory, the structure of the root and its consequences.

Benveniste is the most systematic, the clearest and also the boldest. He takes his point of departure in Kuryłowicz' theory of the three new consonants and the formulae established by Kuryłowicz.

* $\alpha_1 + e > *e$ * $\alpha_2 + e > a$ * $\alpha_3 + e > o$ (not in vowel gradation with *e*)

* $e + \alpha_1 > \bar{e}$ * $e + \alpha_2 > \bar{a}$ * $e + \alpha_3 > \bar{o}$

α_2 and α_3 give Hittite *h*, e.g. *hanti*: Gr. ἀντί, *hastai*: Gr. ὄστειον.

α_1 disappears before vowels in Hittite but is represented by *a* before a consonant, e.g. * α_1 es- > eš(zi) 'he is': * α_1 s(-onti) > aš(-anzi) 'they are'.

If we apply these formulae to the Indo-European roots as we have been accustomed to know them their aspect changes and their structure is greatly simplified, e.g. :—

*ed- < * α_1 ed-
 *ag- < * α_2 eg-
 *ok^w- < * α_3 ek^w-
 *dhē- < *dhe α_1 -
 *bhā- < *bhe α_2 -
 *pō- < *pe α_3 -

This, says Benveniste, is the Indo-European root. The structural elements which follow upon the root he proposes to call suffix and enlargement (*élargissement*). The difference between the two is a purely formal one. The suffix is characterized by a gradation, e.g. -et- : -t-, -en- : -n-, etc., whereas an enlargement consists of a consonant and does not vary, e.g. -t-, -n-, etc.

According to the form of the suffix Benveniste distinguishes between two themes, theme I with the reduced suffix and theme II with the full suffix, e.g. Gr. *Fέργον* < *wer-g- and *ρέξω* < *wr-ég-; *gén- α_1 - (Gr. γενε-) : *gn- $\epsilon\alpha_1$ - (Gr. γνη-) ; * α_2 ér-k- (Hitt. *hark-* 'to have') : * α_2 r-ék- (lit. rak-), etc.

The three new phonemes are represented by vowels in Greek where they occur initially before a consonant :—

* α_1 én-k (cf. ὄγκος) : * α_1 n-ék- (Gr. ἐνεκ-)
 * α_2 él-g- (Gr. ἄλγος) : * α_2 l-ég- (Gr. ἀλέγω, O.N. lákr)
 * α_3 él-k- (Gr. ὄλκ-) : * α_3 l-ék- (Gr. ὀλέκω)

A root may have only one suffix, a verbal theme may have one suffix and one enlargement. Of two or three consecutive

morphological elements only one can have the full grade. Two reduced grade elements cannot be added to a root. When the root has a full grade vowel it admits only a suffix in the reduced grade and no enlargement. The full suffix is possible only when the root is reduced. Therefore **pér-k-* exists, but neither **pér-ek-* nor **pér-k-s-*, but on the other hand **pr-ék-* and **pr-ék-s-*.

In this way Benveniste dissolves the roots into three phonemes, consonant + *e* + consonant. The roots beginning in *s* either belong to the same type or the *s* is a prefix, e.g. **sek-* 'to cut', but *(*s*)*ker-* 'to slice, to cut'.

He comes to the following conclusion: 1° reduced vowel grade in a verbal theme is due to the addition of a double enlargement. 2° an addition of more than one enlargement to a verbal theme points to a noun formation. The root consists of a consonant followed by *e* and by another consonant. All consonants may appear in the root when they are different from each other within the same root, and when the one is not voiceless and the other a voiced aspirate. When the root has a suffix it has two themes, one with the root in the full grade and the suffix in the reduced and one with the root in the reduced grade and the suffix in the full. One single enlargement may be added to the suffix of the first theme, either following it or appearing between the root and the suffix (infixation). The addition of further elements indicates a noun formation.

The thematic vowel is an enlargement, not a suffix. The verbal endings contain no elements which are not represented among the suffixes.

The theory is of consequence also for the phonology of the parent language. The voiceless aspirated stops disappear, they represent in reality a voiceless stop followed by a_2 or a_3 .

But what is the value of all the elements added to the root? Benveniste studies only one of them, the *-dh-*, which may be suffix or enlargement. He comes to the conclusion that it signifies 'l'état, spécialement l'état achevé'.

Kuryłowicz in his book elaborates further his theory of the

different ∂ 's. He reckons with the same assimilations of vowels and ∂_1 , ∂_2 , ∂_3 as in his article published in 1927. Between vowels the element ∂ disappears, e.g. the Vedic participle *yantam* to be read *yaántam* from **ye ∂_2 -*. Between consonants the element ∂ disappears also, e.g. **ded ∂_3 té* > **detté*, Ved. *dattá*.

Between a consonant and a vowel the element disappears, but *k*, *t*, *p*, ** ∂* (before a vowel) give rise to Indo-Iranian *kh*, *th*, *ph*.

The ∂ of the earlier theory is the consonant + a reduced vowel, in Greek ϵ , o , a . This reduced vowel is the ∂ *secundum* of Güntert.

Every Indo-European word beginning in a vowel has lost a ∂ . There are, however, roots which begin in a consonant which may have lost a ∂ before the consonant. Greek and Armenian have, however, a vowel before the consonant in this case.

In Hittite ∂_2 is represented by *h*. But there are in Indo-European *ā*'s which are not justified by a Hittite *h*. Kuryłowicz asks if there has not been a fourth consonant ∂_4 which has disappeared but changed the vowel into *a* in all Indo-European languages. He does not follow up his hypothesis, however, but Sturtevant has adopted it in his latest book *The Indo-Hittite Laryngeals*.¹

Kuryłowicz, too, has a new theory of the root. According to him the root is characterized 1° by an initial consonant or group of consonants (which obeys certain structural principles) 2° the fundamental vowel 3° a final consonant or group of consonants. The latter can only consist of two consonants of which the former must be more open than the latter.

According to the final character of the root Kuryłowicz distinguishes between heavy and light roots. A heavy root ends in a sonant + a consonant, the light one in a single consonant. They are the result of the action of the accent on a series of three syllables—Kuryłowicz here refers to Hirt's

¹ Linguistic Society of America, Baltimore, 1942.

theory of the base: $*a_1e-ne-\hat{k}e > a_1n\hat{e}k-$, $*pe-le-a_1e- > *pl\hat{e}a_1-$, but $a_1\acute{e}ne-\hat{k}e > *a_1\acute{e}n\hat{k}e-$, $*p\acute{e}le-a_1e- > *p\acute{e}la_1-$.

Kuryłowicz is of the opinion that the origin of the suffixes must not, except in some rare and clear cases, be sought in word-composition. They are, as he says, either ‘particles of roots, having taken over a semantic function, or “conglutinations” which owe their existence to the junction of two older suffixes’.

This is a simplified account of some of the salient points of the two books. How much may be said to be fairly well proved? I think that the theory of the laryngals may be regarded as well established. This entails the necessity of discarding the vowel system established in the seventies and eighties of last century, and also of accepting the new theory of the aspirates. But if this is so the whole old system is ripped up. Sturtevant believes in an “Indo-Hittite” period to which he ascribes the laryngals and thinks that it is possible to retain most of the current reconstructions in the case of the Indo-European languages other than Hittite. I cannot see that any of his arguments carries conviction. If Hittite was separated early from the bulk of the Indo-European languages and got into the orbit of the languages of Asia Minor we should expect it to retain some archaisms and at the same time to have undergone great changes which may have happened through a comparatively short period. Linguistic changes are not natural changes but social. They do not follow any natural rhythm. If we take the Scandinavian languages they have undergone greater changes during a couple of hundred years after the great migrations and towards the end of the medieval period than during many more centuries at other periods of their development. And it would not be surprising that the other Indo-European languages had gone through many parallel developments if they had remained together for a certain time after the emigration of the Hittites. That is only what we should expect in a continuous area of dialects.

Neither of the two theories of the root can be regarded as

proved. Benveniste's is the simplest and appeals most strongly to a linguist who has studied types of the more archaic languages. Its weakness is the undetermined character of the suffixes and the enlargements. Benveniste has tried to fix the sense of only one of them, the *-dh*. But he was, as far as I know, working on this problem when the war broke out. If he is able to give a plausible explanation of these elements I think we shall get a most interesting insight into the proto-Indo-European system. If Benveniste's reconstructions are right the Indo-European system has developed out of an earlier one with fewer parts of speech than those of the Indo-European languages. It may be possible to follow the building up of the parts of speech to which we are accustomed and which are behind our logical categories.

However this may be, the researches of Benveniste and Kuryłowicz are of the greatest importance to the history of Indo-European and also to linguistic studies in general. The theory worked out by de Saussure, Brugmann, and Meillet is finished. Some regret may be felt at this, especially by those who have followed Meillet's brilliant and inspiring lectures. But I am sure that that great scholar would have been the first to hail the new ideas which have advanced our science.

SECRETARIES' ANNUAL REPORT FOR 1944

During the year 1944 the Society held six ordinary meetings, two at the School of Oriental and African Studies and the rest at King's College, when the following papers were read : 14th January, by M. Jean Burnay on " Demonstration en français—demonstratif et article " ; 11th February, by Miss M. Daunt on " Some Suggestions on English Speech and Verse Rhythms " ; 10th March, by Mr. A. S. C. Ross on " An Indo-European Finno-Ugrian Loanword Problem " ; 12th May (the Anniversary Meeting), by Sir William A. Craigie, a Presidential Address on " The Outlook in Philology " ; 27th October, by Dr. Alf Sommerfelt on " Some New Ideas on the Structure of the Indo-European Parent Language " ; 24th November, by Professor Daniel Jones on " Some Thoughts on the Phoneme " .

The 1943 issue of *Transactions* was distributed early in the summer ; it has not yet been possible to reduce the time-lag further, but the 1944 issue is on the point of appearing. The final page proofs of Dr. Palmer's book have been revised.

Eleven individual members and two libraries joined the Society during 1944 ; at the end of the year the total membership stood at 186, including eight members in enemy, occupied or recently liberated countries ; this total has now been increased by twelve accessions. A change has been made in the Life Membership subscription, which is now £30 with a reduction of 6s. for each year of life already completed.

The Society has lost by death among others Professor Lindelöf, of Helsinki, and last month a veteran member, Professor H. G. Fiedler.

A. WOODWARD } *Joint Honorary*
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11th May, 1945.

THE PHILOLOGICAL SOCIETY
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	£	s.	d.		£	s.	d.
To Balance							
* Annual Subscriptions 1941 (4)	4	4	0	By Stationery and miscellaneous printing	7	16	10½
1942 (4)	4	4	0	Stamps:			
1943 (23)	24	3	0	Postage and receipt	5	3	
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	206	0	1	Life Subscriptions prior to 1944	99	15	0
Interest:				1944 (1)	16	10	0
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(1944)				Donation	10	6	
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War Loan	14	19	3				132 11 6
P.O. Life Fund Account	15	0	3	Transactions:			
	45	13	1	1941	148	11	0
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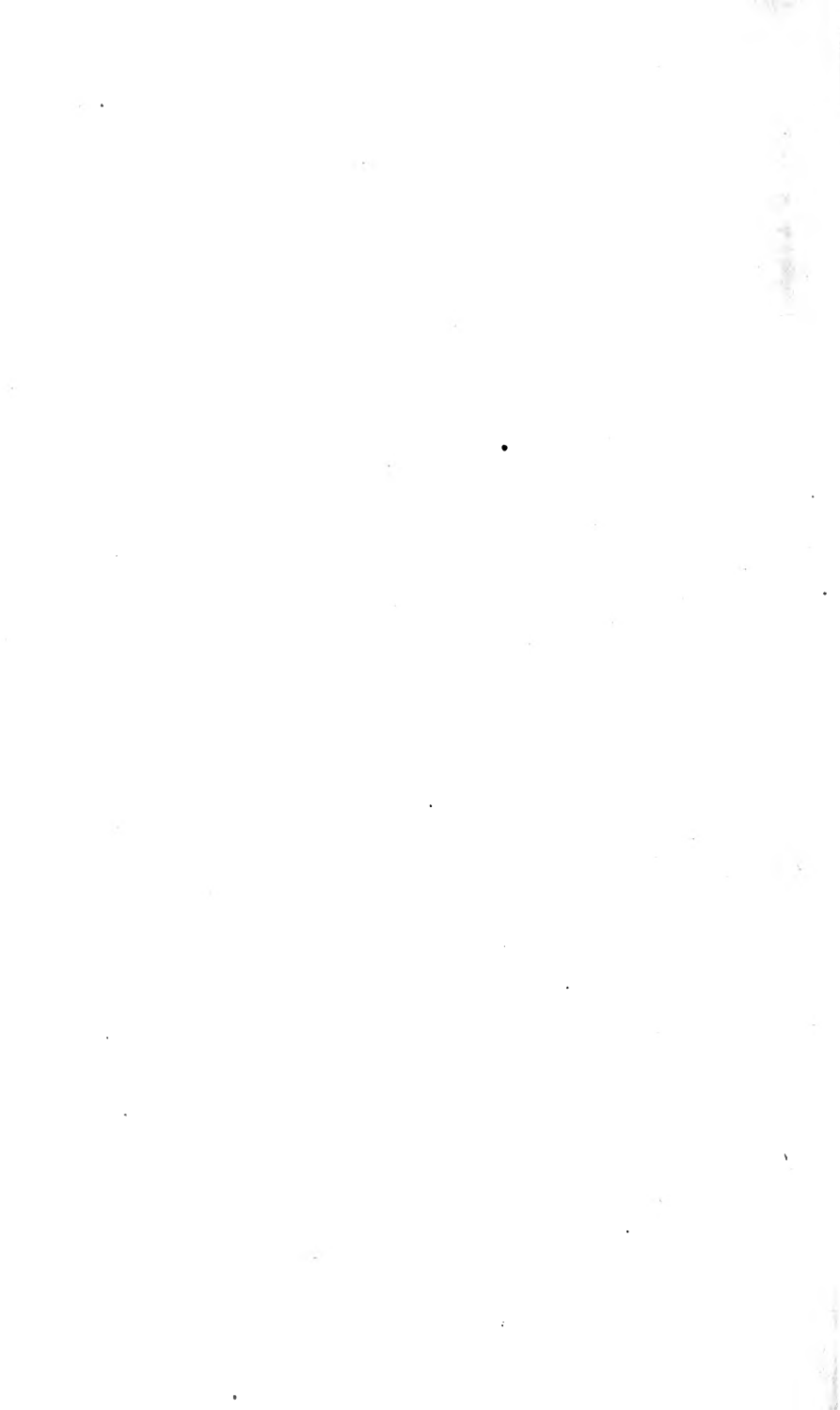
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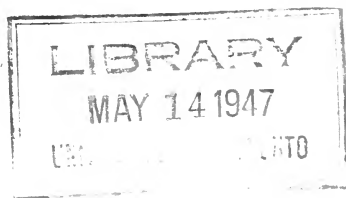
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LOANWORDS IN SANSKRIT

By T. BURROW

THE break-up of Indo-european linguistic unity was accompanied by a rapid and wide expansion of the area in which languages of this family were spoken. This expansion proceeded at the expense of pre-existing languages which were replaced by languages of the Indo-european family. These languages did not give way before influencing the newly introduced forms of speech both in vocabulary and other respects. This becomes clear at once from a perusal of the etymological dictionaries, where it can be seen how large a proportion of the words in each language are devoid of satisfactory etymologies. But investigation of the loan-word problem in Indo-european is rendered difficult by the completeness with which in most cases the indigenous languages have been overwhelmed. In Western Europe the victory of the IE. languages has left only Basque as an isolated remnant of an earlier form of speech. Fragmentary remains of languages in the Greek and Italian peninsulas have survived in a small number of documents, but the information they supply is small and inadequate.

The case is quite different in India. Here although Indo-aryan has occupied the greater part of the country it has not succeeded in completely ousting the earlier linguistic groups. Excluding Tibeto-Burman languages which hardly belong to India proper, the non-Aryan languages of India can be divided into three groups: (1) Burushaski isolated by itself in two valleys in the north-west. (2) The Munda or Kolarian Family represented by a dozen or more languages spoken by primitive peoples in Eastern and Central India. (3) Most important of all, the Dravidian languages forming a solid block in the south, and represented by smaller languages in the central and northern parts of India, reaching in the case of Brahui as far as Baluchistan. There is therefore plenty of

material to work on in studying the sources of the non-Aryan elements in Sanskrit and the languages derived from it. In the case of this last mentioned group this evidence is not merely to be sought among languages spoken at the present day, since Tamil, Malayalam, Kanarese, and Telugu have respectable literatures, which in the case of Tamil takes us back almost 2,000 years in the history of the language.

A short survey of the work that has been done and the prospects of future investigation forms the subject of this paper. That Sanskrit, particularly the later classical language, contains a large non-Indo-european element is plain enough to see. The expectation that a large percentage of this might be explained from the existing non-Aryan languages of India, has already been shown to be fully justified, and there is no doubt that a very large proportion of the words without etymologies in Sanskrit will eventually yield to treatment of this kind.

Of the three language families mentioned the least is to be expected from Burushaski on account of the restricted area in which it is found and the fact that it is only known from modern times. As far as I am aware no Sanskrit words have been explained from this source, and although the possibility is always to be borne in mind, we must at the same time remain aware of the difficulties with which any such attempts are confronted. To illustrate this we may quote a word of somewhat obscure meaning which occurs in the Vedic literature, namely *kīlāla-*. The contexts make it sufficiently clear that the word means some kind of milk-product, but it is not possible to be more specific than that. The word is clearly borrowed from some non-Aryan source otherwise we would not find a guttural before the vowel *-ī-* (Wack., *AIGr.* i, § 123). In later Sanskrit the word went out of use, except artificially and incorrectly in the sense of 'blood', its place being taken by the variant form *kīlāṭā*. In the north-west similar words are still in use, namely Shina *kirāri* a milk product made by Gujars, Khow. *kīlāl*, *kīlāri* cheese when kept, Yidgha *kirār* Kafir cheese, Pashai *kirār*.

In Burushaski, too, we find the word in the form *kīlāy* curds made from biestings. Dealing with a non-Aryan word, and one current only in a restricted area of the north-west, we have a strong case for ascribing the word to Burushaski which is the most ancient language in these parts. The difficulty of course is to find any proof, since Burushaski has borrowed so many words from the neighbouring languages that we cannot be sure that this word also has not been acquired by it like many others in recent times. This difficulty could only be got over if it were possible to connect Burushaski with some other group of languages and establish by scientific comparison its ancient vocabulary. This has not yet been done. An attempt has been made to show its connection with the Caucasian languages,¹ but the basis of proof is too slender. It may turn out to be so, but more evidence will have to be produced.

Turning to the second group, the Kolarian languages, we are on somewhat firmer ground. In this field some decisive work has been done in tracing some common Sanskrit words to this source, and also the position of the languages has been made clear by the demonstration of their connection with the languages of Further India. The relationship between the Kolarian languages of India, and the Mon-Khmer group further east was noted early (*LSI* iv 10–11) and finally demonstrated by W. Schmidt.² Schmidt's theories have been generally accepted, but recently there has been some not very effective opposition. W. Hevesy, who made an unscientific attempt to connect these languages with Finno-ugrian,³ attacked the Austro-asiatic theory in this connection.⁴ Lately T. A. Sebeok, in an article in *Language*, has also taken up a sceptical position with regard to the Austro-asiatic

¹ R. Bleichsteiner, Die wershikisch-burischkische Sprache im Pamirgebiet und ihre Stellung zu den Japhetiten des Kaukasus, Wiener Beitr. z. Kulturgeschichte u. Linguistik i, 289–331.

² W. Schmidt, *Die Mon-Khmer Völker, ein Bindeglied zwischen Völkern Zentralasiens u. Australasiens*, 1906.

³ *Finnisch-ugrisches aus Indien*, Wien, 1932.

⁴ *BSOS* vi, 187 ff.; cf. Schmidt's reply *BSOS* vii, 729 ff.

theory. It must be emphasized that these criticisms are not at all effective or convincing. It is of course easy to pick out errors in Schmidt's book, such as the inclusion of Indo-aryan (*concol, gorom, tito*), Persian (*dil, tear, husiar*), and Arabic (*julm*) words among his comparisons. But when all this has been pruned away, there still remains enough clear and unambiguous material to make it quite evident that the languages in question are genealogically related. They have in common the basic principles of the structure of the languages, notably the system of building up words by means of a complicated system of prefixes and infixes, together with the most basic elements of the vocabulary, the numerals from one to six, the parts of the body, and so forth.

It is necessary to insist on this from the point of view of our present subject, since such work as has been done in this direction has been based on the theory of this relationship. That is to say that Sanskrit words have been compared directly with words occurring in Austro-asiatic languages outside India, and it is not supposed that these words were imported into Sanskrit from those regions, but that they were acquired in India from people speaking languages related to these. A good example is the Sanskrit word for 'banana', *kadalī*. J. Przyluski¹ demonstrated quite clearly the Austro-asiatic origin of this word by quoting words occurring in languages in the Malay peninsula and some other Mon-Khmer languages: Sak. Sem. *telui kelui*, etc., Southern Nicobar *talūi* plantain, Khmer *tut taloi* banana tree, Palaung *kloai* plantain. He was not at the time able to quote anything from the Kolarian languages of India, but the word has since turned up in Savara *kintēn-ən* banana, a fact which helps to demonstrate the correctness of his procedure.²

¹ *Pre-Aryan and Pre-Dravidian in India* p. 4.

² But his analysis of the word (*ka-ta-lī*) is open to some doubt. It is probable that Sak. Sem. *tel-*, etc., and Savaru *-tēn* is the radical element and that the *k/t* alternation in Sak. Sem. *telui, kelui*; Khmer *taloi*: Palaung *kloai* is phonetic in nature, and due to the proximity of *-l-* to the initial consonant.

As might be expected the names of Eastern plants unknown to the Aryans before their arrival figure largely in this list of loanwords. Besides the word for 'banana' just mentioned we have also the words for betel (Skt. *tāmbūla*-: see ib. pp. 15 ff.), cotton (Skt. *karpāsa*-: ib. pp. 23 ff.; add also Skt. *picu* cotton, which can be compared with the unprefixd forms he quotes: Črau *paç, baç*, Stieng *pahi*; whence also the Dravidian words Ta. *pañci, pañcu*, Ka. *pañji*), gourd (Skt. *alābu*: Malay Peninsula *labu, labo*, Khmer *lbow*, etc., ib. p. 155), mustard (Skt. *sarşapa*-: Malay *sesawi*, etc., Przuluski and Regamey, *BSOS* viii 703), and ginger (Skt. *śrngavēra*: Savara *şinger-an*, contracted form *şiŋ-an*, Khasi *s'ing*; cf. Burmese *hkyang* (pronounced *jin*); from the same source Ta. *iñci*). Among animals native to India Skt. *mātānga*-elephant, is convincingly explained from this source (ib. p. 129: Sak. *mēntoñ* elephant, from Austro-asiatic *tañ* hand, cf. *hastin*-).

There are also words of a more general character. A word which appears late in Sanskrit, *jim-*, *jemati* to eat, and is widely spread in the modern Indo-aryan languages, Hi. *jevnā* to eat, *jimānā* to feed, Mar. *jevnē* to eat, etc., is derived from the usual Kolarian word meaning the same thing: Santali *jām* to eat, Kurku *jome*, Juang *jim*, Savara *jum*, etc. (R. L. Turner, *Nepali Dictionary* s.v. *jiunār*). This is also one of the words common to the Kolarian and Mon-Khmer languages (Schmidt, no. 74).

The Indo-aryan were in contact with peoples of the Austro-asiatic family very early in their career. The name of Indra's celebrated opponent *Śambara*-, who figures in the *Rgveda*, is a Kolarian ethnic or tribal name identical (with the common nasal infix) with the word which appears in later Sanskrit as *Śabara*- and at present in the form *Savara* or *Sōrā* is applied to a people speaking one of the most important languages of this group. We can see quite clearly from the *Rigveda* that the struggle was no short or easy affair, and the mention of 100 forts would seem to show that the enemies of the Aryans were organized in fairly extensive political units and

had attained to some degree of material civilization. In consequence of the victory of the Indo-aryans and their eventual occupation of the whole of the Ganges valley, these languages have now been driven to isolated and out of the way spots, and their speakers live in a comparatively primitive state of civilization.

It is certain that a great deal more will be added to what has already been discovered in this field, but it will be a long time before the subject can be properly treated. The first thing necessary is that all the existing Kolarian languages should be made available to scholars by the provision of grammars, texts, and dictionaries. At present adequate information is available only for three of the languages: Santali, Mundari, and Savara. For the other languages the material available is scanty, and in some cases almost non-existent. It is necessary that this work should be done soon, as languages of this kind are liable to become extinct in the near future under present conditions. When this has been done a comparative study of the whole group needs to be undertaken, and the group itself studied in detail in comparison with the Khasi, Mon-Khmer, and allied languages. On such a carefully prepared scientific basis the study of the Austric element in Sanskrit and the more modern stages of Indo-aryan can eventually be firmly established. At the present rate of progress no one can say when this is likely to be done, but it is to be hoped that the rate will be quicker in the future. As things are it will be easily understood how great is the danger of erroneous and superficial comparisons. I have quoted above a number of examples which seem to me free from reasonable doubt, but not all the suggestions which have been made are in this category, and at present it must be emphasized that this is a subject in which to move with a certain amount of caution.

We now come to the third and most important group of the non-Aryan languages of India, the Dravidian languages. These languages are the most important not only numerically and culturally, but also from the point of view of their influence

on Sanskrit. That is to say a very much greater number of Sanskrit words can be traced to this source than can be traced to an Austro-asiatic source. Even allowing for the fact that these studies are only in their beginning, the fact still remains that the number of Dravidian words in the Sanskrit vocabulary that have already been established as such, is so much greater than the corresponding number for Austro-asiatic, that whatever knowledge is added in the future, the relative importance of the two language groups is not likely to be reversed.

Though the comparative study of the Dravidian languages is not in the state that it should be, it is in a better state than that of the Kolarian languages. In the first place more information is available about the individual languages, although a great deal still remains to be done. The literary languages are naturally well documented, and we have good dictionaries, though the grammatical study of the ancient texts still remains largely a desideratum. Quite a number of the minor languages have also been adequately treated. We are well informed on Brahui, Kurukh, and Kui, moderately on Malto, Kuvi, and Gondi. The greatest gap consists of two of the Central Group of languages—Kolami and Parji—about which we have still practically no information. The minor languages of the south—Toda, Kota, etc.—have recently been studied by Professor M. B. Emeneau, and the results of his work are in course of publication.

A comparative study of the Dravidian and Sanskrit vocabularies soon reveals a large number of common words which are not to be explained as Sanskrit words borrowed into Dravidian, but as Dravidian words adopted by Sanskrit. This is clear because the words in question have no Indo-European etymology, and because the comparative etymological study of Dravidian shows them to belong to the basic vocabulary of that group of languages. Many of the words are, apart from the expected phonetic modifications, almost identical both in form and meaning, so that even with a superficial knowledge it is possible to recognize a great

number of them. The following list contains some of the examples where the identity of the Sanskrit and Dravidian words is striking and obvious :—

Skt. *anala-* fire | Ta. *aṅal* fire; (vb.) to burn, Ma. *anal* fire, heat, Ka. *analu* heat. F. O. Schrader, *KZ* 56 pp. 125-7.

Skt. *ēḍa-* sheep, ram, wild goat | Ta. *yātu, āṭu* goat, sheep, Ma. *āṭu* id., Ka. *āḍu* goat, Tu. *ēḍu*, Tod. *āḍu* id., Te. *ēṭa* ram, Go. *yēṭi* a she-goat, Kui *ōḍa* a goat, Kur. *ērā*, Malt. *ēṛe* id., Brahui *hēṭ* she-goat, female hill-goat. Gt.¹ 519, Kitt.² no. 34, J. Bloch, *BSOS* v, 740; cf. *BSOAS* xi, p. 595.

Skt. *kaluṣa-* turbid | Ta. *kaluṛ* to become turbid, agitated, *kaluṛi* disturbed water, puddle; further Ta. *kalaṅku* to be stirred up, agitated, Ma. *kalaṅṅu*, Ka. *kalagu* id., Kur. *khalakhnā* to disturb, make muddy as water, Malt. *qalge* id., Kitt. no. 358, J. Bloch, *BSOS* v 738; cf. *BSOAS* xi, 132.

Skt. *kāñcika-* rice-gruel, *kāñjika-*, *kāñjī* id. | Ta. *kañci* rice-gruel, Ma. *kaññi*, Te. Ka. Tu. *gañji* id. *BSOS* ix, 717.

Skt. *kuṭ-* to become crooked or curved, *kuṭi-* curvature, *kuṭika-* bent, crooked, *kuṭīla-* crooked | Ta. *koṭu* crooked, *kuta* curved, bent, *kuṭakkam* bend, curve, *kuṭaṅku* to bend, Ma. *koṭu* bent, Ka. *kuḍu* bent, crooked. Cald.³ p. 584, Kitt. no. 360; cf. *TPS* 1945, p. 94.

Skt. *kuṭi* hut, cottage, house | Ta. Ma. *kuṭi* hut, house, home, Ka. *guḍi* house, tent, temple, Kui *kūṛi* hut, etc., *BSOAS* xi, 137.

Skt. *kutt-*, *kuttayati* to bruise, crush, pound | Ta. *kuttu* to strike with the fist, Ka. *kuttu* beat, strike, pound, Malt. *goṭe* to knock, strike, beat, Kur. *khottṇā* to break, etc. *BSOAS* xi, 134.

Skt. *kuntala-* hair of the head | Ta. Ma. *kūntal*, Ka. *kūdal* id. Kitt. no. 9.

¹ Gt. : H. Gundert, *Die dravidischen Elemente im Sanskrit*, *ZDMG* 23 (1869), pp. 517-530.

² Kitt. : F. Kittel, *A Kannada-English Dictionary*, Preface pp. xiv-xlv (List of Sanskrit words of presumed Dravidian origin).

³ Cald. : Robert Caldwell, *A Comparative Grammar of the Dravidian Languages*, Third Edition, London, 1913.

Skt. *kuvalaya*- lotus | Ta. *kuvalai*, Ka. *kōmaḷe*, *kōvaḷ*, *kōḷe* id. *BSOAS* xi, 135.

Skt. *khala*- threshing-floor | Ta. *kaḷam* threshing-floor, open space, Ma. *kaḷam* id., Ka. *kaḷa*, *kaṇa* threshing-floor, Tu. *kala* a square, a bed (of flowers, etc.), Te. *kalanu* threshing-floor, Kui *klai* id., Kur. *khāl* a field, Malt. *qalu* a field on the hills. *BSOAS* xi, 133.

Skt. *khala*- a rogue | Ta. *kaḷ* to steal, *kaḷvan* thief, *kaḷavu* theft, deception, Ma. *kaḷam*, *kaḷavu*, Ka. *kaḷḷa* a thief, Te. *kalla* deceit, *kallari* a rogue, Kur. *khāl*b theft, *khāl*bas thief, Malt. *qalwe* thief, *qalwi* theft, *qalwo* stealthily, secretly. Gt. 522, Kitt. no. 194; *BSOAS* xi, 133.

Skt. *ghūka*- owl | Ta. *kūkai*, Ka. *gūgi*, *gūge*, *gūbe*, Te. *gūbi*, *gūba* id. *BSOS* ix, 721.

Skt. *tāmarasa*- lotus | Ta. *tāmarai*, Ka. *tāmare*, *tāvare*, Te. *tāmara*, Kuvi *tamberi* id. Kitt. no. 100.¹

Skt. *tāla*- palmyra palm, Pkt. also *tāḍa* id. | Ka. *tār* Palmyra tree, *Borassus flabelliformis*, Te. *tāḍu* id. Kitt. no. 101; *TPS* 1945, p. 120.

Skt. *tubara*-, *tuvara*- astringent | Ta. *tuvar* to be astringent; astringency, Ka. *tuvara*, *tovara*, *togaru* astringent, an astringent taste, Kui *torpa* to be astringent. *TPS* 1945, p. 106.

Skt. *nakra*- crocodile | Ka. *negar* crocodile, Tu. *negaru* a sea animal, the vehicle of Varuṇa, *negaḷu* an alligator, crocodile, Te. *negaḍu* id. Kitt. no. 57, J. Bloch, *BSOS* v, p. 739.²

Skt. *nand*-, *nandati* to rejoice | Ta. *nantu* to prosper, flourish, be luxuriant, to be proud, glow with pride or splendour.

Skt. *nāra*- water | Ta. Ma. Ka. *nār* water, Tu. *nāru*, Te. *nāru* id., Kui *nār* juice, sap, essence, Brah. *dār* water. Cald. p. 571, Kitt. no. 157, J. Bloch, *BSOS* v, 739; cf. *BSOAS* xi, 611.

¹ Skt. *tāmarasa*- is a *mleccha*-word according to the *Śābara-bhāṣya* on *Jaimini-sūtra* i, 3, 5.

² Bloch wonders whether these words are connected with Skt. *makara*-alligator, Go. *mugrāl*, Kui *magori* id. The examples given of a Dravidian change *n* > *m*- in *BSOAS* xi, 333-4, and 609, support this view.

Skt. *paṇava-* drum, tabor | Ta. *paṇai* a kind of drum, Ka. *paṇe, paṇa* id.

Skt. *pallī, pallikā* house-lizard | Ta. Ma. Ka. Tu. *palli*, Te. *balli* id. Kitt. no. 59, M. B. Emeneau, *Univ. of Calif. Publ. in Class. Phil.* xii, no. 13, p. 261; cf. *BSOS* xi, 718.

Skt. *pallī* small village | Ta. *palli* hamlet, small village, herdsman's village, Ma. *palli* hut, small settlement of jungle tribes, Ka. *palli* a settlement, abode, hamlet, village, Te. *palli, palliya* a small village, hut, Kur. *pallī* in the compound, *erpā-pallī* house and family. Cald. p. 573, Kitt. no. 233, M. B. Emeneau, *op. cit.* p. 260.

Skt. *punnāga-* Calophyllum Inophyllum | Ta. *punnai* id., Ma. *punna*, Ka. *ponne, punnike*, Tu. *ponne*, Te. *ponna*.

Skt. *puṣpa-* flower | Ta. Ma. *pū* flower, Ka. *pū, puvvu*, Tu. *pū*, Te. *pū, pūvu, puvvu*, Ta. also *pūppu* flowering,¹ Kur. *pūmp* flower, Malt. *pūpu* id. Cald. p. 587, Gt. p. 527, Kitt. no. 110, J. Bloch, *BSOS* v, 740.

Skt. *phala-* fruit | Ta. Ma. *param* fruit, Tod. *pōm* id., Ka. *para* ripeness, *paṇ, paṇṇu* a ripe fruit, Tu. *parndu* a ripe fruit, Te. *paṇdu* a fruit, to ripen, Go. *paṇḍānā* to ripen, Kur. *pañjānā* id., *paṇḍkō* half-ripe. Cald. p. 548, Gt. p. 519, Kitt. no. 111, J. Bloch, *BSL* xxv, p. 17; *BSOS* v, 740. Cf. also Pkt. *poṇḍa* fruit.

Skt. *bīja-* seed | Ta. *vitai, vittu, viccu* to sow; seed, Ma. *vitekka* to sow, *vittu* seed, Ka. *bittu* to sow; seed, Tu. *bittu* seed, *bittuni* to sow, Kot. *vit-* to sow, Te. *vittanamū* a seed, *vittu* id.; vb. to sow, Go. *wītānā* to sow, (Maṛia dial.) *vījā* seed (Lind), Kuvi *vīchaṅga* (Fitzgerald) semen, Malt. *bīchi* seed (Droese). From the same source, Sinh. *bittaraya* egg, seed (Maldivian *bis*).

Skt. *maṣi* ink, lampblack | Ta. *mai* blackness, ink, lampblack, Ka. *masi* dirt, impurity, soot, lampblack, ink, Te. *masi* blackness, soot, charcoal, ink, Tu. *maji* coal, black powder, ink, Kui *māsi* dirt. Kitt. no. 297.

Skt. *māna-* fish | Ta. *mīṇ*, Ka. *mīn(u)*, Te. *mīnu*, Go. *mīn*,

¹ Also 'menstruation'. Compare Skt. *puṣpītā* (*Pādatāḍītika* 40) *puṣpavātī* (ibid. 38, 39), *puṣpinī*, Pkt. (*Sattasāi*) *pupphavāi*, in the same sense.

Kuvi, Kui *mīnu*, Malt. *mīnu* id. Cald. p. 573, Gt. p. 529, Kitt. no. 72, J. Bloch, *BSOS* v, 739; Charpentier, *Monde Oriental* xviii, p. 19.

Skt. *mukūṭa*- crest, diadem | Ta. Ma. *mukātu* top, highest part, head, Ta. *mucci* crown of the head, tuft of hair on the head, Ma. *mukaḷ* top, summit, ridge, roof, Ka. Te. *mogaḍu* ridge of a roof, Tu. *mugili* turret, minaret, top as of a temple, Go. *mukur* comb of a cock. Gt. p. 530; cf. *BSOAS* xi, 131.

Skt. *mukula*- bud | Ta. Ma. *mukir* a bud, Ta. *mukai* to bud; a bud, Ta. *mokkuḷ* a bud, Ka. *muguḷ* a bud; to bud, *mugi* to close as a flower, *moggu*, *mogge* a bud, Te. *moguḍu* to be closed as a flower, *mogga* a bud, Kui *mogo* bud. Gt. p. 530, Kitt. no. 117.

Skt. *muktā* pearl | Ta. *muttu*, *muttam* pearl, Ma. *muttu* a pearl; a kernel, Ka. *muttu* pearl, Tu. *muttu* a pearl, a drop. Gt. p. 529, Kitt. no. 73, P. T. Srinivasa Iyengar, *History of the Tamils* p. 23.

Skt. *muraja*- a drum, Pkt. *murava*- id. | Ta. *muracu* a drum, *muravam* a drum; noise, reverberation, *mural* to sound, Ka. *more* to hum, buzz, Te. *morayu* to sound.

Skt. *lašuna*- garlic | Kui *lesuṛi*, Malt. *nasnu* id. *BSOAS* xi, 614.

Skt. *lālā* saliva, spittle | Ma. *ñōla*, *nōla*, Tu. *ñōli*, *nōṇe*, Ka. *lōḷe*, Malt. *lāli*, Kur. *lāle* id. *BSOAS* xi, 339, 612-13.

Skt. *valaya*- bracelet | Ta. *vaḷai* circuit, bracelet, etc.; vb. to bend; to be round; to surround, Ka. *baḷe* bracelet, *baḷasu* to go round, encircle, encompass. Cald. p. 574, Gt. p. 520, Kitt. no. 299.

Skt. *velā* limit, boundary, sea-shore; time, occasion | Ta. *vēlai* boundary, sea-shore, *vēli* fence, Ma. *vēli* hedge, fence, Tu. Ka. *bēli*, Kot. *vēḷ* fence, Go. *velum* fence (Patwardhan). Kittel no. 411.

Skt. *śakala*- scales of a fish; bark, *śalka*-, *śalkala*- id. | Ta. *cekil* skin or rind of fruit; fish-scales, *citaḷ*, *cetiḷ* id., Tu. *caguḷi* the rind of a fruit or vegetable, Malt. *cheglo* the rind of a fruit.

Skt. *śava*- corpse | Ta. *cā* to die, *cāvu* death, Ka. *sā* to die,

sāvu death; a corpse, Te. *caccu* to die, *cāvu* death, etc. Cald. p. 574, Gt. p. 529, Kitt. no. 331.

Considering how many words there are in which the relationship of Sanskrit and Dravidian is fairly obvious, it is not surprising that attention was early turned to this subject. Caldwell devotes a section of his work on Dravidian¹ to such words, and Gundert in an article published in 1869¹ gives a list of words which he considers Sanskrit to have acquired from Dravidian. Later (1894) Kittel published a long list in the preface to his Kannaḍa-English dictionary. Yet in spite of the efforts of these scholars Sanskritists and, to a greater extent still, students of Indo-european continued to ignore this side of their subject. Thus one would not gather from Uhlenbeck's Sanskrit Etymological Dictionary that anything at all had been done in this direction, and it would be easy to collect from the specialist literature a large number of misguided attempts at providing Indo-european etymologies for words for which good Dravidian etymologies had already been pointed out.² The reason for this was partly the almost complete neglect during this period of Dravidian philology itself, and partly the lack of scientific method which is visible for instance in Kittel's treatment of the subject. In his list the true tends to be hidden among the false, and it is not surprising if those who had not the means of independent judgment were inclined to ignore the whole.

Since Kittel's Dictionary very little work has been done on this subject. Most worthy of note are two articles by Jules Bloch,³ who approaches the subject with rather excessive scepticism and caution.

It is now time to say a few words on the principles to be followed in deciding whether a word common to both is

¹ *Op. cit.*

² A good example is the derivation of *eda*-sheep out of **ṛzd*:- *meda*-, K. F. Johansson, *IF*. ii, p. 35. See further p. 18 ff.

³ *Sanskrit et dravidien*, *BSL* xxv (1924), pp. 1-21; *Indo-aryan and Dravidian*, *BSOS* v (1929), pp. 730-744.

originally Sanskrit or Dravidian. The first and most obvious essential is of course to make sure that the word has no Indo-European etymology. Since the Indo-European vocabulary of Sanskrit has been long worked out and established, and as it is hardly likely that much that is new remains to be found in this field, the investigator with even a moderate knowledge of Indo-European linguistics is here on fairly safe ground, and can proceed with reasonable confidence. The question that next arises is whether a Sanskrit word of unknown etymology may not itself have been borrowed into Dravidian and not necessarily be derived from that source. This kind of thing of course happens endlessly, since in the dictionaries of Tamil, Malayalam, Kanarese, and Telugu the Sanskrit vocabulary is appropriated wholesale. But in the case of the words we are discussing there are reasons to show that this has not happened, and they are briefly summarized here.

Firstly the currency of the word in the Dravidian languages is to be considered. If a word occurs widely in Dravidian and is of the nature of a basic element in the vocabulary a corresponding word in Sanskrit, if without Indo-European etymology may reasonably be considered a borrowing from Dravidian. Thus Dravidian *mīn* fish and *nīr* water, from which Skt. *mīna-* and *nīra-* are derived, are words which occur, if not in all, at any rate in the great majority of the Dravidian languages, and further it is evident to a comparative student of these languages that they are the basic Dravidian words for denoting these things. Similarly in the case of the word for crow :—

Skt. *kāka-* | Ta. *kākkai*, Ma. *kākka*, Ka. *kāke*, *kāge*, Tu. *kaḷke*, Te. *kāki*, Kui *kāva*, Go. *kāwāl*, Kur. *khākhā*, Malt. *qāqe*, Brah. *khākhō*, Kitt. no. 40; *BSOAS* xi, 133. The universality of the word in Dravidian is evidence for the derivation from this source of the Sanskrit word, which otherwise might be thought to be onomatopoeic. The same applies to the Dravidian words corresponding to Skt. *ēda*-sheep, *kutt-* to pound, *paṇḍa* eunuch, weakling (*TPS* 1945, p. 109), and so forth.

Secondly a word is shown to be Dravidian if it is clearly to be derived from some Dravidian root. Take for instance the word for 'sandal-wood':—

Skt. *candana*- sandal wood, tree, powder or ointment | Ta. *cāntu* pigment, paste, sandal paste; sandal tree, *cāntam* sandal, *cāttu* to daub, smear, anoint, Ma. *cāntu* a kind of ointment or paste of sandal, etc. Ka. *sādu* a fragrant substance, perfume, Tu. *sādi*ke smearing, Te. *cādu* to rub into a paste; sb. a beauty spot (of paste).

Here the Dravidian word for sandal is quite clearly seen to be native since it is etymologically connected with other words meaning 'to rub into a paste', and the specific meaning 'sandal' has developed out of a more general meaning.¹ Many similar examples can be quoted. Ka. *sāvu* death; corpse is derived from the Dravidian word *sā* to die, so if it is to be connected with Skt. *śava*- a corpse, it can only be done by assuming that the Sanskrit word has been borrowed from Dravidian and not vice versa. Ta. *vaḷai*, Ka. *baḷe* bracelet, are transparently derived from a verb meaning 'to surround, encompass', so they cannot be borrowed from Skt. *valaya*-; it must be the other way round.²

A third point to be considered is the antiquity of the word in Dravidian. In so far as this is inferable by comparative study it has already been touched on under point one. But apart from this literature in the case of Tamil takes us back as far as the early centuries of the Christian era, and to a period when Indo-aryan influences, linguistic and otherwise, were comparatively restricted. The number of Sanskrit

¹ That the sandal is native to Malabar is a commonplace of Skt. literature: *Śakuntalā*, Act iv, *kadhā dāni tādassa aṅkādo paribhaṭṭhā Maloapavva-dummūlīdā via candanalādā desantare jīvidaṃ dhāroṣṣaṃ, Kāvya-mīmāṃsā* p. 81, *Tāpāpaharacāturo nāgāvāsah surapriyah | nānyatra Malayād adrer drśyate candanadrumah*, and so forth. The Dravidian verb, Ta. *cāttu*, Te. *cādu*, seems also to have been adopted in the Sanskrit word *ucchādana*- or *utsādana*- rubbing the body with oils or perfumes, which cannot be referred to a Sanskrit root.

² There is, of course, a Skt. verb *val-* to go round, etc., but it only appears ate, and therefore itself almost certainly borrowed from Dravidian.

loanwords in the early texts is surprisingly small, and consequently the occurrence of a word in Tamil so early is an argument for its being Dravidian; if on the other hand it only appears late it is more likely to have been borrowed. There is a word for 'creeper' common to both Dravidian and Sanskrit :—

Skt. *vallī* | Ta. Ma. *valli*, Ka. *balli*, Te. *valli*. Kitt., *IA* i, p. 235. The Tamil word is common in the early literature, and not among the type of words that are borrowed from Sanskrit at this period. They are cultural and technical words,¹ whereas *valli* is a term for a common natural object, and such words are not borrowed at this period. Later *valli* with a different *-l-* is adopted from Sanskrit. For 'coral' we have :—

Skt. *pravāla-* | Ta. *pavaṛam*, *pavaḷam*, Ma. *paviṛam*, Ka. *pavaḷa*, Tu. *pakala*, *pavaḷa*, Te. *paḡaḍamu*, *pavaḍamu*, Kuvī *pagneḷu*.

The Tamil word occurs in the earliest texts, and coral is prolific on the coasts of South India, so we may reasonably consider Sanskrit to be the borrower. In the case of a word meaning 'cheek' :—

Skt. *kapola-* | Ta. *kavul* cheek, elephant's temple or jaw, Ma. *kaviḷ*, the Dravidian word occurs apparently only in Tamil and Malayalam, but it is ancient in Tamil and therefore almost certainly genuine. The Sanskrit word, which has no IE etymology, may therefore be derived from this source.²

Just as the comparative antiquity of a Tamil word increases the likelihood of its being genuine, so the comparative lateness of the appearance of a word in Sanskrit makes it more likely that it has been borrowed. Skt. *ghūka-* owl is quoted only from very late works, whereas Ta. *kūkai* id., is recorded in the earliest texts, that is to say a good deal earlier than the corresponding Skt. word. Skt. *pallī* lizard, is quoted only

¹ Ta. *aracaṅ* king, *tūtu* messenger, *tavaci* ascetic, *teyvaṃ* divinity, *taccaṅ* carpenter, *nēmi* felly of a wheel, *kammiyaṅ* smith, mechanic, and so forth.

² There are, however, some similar Austro-asiatic words quoted by S. K. Chatterjee, *Pre-Aryan and Pre-Dravidian in India* p. xxii.

from a comparatively late lexicon. The fact that words are found only in lexicons, which means that they had never a very wide currency in Sanskrit, also points to their being loanwords. Another instance is:—

Skt. *kūpuṣa-* bladder | Ta. *koppuḷam* bubble, blister, bladder, Ma. *koppul*, etc.; cf. *BSOAS* xi, 355.

Fourthly the phonetics of the words in question may often be used to establish that a word is originally Dravidian. Take for instance a word meaning 'jasmine':—

Skt. *mallikā* jasmine | Ta. *mullai*, Ma. *mulla*, Ka. *molle*, Te. *molla* id. *BSOAS* xi, 139.

There is no reason why a Sanskrit *-a-* should give Tamil *-u-*, Ka. Te. *-o-* if Dravidian were the borrower, but assuming that Sanskrit is the borrower, the correspondence is natural: Sanskrit has no short *o* and consequently has substituted short *a*. The same has happened in the case of a word meaning 'flesh':

Skt. *pala-*, *palala-* flesh | Ta. *pulavu* flesh, raw meat, *pulāl* id., Te. *pola*, *polasu* flesh, meat. *BSOAS* xi, 139.

There is a similar correspondence between Sanskrit short *a* and Dravidian *e* in the following word which is originally Dravidian:—

Skt. *arka-* *Calotropis gigantea* | Ta. *erukku*, Ma. *erikku*, Ka. *erke*, *ekke*, *yakka*, Tu. *ekkamāle*, *ekkame* id. Kitt. no. 83. In the case of the name of the tree *Pandanus odoratissimus*:—

Skt. *ketaka-* | Ta. *kaitai*, *kaital*, Ma. *kaitā*, Ka. *kēdage*, Te. *gēdage*, the diphthong *-ai-* in the Tamil and Malayalam words is an indication that the word is originally Dravidian.

Consonants as well as vowels peculiar to Dravidian are also useful as an indication. Thus *r* in Ka. *tār* palmyra palm, Te. *tāḍu*, Skt. *tāla-*, and also a word meaning 'black':—

Skt. *kāla-* black | Ta. *kār* blackness; blemish, fault, defect, Ka. *kār* blackness, *kargu* to turn black. Gt. 520, Kitt. no. 172, J. Bloch, *BSOS* v, 738. Likewise *r* in Ta. *karai*, *karavu* tax: Skt. *kara-* (*TPS* 1945, p. 88) and Ta. *pōrru* worship, adore, honour: Skt. *pūj-* (*TPS* 1945, p. 114).

Again when the word in its Sanskrit form has suffered from

assimilation or loss of consonants, it is clear that Sanskrit, not Dravidian, is the borrower. Instances are Skt. *puṅkha*-feathered part of an arrow : Ta. *puruku*, Ka. *piḷku* (TPS 1945, p. 110), Skt. *uñch-* to glean, *proñch-* to rub, wipe : Ta. *uriñcu* to rub, scrape (TPS 1945, p. 85). Further :—

Skt. *campaka*-*Michelia champaka* | Ta. *ceṇpakam*, *caṇpakam*, Te. *canupaka* (beside *campaka*, *sampega*) id.

Skt. *ankola*-*Alangium hexapetalum* | Ta. *aṛiñcīl*, Ma. *aṛiññīl* id. BSOAS xi, 131.

Skt. *kajjala*-soot, lampblack | Ta. *karical* blackness. From the Sanskrit side phonetic irregularities may point to a word being borrowed :—

Skt. *kulpha-*, *gulpha-* ankle | Ta. Ma. *kuḷampu* hoof of an animal, Ka. *koḷagu*, *koṇagu* the hoof of a beast, whether cloven or not.

The alternation between surd and sonant is rare and irregular in Sanskrit, but a common phenomenon in Dravidian, and suggests that the word is derived from this source. Similarly the fluctuation in the initial in the case of Skt. *jaṭā* matted locks; fibrous roots, *saṭā*, *saṭā* matted locks; mane of a lion, and possibly *chaṭā* collection, heap, is reminiscent of Dravidian conditions, and consequently it is reasonable to regard Ta. *caṭai* matted locks; fibrous roots; thick bunch, Ka. *jade*, *jede* matted hair, are native Dravidian words and that Sanskrit has borrowed.

Fifthly a comparison of the meanings of the Sanskrit and Dravidian words is often useful. For instance :—

Skt. *śaṭha*-fraudulent, deceitful; a cheat, rogue | Ka. *cotta*, *cotta*, *sotta*, *sotta* crookedness, *saṭi*, *sete*, *seḍe* to become crooked or bent, Te. *coṭṭa* crookedness, lameness.

The meaning 'deceitful' develops secondarily from the meaning 'crooked', and this shows Dravidian to be original. Likewise in the case of the following :—

Skt. *malla*-wrestler, athlete | Ta. *mallan* strong, powerful person, warrior, commander, military chief, youth, inhabitant of agricultural or hilly tract; the fact that the Tamil word

has a much wider meaning than the Sanskrit is in favour of its being genuinely Dravidian. On the other hand Ta. *mallan* wrestler, pugilist, with a meaning identical with Skt. *malla-* is to be regarded as a loanword. Such are some of the general principles according to which one may proceed, and in addition there are the particular arguments which arise in the case of each individual word. On the whole it is possible to arrive at a considerable degree of certainty, although there are always some cases about which it is difficult to be sure.

For the greater part of the loanwords in Sanskrit there has been no serious attempt to find an Indo-European etymology. For quite a number obviously weak or bad etymologies have been proposed. In some cases, though very few, the claims of Indo-European and Dravidian are nicely balanced, so as to leave room for difference of opinion as to the real origin. Lidén, *KZ* 40, 260, explained Skt. *pallī* lizard as a fem. of **palla-*, a Pkt. form out of **padla-* < **padra-* ' (a snake) with legs '. All the intervening stages, phonetic and semantic, are purely hypothetical, and it is certain that anyone who was acquainted with the fact that such a word was widespread in Dravidian, would not have wasted time proposing such an etymology. Further examples :—

Skt. *tūla-* cotton; down (*haṃsa-tūla-*) | Ta. Ma. *tūval* feather, down, etc. *BSOAS* xi, 348.

This has been derived (*WP* i, 709) from the root *tū-* to be big, strong, thick, and connected with words as different in meaning as Gk. *τὺλλη*, *τὺλος* swelling, hump, and Alb. *tul* a piece of flesh without bones. The Dravidian words are identical in meaning, and obviously provide a much better etymology.

Skt. *kōraka-* bud | Ta. *kuṛai* sprout, shoot, Kui *kōru* new shoot or bud, Go. *kōṛsānā* to sprout, Kur. *khōrnā* to shoot out new leaves, *khōr* leaf-bud, new leaves, Malt. *qōroce* to sprout. *BSOAS* xi, 135.

The Sanskrit word has been connected (Petersson, ap. *WP* i, 371) with a whole host of words which have nothing to do with it, all supposed to be derived from a root *geu-*

to bend. On the other hand the Dravidian etymology strikes us as correct at once.

Skt. *mayūra*- peacock | Ta. Ma. *mayil*, Tu. *mairu*, Kot. *māl*, Tod. *mārsh*. *BSOAS* xi, 608-610.

There is a vague derivation of Skt. *mayūra*- from a root *mei*- to cry, which is obviously worth little in view of the Dravidian words.

Skt. *śrabha*- and *śrabhaka*- names of snakes, *śira*- boa constrictor | Ta. *cērai*, *cārai* rat-snake, Ma. *cēra*, Ka. *kēre*, *kyāre*, Tu. *kēre*, Te. *sāre-pāmu* id. Kitt. no. 78.

The derivation of the Skt. words from a root meaning black (*WP* i, 361: Skt. *śyāva*-, etc.) is nothing but a mere possibility; on the other hand the Sanskrit and Dravidian words are very close, both in form and meaning.

Skt. *bala*- strength | Ta. *val* strong; strength, *vallai* strength, power, *vallān*, *vallōn* a strong man, *valam* strength, power, *vali* id.; (vb.) to be strong, hard; to overpower, *valuppu*, *valumai* strength, Ma. *val* strong, powerful, Ka. *bal* strong, firm, big, *bali* to grow strong, *balume*, *baluhu* strength, power, *ballitu* that which is strong, firm, etc. Tu. *balu* big, powerful, *balime* strength, *bala* id., Te. *vali*, *valuda* big, etc. *Cald.* p. 587, Kitt. no. 398.

It is exceedingly doubtful whether Indo-european possessed the letter *b*. The current etymology Skt. *bala*-, Gk. *βελτίων*, Lat. *debilis*, OB. *bolje* magis, plus, is one of the examples quoted. The Latin word can alternatively be explained as from **de-hibilis*, the Gk. word by comparing Cretan *δέλτον ἀγαθόν*. The Dravidian words are certainly native and not derived from Sanskrit. There is a stronger case for deriving the Sanskrit word from Dravidian than for reconstructing this doubtful Indo-european root.

Skt. *daṇḍa*- stick, cudgel; stalk, stem, handle | Ta. *taṇṭu* stalk, staff, Ma. *taṇṭu* id., Ka. *daṇṭu* stalk, *daṇḍa* staff, Tu. *daṇṭu* stalk, *daṇṭe* walking staff, stick, *daṇḍu* stalk; oar, paddle, *daṇḍa* stick, Te. *daṇṭu* stalk; cf. also Ta. Ma. *taṭi* stick, staff, Ka. *taḍi* a thick staff, cudgel, *daḍi*, *daṇḍi* id. A. Master, *JBBRAS* v (1929), p. 107.

The Skt. word is classically compared with Gk. δένδρον tree, and this could be justified as an instance of dialectal phonetic change (R. L. Turner, *JRAS* 1924, p. 566: cf. *āṇḍa-*, *caṇḍa-*). On the other hand the Dravidian words, although to some extent influenced latterly by Sanskrit, are fundamentally a native group. We might have here a case of accidental similarity, but the fact that the effect of Dravidian on the Sanskrit vocabulary is so very extensive, does weigh in favour of Dravidian origin.

A special class of words for which some very doubtful Indo-European etymologies have been proposed consists in those supposed to contain an irregular, Prakritic cerebral.¹ There are of course in Classical Sanskrit a certain number of Prakritic forms such as *bhaṭa-* soldier, *bhaṭta-*, *bhaṭṭāraka-* lord, etc. The same principle has been applied even to words occurring in the *Rgveda*, as well as to a great number of other words of doubtful etymology. In many cases such etymologies are very dubious or palpably false, in a considerable number the words turn out to be of Dravidian origin. Such are *kuṭīla-* crooked: Ta. *koṭu*, etc., *kuṭi* house: Ta. *kuṭi*, Skt. *kūṭa-* in its various senses, Skt. *puṭa-* basket of leaves (*TPS* 1945, p. 111). Skt. *kaṭu-* pungent, sharp, bitter, is derived from the Dravidian word which appears as Ta. *kaṭu* severe, pungent, sharp, bitter, Ma. *kaṭu* extreme, impetuous, fierce, *kaṭukka* to grow hard, sharp, worse as pain, Ka. *kaḍu* intense, vehement, severe, Tu. *kaḍu* pungent, severe, extreme, Te. *kaḍu*, *kaḍidi* excessive, extreme, difficult, hard, Kui *kaṭi nōmeri* a severe fever, *kaṭru kōu* a species of fruit with a pungent taste, *krō* pungent, Malto *qarqe* bitter, Kur. *kharkhā* bitter; pungent, hot as spices; harsh, cutting, as words. With Sanskrit *kaṭa-* mat, we can compare Go. *kaṭṭi* a palm leaf mat which can be derived from Dravidian *kaṭṭu* to tie, fasten together, construct. Skt. *kaṭa-* in *vikāṭa-* huge, extensive, *saṃkaṭa-* narrow, *utkāṭa* high, immense, is probably to be equated with Ta. *kaṭai*, Ma. *kaṭa*, Ka. Tu. *kaḍe* end; side, direction, as

¹ These are collected by Wackernagel, *Altindische Grammatik* i, § 146.

certainly is *kaṭa-* in Skt. *kaṭākṣa-* side-glance: Ta. *kaṭaikkan*, Ka. *kaḍegaṇ* id. (Kitt. no. 350). Skt. *kunḍa-* pot, vessel; pit, is derived from Dravidian (F. B. J. Kuiper, *BSOS* ix, 691 ff.; cf. *BSOAS* xi, 138) and has naturally nothing to do with Gk. *κυλινδω* to roll. Skt. (Buddh.) *aṅṭhati* to visit, is not derived from *arthate* but from Dravidian, Ta. Ma. *aṅṭu* to approach, come in contact with. Even when no Dravidian correspondences have been pointed out, this type of etymology is often obviously unsound. It is not possible to reconstruct an Indo-european word on the basis of a hapax legomenon in Sanskrit and a rare Gk. dialect word as is done in the case of Skt. *keṇata-*: Gk. *καιατα*. Skt. *kāṭa-* hole, is explained as being out of *karta-* id., no doubt rightly; but the variant form *garta-* shows the word to be foreign to Aryan (probably Dravidian: cf. *kulpha-*, *gulpha-*) and the phonetic development here will be one that has taken place outside Indo-aryan. When the Dravidian elements have been picked out, and the other false etymologies discarded, very little remains out of this collection of so-called Prakritic cerebrals in Sanskrit.

This is enough to illustrate the kind of false etymology which tends to be produced by studying Sanskrit purely from the Indo-european point of view. It would be easy to multiply examples, but it is sufficient here to emphasize the importance of the loanword question in Sanskrit from the point of view of Indo-european studies. For the correct understanding of Indo-european it is necessary that all non-Indo-european elements in the individual languages should be rigorously excluded. This has certainly never been completely done in the case of Sanskrit, and presumably the same thing applies in the other branches too. In the case of Sanskrit the position is very favourable for doing this, because the languages from which Sanskrit has drawn, particularly the Dravidian group, are still available for study. It is not so easy to do this in the case of other languages, where such materials are not available, but a lesson may be drawn from Sanskrit as to the kind of bad etymology which

should be avoided, and in particular Indo-europeanists should continually bear in mind, which they have never done to the proper extent, that all the languages since the beginning of their separate existence, and primitive Indo-european itself, have always been liable to the influence of foreign languages. To study the Indo-european languages without a lively awareness of this fact, merely from the point of view of Indo-european itself can only lead to a series of pitfalls not only in matters of detail but also in matters of principle.

The adoption of Dravidian words by Sanskrit has already begun by the time of the *Ṛgveda*, and continues throughout the later stages of Sanskrit, and is continued in the Middle and Modern Indo-aryan languages. The Dravidian words that occur in the *Ṛgveda* are specially interesting. Of the words already mentioned in this paper the following are found in the *Ṛgveda*: *kaṭuka-* bitter, *kuṇḍa-* pot, *kulpha-* ankle, *kūṭa-* mallet, *khala-* threshing-floor, *daṇḍa-* stick, *puṣpa-* flower, *phala-* fruit, *bala-* strength, *bīja-* seed, *mayūra-* peacock; in addition we have *lāṅgala-* plough (*BSOAS* xi, 131, 603), *muñja-* a kind of grass (*BSOAS* xi, 609), *ukha-* a part of the body (*TPS* 1945, p. 85), *pūj-* to honour (*TPS* 1945, p. 114). To these we can add:—

Skt. *araṇi-* stick for kindling fire by rubbing | cf. Ta. *arai* to rub, grind, Ma. *arekka* id., Ka. *are*, Tu. *arepuni* id., Te. *rācu* to rub, grind.

Skt. *ulūkhala-* mortar | Ta. *ulakkai* pestle, Ma. *ulakka*, Ka. *olake* id., Te. *rōkali* a large wooden pestle. J. Bloch, *BSOS* v, 742.

Skt. *karambha-* flower or meal mixed with curds, a kind of gruel | Ta. *kuṛampu* to be stirred up, mixed; (sb.) a mixture, liquid of thick consistency such as sandal paste; thickened curry, broth, Ma. *kuṛayuka* to be mixed as pap, *kuṛampu* thickened fluid.

Skt. *kāṇá-* blind in one eye | Drav. (Ta., etc.) *kāṇā* negative participle of *kaṇ-*, *kāṇ-* to see. Gt. p. 521, Maṛia Go. *kānā* blind (Lind.).

Skt. *kuṇāru-* having a crooked or withered arm, cf. later

kunī- id. | Ta. *kunakku* crookedness, *kunalai* bending of the body: Ta. Ma. Ka. *kōṇ* crookedness; angle ~ Skt. *koṇa*-angle, corner. *BSOAS* xi, 341.

Skt. *kulāya-* n. nest | Ta. *kuṛām*, *kuṛāam* crowd, flock, shoal, from vb. *kuṛu* to assemble. Cf. Ta., etc., *kūtu* vb. to assemble, *kūtu* sb. nest.

Skt. *kūla-* herd, troop, flock, etc. | Ta. *kuṛu*, *kuṛuvu*, *kuṛū* assembly, flock, herd, swarm, *kuṛumu* to flock together. *BSOAS* xi, 139.

Skt. *naḍá-*, *naḷá-* reed | Ka. *naḷlu* reed, Ta. *nānal*, Ma. *ñānal*, Ka. *nānal* id. [$< *ñālal$], cf. Ta. *ñeḷ* to be hollow, *ñeḷḷal* a hollow, Tu. *nalle* a hollow, *nalli* shinbone (cf. Skt. *naḍaka-* the hollow of a bone), Ka. *naḷlu* a nalla, or depression in the ground (cf. Hi. *nālā*, etc., in this sense).

Skt. *piṇḍa-* lump, clod, etc. | Ka. *peṭta*, *pette*, *peṇte*, *hente*, *heṇde* a clod, lump of earth, Te. *peḍḍa*, *pella* id., Te. *piṇḍali* a lump or mass, Ka. Te. *piṇḍu* to squeeze together.

Skt. *bīla-* hole, cave | Ta. *viḷavu* cleft, crack; vb. to split, *viḷ*, *villu* to crack, split, Ma. *villu* to crack, burst open, *villal* a hollow, rent, *villu* a crack, aperture.

Skt. *maṇḍūka-* frog. | The frogs' habit of sleeping in the ground during the dry weather, and waking up in the rains is the subject of one Vedic hymn (vii, 103). The word can be derived from the Dravidian words *maṇ* earth (Ta. Ka., etc.), and Ta. *tūṅku* to nod, sleep (among other meanings), Ma. *tūṅṅu*, Tu. *tūṅguni*, Ka. *tūgu*, etc. Drav. $ṇ + t$ produces *-ṇḍ-* in *sandhi*.¹

Skt. *vriś-* finger, RV. i, 144, 5 | Ta. Ma. *viral* finger, toe, Ka. *beral*, Tu. *bireḷy*, Te. *vrēlu*; Kui *vanju*, pl. *vaska*, Kuvi *wansu*, pl. *waska* (Schulze), Go. *wirinj*, pl. *wirisk*, Go. (Maṛia) *vers* pl. *versku* (Lind.). The Sanskrit word is closer to the form that appears in the Central Dravidian languages than to the form in the Southern Group.

¹ Skt. *maṇḍūki* a particular part of an elephant's leg (Pālakāpya, ed. A.S.S. p. 529) is quite a different word from this, and also of Dravidian origin. Compare Ta. *maṇṭi* kneeling, Ka. *maṇḍi* what is bent; the knee, Tu. *maṇḍi* knee, Go. (Maṛia) *meṇḍā* the knee, Kui *menda* id.

Here are some twenty-five words. It is not many, compared with the number in later Sanskrit, but it is enough to show that the process had already begun at this early period. This is of particular importance on account of the historical conclusions we are enabled to draw. At the time of the *R̥gveda* the Indo-aryans had not penetrated far into India, and were separated by large tracts of territory from what is now the most northerly boundary of the main body of Dravidian languages. The Dravidian words in the *R̥gveda* are evidence that at one time the Punjab and adjacent areas were at this ancient period occupied by Dravidian-speaking peoples. This confirms the conclusions that have been drawn from the position of the isolated Brahui language in Baluchistan, and makes it exceedingly unlikely that they have wandered there as a nomadic tribe from some other part of India. These words, and the continual adoption later of Dravidian words, make it necessary to conclude that the greater part of Northern and Western India, now Aryan-speaking, was originally Dravidian-speaking. The Kolarians also appear in the *R̥gveda*, and there is no doubt that they had by this time pushed up the Ganges valley, so as to meet the oncoming Aryans. But their influence on Sanskrit was never on anything like the same scale as that of Dravidian, which means that they cannot have formed a major element of the population in this part of the country.

The adoption of Dravidian words by Sanskrit continues steadily throughout the whole history of the language. At each later stage more such words are found. The great majority have become established by the time of the epic poems, *Mahābhārata* and *Rāmāyaṇa*, and of these a large proportion are first quoted from these texts. In Prakrit we find additional Dravidian words which are not known to Sanskrit, and again in the modern Indo-aryan languages there are Dravidian words which are not recorded earlier in Indo-aryan. These words have not in the main been taken from the existing South Dravidian languages, although in many cases these are the only languages which we are in a position

to quote. The source of the main body is to be sought rather in the extinct Dravidian dialects which have been replaced in large areas of India by Indo-aryan. There are now islands of Dravidian speech in the central and northern parts of India, gradually being overwhelmed by Indo-aryan. In earlier times these Dravidian areas must have been bigger and more numerous, with Indo-aryan spread more thinly. This is why we find the influence of Dravidian on Indo-aryan so great, and also why it has continued to be active during each successive period. It also makes more complicated the business of defining the Dravidian element in the Sanskrit vocabulary. The particular languages or dialects from which most of these words are derived are no longer available; we can only find those words which they shared with other Dravidian languages, particularly the cultivated and well preserved languages of the South. But there must have been many words current in the ancient Dravidian as once spoken in the Punjab, Rajputana, and Western India, to which the counterpart is not to be found in the existing languages. Likewise it is to be expected that there will be in Sanskrit not a small number of Dravidian words, which it is not now possible to trace.

Just as Sanskrit has been influenced by the non-Aryan languages of India, in the same way it would not be surprising if these languages, namely the Dravidian and Kolarian families, had mutually influenced each other. In the present condition of the study of these languages, this is a subject which it is not possible to tackle properly, but there is one word which deserves consideration in this respect and that is Skt. *lāṅgala-*, Pa. *naṅgala-* plough. The corresponding Dravidian words are very close in form—Ta. *ñāñcil*, *nāñcil*, Ma. *ñēññōl*, Ka. *nēgal*, *nēgīl*, Tu. *nāyery*, Tod. *nēkhel*, Te. *nāḡali*, *nāḡēlu*, Go. *nāṅgēl*, Kui *nāṅgeli*—so that it would be natural to assume that the Indo-aryan was borrowed from Dravidian. On the other hand Przyluski¹ has pointed out

¹ *Pre-Aryan and Pre-Dravidian in India* pp. 8 ff. His further attempts to connect Skt. *liṅga-*, *lāṅgāla*, etc., with this word are of course fanciful.

some Austro-asiatic words that appear very similar and claimed them as the origin of the Sanskrit word. The words he quotes are Khmer *aṅkāl*, Čam. *laṅan*, *laṅal*, *laṅar*, Khasi *kalyṅkor*, Malay *tengala*, *taṅgāla*, Batak *tiṅgala*, Makassar *naṅkala*. The connection of these words with the Sanskrit and Dravidian words is obvious as also with Santali *nahel*, Muṅdari *nāel*. The word is clearly Austro-asiatic, since it is built up by a series of varying prefixes on a base **kal* or **kel*. The simple form appears in Sanskrit as *hala-* plough with a change $k > h$ which is characteristic of Santali and the neighbouring Kolarian languages. In this case Dravidian has borrowed from Austro-asiatic. Sanskrit has acquired the word either directly from an Austro-asiatic source, or equally possibly from an intermediate Dravidian source.

Another word which Tamil has acquired from an Austro-asiatic source is *iñci* ginger. In this case the Sanskrit word *śṛṅgavera-* contains apparently as its second element the Dravidian word, Ta., etc., *vēr* root, an indication that here too Dravidian is the intermediary between Austro-asiatic and Sanskrit. Mention has also been made of Ta. *pañci* cotton, which seems to be of Austro-asiatic origin, and no doubt full investigation would reveal more instances of this kind as well as instances of the reverse kind, namely the influence of Dravidian or Kolarian.

In speaking of the Kolarian languages it was pointed out that they were connected with languages to the east of India. The connections of the Dravidian languages lie in the opposite direction. Bishop Caldwell, who first studied these languages comparatively, maintained that they were related to the Finno-ugrian or Scythian languages as he called them, and collected some evidence to support this. Later F. O. Schrader published an article in support of the same point of view, and more recently I have studied the comparative vocabulary dealing with the parts of the body, and this shows a wide degree of correspondence. This theory has not yet become an established tenet of linguistic science, although the theory of the north-western origin of the Dravidians has found its

way into most of the history books. The reason for the failure of this theory to become generally established, is not so much lack of evidence and material for proof as the fact that practically no work has been done on the subject, and that Dravidian philology has always remained a neglected subject. Suffice it to say here that the correspondences between the two language families are so numerous and far-reaching that they cannot well be explained any other way than by the theory of common origin. From the point of view of the subject of the present paper it will be necessary ultimately when the Dravidian loanwords in Sanskrit are treated in a complete and final way, to give not only the immediate Dravidian etymologies, but also the further Uralian etymologies where such are to be found. At present it will be sufficient to give a few examples by way of illustration.

Skt. *músala*- pestle | Ka. *mase*, *masagu* to rub, grind, Kur. *masmasr*- to shampoo, Go. *masītānā* to sharpen, *masol* whetstone, J. Bloch, *BSOS* v, 741; also with rhotacism Ta. *maruku* to be crushed, pounded || Fi. *musertaa* to crush, pound, Hu. *muszolni*.

Skt. *kaśāya*- astringent, Pa. *kaśāya*-, *kaśāva*-, and Pa. *kaśaṭa*- bitter, acrid, nasty | Ta. *kai*, *kaya*, *kaca* to be bitter, *kayar*, *kacar* bitterness, Ka. *kay*, *kasa*, *kasaru*, *kasi*, *kahi*, Tu. *kaipe* bitterness, *kasa* brackish, Te. *cēdu*, *cēti* bitter, *kasu* raw, unripe, *kasūgāya* an unripe fruit, *kasuru* id., Kuvi *kasa* sour, Go. *kehke* bitter, Malt. *qase* to become bitter, insipid or vapid || Fi. *katkera* acer, amarus, Kar. *kačkera* id., LpN. *guocca* putridus, Cher. *kočo*, *kača*, *kātšə*, etc., bitter, sour, Voty. *köš*, Hg. *keszerű*.

Skt. *tarala*- unsteady, trembling, tremulous | Ka. *teral* to move, shake, tremble, quiver, Te. *teralu* to move, toss about, *taralu* to stir, move, etc., *TPS* 1945, p. 106 || SamO. *tarelnay* zittern, Osty. *toreŋ* zitternd, *torilem* zittern, MdM. *terəms* vibrieren, beben.

Skt. *lālā* saliva, spittle | Ma. *ñōla*, *nōla* spittle, saliva, Tu. *ñōli* anything sticky, gummy, glutinous, viscous; saliva; phlegm, *nōne* saliva, spittle, Ka. *lōle* saliva, slaver; tenacious

mucus, phlegm, Malt. *lāli* spittle, Kur. *lāle* id. || Hg. *nyāl* saliva, *nyálka* saliva, mucus, Fi. *nila* lubricum quid, pituita, *nilja* id., Est. *nõlg*, g. *nole* rotz, MdE. *noigo*, M. *noigo* id. Zyr. *nileg* schleim; schleimig, schlüpfrig, LpN. *nivle* schleim. *BSOAS* xi, 339.

Skt. *tūla*- cotton, *hamsa-tūla*- the soft feathers or down of a goose | Ta. *tūval* feather, down, etc., Ma. *tūval* a feather, a painter's brush, *toppal* feathers, Tod. *tūf* pen, feather, etc. | Fi. *sulka* feather, LpN. *dolgge* id., Md. *tolga*, Cher. *tol* id., Zyr. *tyl*, *tyv* feder, flugel, Vog. *taul*, *tawel*, id., Hg. *toll* feather, pen. *BSOAS* xi, 348.

Skt. *piccha*- tail; peacock's tail; hair-bundle, *puccha*-tail | Ta. *pittai* a tuft or bundle of hair, *pottakam* feather of a peacock, Tu. *pucce* braided or plaited hair, Malt. *pice* the feathers of a peacock's tail, *picale* a peacock in full plume, etc. | Cher. *poč* schwanz, schweif, Zyr. *bež*, Voty. *biž* id., Vog. *ponš* schwanz, etc. *BSOAS* xi, 349.

A more complicated case is presented by the following words:—

DRAVIDIAN: Tu. *sūngu*, *tūngu* the beard of barley, etc., *cuṅge* awn, *tūṅgalu* awny, full of beard, as corn, Ka. *sunku* the bristle or beard of corn; with related meaning, Ta. *cīku*, *cīkam-pul* broomstick grass, *ūkam*, *ūkai* id. (> Hi. *sīk* the culm of the grass of which brooms are made).

FINNO-UGRIAN: MdE. *šuva* kaff, spreu, M. *šuva*, *ševa* bart an der ähre, *kaləń šuva* kleine fischgräte, Zyr. *šu* getreide, korn, etc., Cher. *šū* die kleie des hafers, Fi. *siikanen* ährens Spitze, bart an der ähre, achel.

SANSKRIT: *śūka*- awn of grain, a spike, spicule, *śuṅga*-awn of grain. In Iranian, Av. *sūkā* needle, is connected with Skt. *śūka*-.

Attention has been drawn to the similarity of the Indo-iranian and Finno-ugrian words and Jacobsohn¹ and others have considered that in this case Finno-ugrian has borrowed the word from early Aryan. But the existence of Dravidian words corresponding to the Finno-ugrian, shows that the

¹ *Arier und Ugrofinnen* pp. 126 and 167.

words must be native in Finno-ugrian and not borrowed. It is the Indian and Iranian words that must have been borrowed, a fact which is further demonstrated by the phonetic relation between Skt. *śūka-* and *śūnga-* which does not fit into any recognized Indo-european pattern. In view of its Iranian connection, however, Skt. *śūka-* is not to be regarded as a loanword from Dravidian, but rather as a much earlier loanword acquired outside India, very likely from Finno-ugrian itself.

This brings us to the earliest period of the loanwords in Sanskrit, namely the primitive Indo-iranian period when there was contact between the Indo-iranians and speakers of early Finno-ugrian. It has long been known that the latter acquired a number of Aryan words at this period, particularly in the matter of numerals which have recently been fully discussed by A. S. C. Ross.¹ The tendency has been to look exclusively for the influence of Indo-iranian on Finno-ugrian and to ignore the possibilities of the borrowing being the other way round. In the case of the word *śūka-* the evidence from Dravidian points to the fact that here Indo-Iranian is the borrower. There are also some other words mentioned in this connection to which the same may apply. A notable example is the word for 'bee'—Fi. *mehiläinen*, Cher. *mükš*, Md. *mekš*, Voty. *muš*, Hg. *méh* : Skt. *mākṣ-*, *mākṣā*, *mākṣikā* fly, bee, Av. *maχšī* Fliege. The Finno-ugrian words here are usually considered to have been borrowed from Indo-iranian, but there are two reasons which suggest that Indo-iranian may have been the borrower. Firstly the other Indo-european languages have no corresponding word, and secondly the Finno-ugrian forms point to an original vowel *ě* in the first syllable. This latter point is important because the other Finno-ugrian loanwords show a phonetic system corresponding to that which has been reconstructed for Primitive Indo-iranian. It is obvious that, such being the case, it cannot be assumed without further argument, that Finno-ugrian is the borrower in this case.

¹ *TPS*, 1944, pp. 45-93.

These are the main lines on which research into the loan-words in the Sanskrit vocabulary can be undertaken. The subject is still only partly explored and much remains to be done. The full working out of Dravidian and Austro-asiatic philology is necessary, before a final and definitive exposition of the subject can be made. This is not likely to be done in a short time, but it is to be hoped that in the years to come Sanskritists will pay more attention to this neglected field. When all this material has been collected and subjected to scientific study, there is reason to believe that a very large proportion of the unexplained words in Sanskrit will be traced to their source. In the same way much will be found that will illuminate the study of the modern Indo-aryan vernaculars. Indian linguistics must be based on the combined study of the three major linguistic families together with their external connections. This is a vast field for investigation of which only the surface has so far been touched.

THE DEVIL'S SPOUT

By S. T. R. O. D'ARDENNE

J te deouel leið his tutel dun to his eare. J tuteleð him al þ he wule.—Ancrene Wisse, fol. 57^v.

A Contribution to the Study of New Linguistic Material in the Germanic Languages ¹

PART I

THE word *tutel* probably only occurs in the *Ancrene Wisse*. The examples cited by N.E.D. are all from this source and no others seem to have been discovered. Besides the substantive *tutel*, there also occurs a related verb *tutelin*. Here are the passages in which this interesting group of words is recorded in the version of the *Ancrene Wisse* contained in MS. Corpus Christi College, Cambridge, 402.

(a) The substantive occurs on :

fol. 57^v *þe slawe lið J slepeð o þe deofles bearm as his deore deorling J te deouel leið his tutel dun to his eare. J tuteleð him al þ he wule*, the sluggard lies and sleeps in the devil's bosom as his dear darling and the devil applies his spout down to his ear and spouts him all that he will.

fol. 20^v *ne blawe ze hire nawt ut wið meaðelinde muðe. wið zeoniende tuteles*, do not blow her [i.e. Hope] out with chattering mouths, with gaping spouts.

fol. 18^v *þe feond of helle mid his ferd went þurh ut te tittel [? tutel] þe is eauer open. in to þe heorte*, the fiend of hell and his army passes through the tube (sc. cylindrical passage) which is always open into the heart.

The word *tittel* is either a scribal mistake for *tutel* (which apparently occurs in all the other Early Middle English versions so far known, and even survives in this passage in the fourteenth century version contained in the Vernon MS.), or a very early example of a substantive **tittle* (otherwise unrecorded) related

¹ My thanks are due to Professor J. R. R. Tolkien, who has helped me in the arrangement of the material here presented.

to a verb *tittle*, 'to speak in a whisper, to whisper (specially in the ear), to tell-tale, to gossip,' that is identical in meaning with *tutelin*, but recorded only in the fifteenth century, although the substantive *tittler*, 'a whisperer, tell-tale, gossip,' is apparently first recorded in literary English in Langland's *Rich. Redeles*, iv, 57 :—

*Somme were tituleris and to the kyng wente,
And fformed him of foom pat good ffrendis weren.*

The word survives to the present with the same meaning in Warwickshire (see N.E.D. s.v. *Tittler*¹).

More important to the present purpose is the co-existence of the names *le titteler* and *le tuteler* as nicknames probably 'the whisperer, gossip', recorded in *Richard le Titteler* and *Simon le Tuteler* in the *Hundred Rolls* for Suffolk in 1273, and later in *John Totiller* in the *Rolls of Parliament*.¹ Yet since here the stroke on the *i* (used frequently but not always) is missing, it is perhaps on the whole better to regard the form as a scribal mistake caused both by anticipation of the writing of the following *t* and by the occurrence of *hit te* just below.

(b) The verb *tutelin* in the sense of colloquial 'to spout' occurs on :—

fol. 57^v—*J tuteleð him al þ he wule*, 'and spouts him all that he will.'

fol. 28^r *J tu for þe luue of him. J for þin muchele biheue. þe tutelinde muð dute wið þine lippen*, and thou for the love of Him and for thy great profit shut thy spouting mouth with thy lips.

fol. 114^v *for anan rihtes þe feond beot hire his werc. þe is godes werc ne swinkeð J tuteleð anon toward hire*, for immediately the devil offers his work to her who does not labour in the work of God and he immediately spouts to her.

The verb *tutelin* is found outside the *Ancrene Wisse* in literary English (but not earlier). Thus N.E.D. cites *totelon talys* (S. *totylyn tale in onys ere*), glossing *susurro*, and the verbal noun *totelynge*, derived from it and glossing *susurrium* in the *Promp. Parv.* From this verb *tutelin* a new substantive *tuteler*, 'a whisperer, tale-bearer, gossip,' was derived. It

¹ See below and Bardsley, *A Dictionary of English and Welsh Surnames*, London, 1901, s.v. *Totiller*.

occurs in the version of Chaucer's *Legend of Good Women*, contained in MS. Arch. Selden. B. 24, fol. 157^v (I cite from the MS.) :—

Ffor in 3our court is mony a losingeour.

And many a queynt *tutelere* accusour

The other versions read *totelere*, *totulour*, and *tetler*.¹

That Chaucer should use a word which is (so far as evidence goes) characteristic of the *Ancrene Wisse* language is interesting. The case is not isolated. In the same work (*The Legend of Cleopatra*, 638) we find the adverb *heterly* 'fiercely'. On this word see my *Liflade ant te Passiun of Seinte Iulienne*, pp. 155–6. The word *losingeour* 'flatterer', occurring in the Chaucer citation is interesting. It occurs in *The Recluse*, a fourteenth century version of the *Ancrene Wisse* (see below), and will be studied in a forthcoming article.

Skeat in a note on *totelere*² cites Halliwell's reference to *Be no totiler* (MS. Bibl. Reg. 17 B. XVII, fol. 141), where the word 'clearly means a gossiping tattler, or tale-bearer'. He refers the word to a 'helpful passage in *Piers Plowman*, B. XX, 297.

Of alle taletellers and tyterers in ydel.

For the word *tyterers* the form *tutelers* appears in the version contained in MS. Cambr. Dd. I. 17, and *titeleris* in other versions.

N.E.D. gives further evidence of the word showing the three different spellings (that is *i*, *o*, *u*) and the same meaning, as in—

c. 1400 *Song Roland* 226, Yet will tutlers in toun talk bound.

c. 1440 *Promp. Parv.* 498/1, Totelare, susurro.

c. 1470 Henryson *Poems* (S.T.S.) III, 142 (Maitl. MS.) Fals Tutlaris [*Bann. MS.* titlaris] now growis vp full rank. *Ibid.* 143, Giff þe tutelar [*Bann. MS.* titillaris] so in his eir do roun.

c. 1500 *Colkelbie Sow* 128 (*Bann. MS.*) A tuttivillus, a tutlar, And a fanyeit flatterar.

¹ See Koch, *Geoffrey Chaucers Kleinere Dichtungen*, Heidelberg, 1928, p. 150.

² Chaucer, *The Legend of Good Women*, Oxford, 1889, p. 142.

All these examples are cited from N.E.D. To these we may add the following passage of *The Cloud of Unknowing*¹ in which the word is recorded and shows in the later versions the variation *o/i* noted above. MS. Harleian 674 (early fifteenth century):—

Fleschely ianglers, opyn preisers J blamers of hem-self or of any oper, tiping tellers, rouners and tutilers of tales and alle maner of pinchers.

MSS. Royal 17C XXVI (early fifteenth century) and University College, Oxford (mid-fifteenth century): *totylers*.

MSS. Royal 17D V (late fifteenth century) and Parkminster (early sixteenth century): *titillers*.

These are (for so far as I know) the only occurrences of this interesting word-group in literary English. And the earliest examples of it are provided by the *Ancrene Wisse*.

Both the substantive *tutel* and the verb *tutelin* survived in the fourteenth century versions contained in the Vernon MS. and in MS. Pepys 2498, Magdalene College, Cambridge (known as *The Recluse*, edited by Joel Pahlsson, Lund, 1911). But whereas the Vernon version preserves this word-group faithfully (except in one case. But the scribe may have copied that passage from a version (like *Nero*) in which the word *tutelinde* did not occur), *The Recluse* contains it in one passage only, but introduces the verb *totelep* where all the other versions read *m(e)adeleð* as in *Sleupe laiþ and slepeþ on þe deuels barme as his dere derlyng & þe deuел laiþ his totel toward his ere & totelep hym al þat he wil. For so it is sikerlich who so is ydel of good workes þe deuел totelep hym zerne . . .* (p. 106/6–9). On the spelling *totel*, *totelep* with *o* see below.

Where does this word-group come from? What is the exact meaning of *tutel* and *tutelin*? The answers will be found partly in philology and partly in demonology.

In the *Ancrene Wisse* language *tutel* can represent either OE. **tūtel* or **tǣtel* < **tǣtil*. The form **tǣtil* < older **tūtil* is the most probable and, as will be seen, the best evidenced. The verb *tutelin* is probably derived from the noun *tutel*, but whether anciently or in Early Middle English is difficult

¹ *E.E.T.S.*, Original Series, no. 218, p. 2/20.

to ascertain. Anyhow in both cases it is in Middle English that a verb of such formation was bound to enjoy a special favour. In English just as in Dutch and German ¹ the suffix *-le(n)* < OE. *-(e)lian*, *-(i)lian* was extensively used in verbs of onomatopoeic origin expressing repeated action or movement such as *babble*, *cackle*, *giggle*, *tootle*. See N.E.D. s.v. *-le*, 3. The chief weight of the present discussion must bear on the noun *tutel*. Unfortunately there is no record in Old English of a common noun **tūtel* or **tȳtel*, though the latter probably lies concealed in the name (very likely a nickname) *Tyttil*, which appears in Bede's *Ecclesiastical History*. It is cited among the names of the Kings of the East Angles as *tyttili cujus pater fuit uufa*.² The name was recorded later by Florence of Worcester in the *Genealogia Regum Orientalium Anglorum*, where the successor to Wuffa was called *Tytla*,³ probably the same as the *Tyttla* cited in the *Genealogies*⁴ among the Kings of the East Angles.

The word is further recorded as *Tydel* in *De Ortu regum Eastanglorum*, included in Nennius' *Historia Brittonum*, whether Nennius be the author or not of that chapter.⁵ The Old English name *Tytel* probably survives in *Tutel*, occurring in the *Domesday Book* for Winton as *Dominus Tutel. redd. coñs. T.R.E.M. teñ. Siñ. J ñ. faç coñs. ñ lañg*.⁶; and in *Tutilo*, an inmate of St. Gall in the tenth century.

¹ On Germ. *tütteln* and suffix *-eln*, see Wilmanns, *Deutsche Grammatik*, ii, pp. 96–8. On Flem. *teutelen* (see below) and suffix *-elen*, see Schönfeld, *Historiese Grammatika van het Nederlands*, 3e Druk., Zutphen, 1932, § 156a.

² See O. S. Anderson, *Old English Material in the Leningrad Manuscript of Bede's Ecclesiastical History*, Lund, 1941, p. 41; Sweet, *Oldest English Texts*, E.E.T.S., 83, 1885 (referred to as *O.E.T.*), Liber II/15, p. 136.

³ *Chronicon ex Chronicis*, edited by Benjamin Thorpe, London, 1848, vol. i, p. 249.

⁴ *O.E.T.*, p. 171/119.

⁵ Edited by Ferdinand Lot, Paris, 1934, p. 198.

⁶ Vol. iv, p. 536. For another view concerning the origin of the name, see Mats Redin, *Studies on Uncompounded Personal Names in Old English*, Uppsala, 1919, p. 144, who refers to Holder, *Alt-Celtischer Sprachschatz*, ii, p. 2022, where mention is made of a *Tutellus*. It is interesting to note that Holder questions the origin of the name.

Tutivilus, *Titivilus*, the name of "pe deuyf of hell" in the fifteenth century York *Judicium*, although of a different origin,¹ was closely associated in meaning and in form to OE. **týt*el. Cf. *Tuttivilus* in the *Colkelbie Sow* quotation cited above where it is used in close association with *tutlar* 'a gossip'.

OE. *Týt*il is probably the same name as OHG. *Zucil*(*eswilare*), which Förstemann² refers to *Zuzil*, that is to a Gmc. *Tät*ila, which actually occurs as a variant of the name of *Tot*ila,³ the King of the East Goths. This is a Germanic formation with the suffix *-ila*, which is seen in many names and nouns, in the former frequently diminutive as in *Attila*, *Wulfila*, and in the latter frequently instrumental as in Dutch *sleutel* < **slut-ila*, German *Gürtel* < **gurđ-ila*, English *beetle*, 'a beating implement' < OE. *bīetel* < **baut-ila*. Whether the name contains the suffix *-ila* or comes direct from a noun **tūt*ila is uncertain. Be the explanation what it may the word *tutel* ultimately represents **tūt-ila*.

The rare Middle English forms in which the word survives do not show with certainty whether the root vowel was short or long. If originally long it might easily have been shortened. It is thus necessary to suppose two main stands:—

- (a) **tūt-* (with possible later shortening to *tüt-*).
- (b) **tūt-* in normal ablaut to **tūt-*.

The evidence for this stem in late English is as follows:—

(a) *tūt-*. To this stem belong such words as OE. *týt*an < **tūt*jan, 'to stand out, to be conspicuous,' which gives ME. *tute*(*n*), *tout*, and NE. *tout*, 'to peep, to peer, to look-out, hence (in thieves' cant) 'to keep a sharp look out' (see N.E.D. *s.v.* *Tout* v¹). From the last meaning a new substantive was formed: *tout*, 'a watchman' (cf. Germ. *Tütemann*, Walloon (Malmedy) *túteleúr*),⁴ and a verbal substantive *touting* (see N.E.D. *s.v.* *Tout* sb.⁴ and *Touting* vbl. sb.⁴).

¹ See Holder, *op. cit.*, ii, p. 1857, *s.v.* *Titivilla*; N.E.D. *s.v.* *Titivil*.

² *Altdeutsches Namenbuch*, vol. i, Bonn, 1900, *s.v.* *Tot*: 'aus *Zucileswilare* lässt sich mit Gr(aff), v, 714, ein *Zuzil* erschliessen.'

³ A fuller discussion of this name (probably closely connected with *tutel*) will be found in the Appendix.

⁴ See J. Warland, *Glossar und Grammatik der Germanischen Lehnwörter der Wallonischen Mundart Malmedys*, Liège, 1940, p. 184.

OE. **tūte*, sb. > ME. *toute*, *towte*, 'the buttocks, fundament, posteriors' (see N.E.D. *s.v.* *Toute*).

(b) **tūt*-. There seems to be no clear evidence of the occurrence of the stem *tūt*- in literary English. On dialectal Scotch *tut-mouth(ed)* and dialectal (East.) *tut-nose*, see below.

These are the only cases in which from a strict philological point of view the stem *tūt*- is recorded in literary English. But a close study of these forms, of place-names, of dialectal words, very soon show that matters are not so simple, and that they belong to a complex group.

To explain the forms found later it is necessary to suppose once more two main stands:—

(1) **tūt*-, with some variety **tūt*- (normal ablaut or later shortening), to which the Early Middle English *tutel* is closely related.

(2) **tōt*-, found in OE. *tōtian*, 'to protrude, to stick out, to peep out,' hence 'to peep, to peer' (= AW *totin*), which is identical in meaning with OE. *tȳtan* (see N.E.D. *s.v.* *Toot* v¹). There also occurs an Old English substantive *getot*, severally evidenced in the derived sense 'showing off, display, pomp'. This is probably to be taken as *tōt*- because of Modern *toot*. See N.E.D. *s.v.* *Toot*, sb.¹

A large number of forms in Modern English dialects and place-names show that stem *tūt*- was in competition with *tōt*-, for example, the thirteenth century (1256) form *Touthull* for normal *toot-hill*,¹ which obviously goes back to *tōt*-. The examples of such confusion are too frequent to be passed over without a word of comment. Although the two stems *tūt*- and *tōt*- are not related by normal ablaut (as are *tūt*- and *tūt*-), yet it would be absurd to deny any relation between them. Nothing of their ultimate origin is known although some attempts have been made to trace it. But even if they could be shown to be ultimately distinct, they have become related by constant association, being virtually interchangeable, not only in English but in related languages. This

¹ See *E. Pl. N. Soc.*, vol. xviii, *s.v.* *Tothill*, p. 174. On the first element *toot*-, see *E. Pl. N. Soc.*, vol. xii, *s.v.* *Totham*.

fact suggests that both *tūt-* and *tōt-* belong together to later newly invented linguistic material, not to the inherited Indo-European stock of words. The radical signification of this new material was probably 'to protrude, to stick out', but the semantic development has been complicated by the onomatopoeic suggestion of the syllable *tūt-* which groups itself naturally with other onomatopoeic stems such as *hoot* (AW. *huten*), *poop*. It is theoretically possible to regard the stem *tūt-* when used of sound (= 'hoot, toot') at any period in Germanic languages as distinct from *tūt-*, *tōt-* 'to protrude'. But in fact the senses make immediate contact in such cases as *horn*, *tube* and it is impossible practically to disentangle the two stem-groups.

The whole question is further complicated by the fact that earlier *ō* has in many Germanic languages and dialects become *ū* (as in English, Dutch, and German), while invention of onomatopoeic words has not ceased. It is therefore often impossible to decide for instance whether a modern word like *toot* (= 'hoot') is derived from *tōt-* or is *tūt-* unaltered (or preserved in onomatopoeia) or *tūt-* reinvented.

What we have actually to deal with is a group *tūt-/tōt-* covering a mixed semantic area *protrude/hoot*, in which the two leading senses are as a rule blended. A clear example of this is provided by Orm's use of the phrase *hutenn J putenn*, 'to deride,' 2034, in which the older Germanic stem **pūt-/ *peut-* (evidenced in Goth. *þuthaúrnn*, 'toot-horn' and in OE. *pēote*, 'water-pipe') is related onomatopoeically, if not etymologically, to *tūt-*, *tōt-* and does show the same sense development (see below). Moreover dialectal *hooting and tooting*, 'to call out, to shout, to bawl,' is also recorded in the Cheshire dialect with the sole meaning of 'to peep'.¹ Another instance of this is to be seen in the Somerset use of *toot-horn* in the meaning of 'anything long and taper, like a cornet or horn'.²

Finally there is a large number of words such as Scot.

¹ See Joseph Wright, *The English Dialect Dictionary*, Oxford, 1905 (referred to as E.D.D.), s.v. *Toot* v² & sb⁵, and *Hoot* v².

² *Ibid.* s.v. *Toot* v¹ & sb⁴.

toot and *tootle*¹ relating to drinking, which may be connected or partly connected to these stems. The connection would probably be merely through the senses funnel, pipe, spout. Cf. Walloon *tûtelier*, 'auf dem Horn blasen; (an der Flasche) trinken; austrinken (Vgl. Eifel *tuten*, 'ein Ei austrinken'),² and the Hasselt dialectal *teutel* 'tuit van een pot', and *teutelen*, 'drinken doch eerder te veel dan te weinig,'³ from which the Walloon forms seem to have originated.

Thus the evidence found inside the English language is corroborated by the cognate forms found in related languages, especially the Germanic dialects of the Low Countries in which the word group is used extensively. In these dialects the stems *tût-* and *tüt-* are well evidenced. They gave *tuit* and *toot* respectively. The word *tuit* was aptly described by De Bo as 'een van de gebruikelijkste in ons dialect. Men hoort het gedurig en overal'.⁴ It means anything 'protruding, sticking out', hence its primary meaning of 'pipe, funnel, spout, horn'. By extension of sense in the local dialects it acquires the figurative meaning of 'nose, snout, mouth, and face'. Hence 'de neus van den mensch is een tuit'.⁵ Already in Kiliaen⁶ *tote* (Du. *toot*) is described as *fland. i. muyl*. As in English dialects and place-names, the same constant association of *tût-* and *tüt-* is a marked feature of the Flemish forms. Hence the same uses of *tuit* and *toot*. *Toot* is described by De Bo as 'de tuit of pijp van eene kan of moor'.⁷ In Kiliaen they are used indiscriminately to express the same thing hence the duality of forms as in *tote/tuyte*, glossing *tutulus, cornu, extremitas instar cornu, apex, conus; tuyte/tote*

¹ *Ibid.* s.vv. *Toot* b³ & sb⁶ and *Tootle* v³.

² Joseph Warland, *op. cit.*

³ J. F. Tuerlinckx, *Bijdrage tot een Hagelandsch Idioticon*, Gent, 1886.

⁴ *Westvlaamsch Idioticon*, Gent, 1892, s.v. *Tuit*.

⁵ *ibid.* Cf. dialectal English (East.) *tut-nose* 'snub-nose', which de Haan Hetteema (*Trans. Phil. Soc.* 1858) rightly compared to Fris. *toetnoos*, Du. *tuitneus*.

⁶ *Etymologicvm Tevtonicæ Lingvæ Sive Dictionarivm*, for which I used the editions of 1599, 1613, 1620, 1632, 1642, and 1777 (= 1599). See Additional Note.

⁷ *Op. cit.* s.v. *Toot*, *Tote*, *Teute*.

= *Cornu*; *tuyte/tote* = *Papilla & Mamma, huber*; and the compounds *tote-muyl.i.tuyte-muyl*¹ = *Bronchus*; *tuyt-schoenen.i.tote-schoenen*,² glossing *calceus lunatus, rostratus, cornutus*. Kiliaen mentions a verb *tuyten* glossing *canere cornu, cornu inflare, clangere, buccinare*, and the phrase *tuyten in de oore* in the meaning of *dicere in aurem, insusurrare in aurem*. He also records under a separate entry a verb *tuyten* glossing *tinnire, strepere*, and a substantive *tuytinghe* glossing *susurrus, sibilus, tinnitus aurium*. All these forms are closely related in form and in meaning to AW. *tutel, tutelín*. In Flemish place-names, too, the two stems *tūt-* and *tüt-* are well evidenced, the former as in *Tuiteberg, Tuitere, Tuitil-hoek*, the latter as in *Totaert, Toteland* (also recorded as *Totelaere*).³ There also occur in the West Flemish area *Tuthil* (1365), *Tuuthil* (1603), and *De Tuut*, which may be compared with the thirteenth century Middlesex *Touthull* (cited above), although the English forms *Toot-hill* and the Wiltshire place-name *The Toot*⁴ go back to *töt-*.

There is no clear evidence for the stem *töt-* in these dialects and place-names. It would have given **toet* just as **bōk-* gave *boek* and **gōd-* > *goed*. There occur in MDu. a substantive *toet* in the sense of 'geschal, geblaas op een hoorn',⁵ and a verb *toeten* apparently derived from it. Modern Dutch

¹ Cf. dialectal Scot. *tut-mouth* sb. and *tut-mouthed* adj., 'having protruding lips.' See N.E.D. *s.v.* Tut-Mouthed, and E.D.D. *s.v.* Toot-Moot sb., v., adv. in sense closely associated to *tutelín* and meaning 'to whisper, to carry on a conversation in low, muttering tones'.

² Cf. the rare and archaic Engl. *tote*, 'the point or toe of a shoe.' See N.E.D. *s.v.* Tote sb.³, and Icel. *tota* in the same meaning.

³ For the Flemish place-names cited in the present article see Karel de Flou, *Woordenboek der Toponymie*, Brugge, 1914-1936, vol. 15. An apparent parallel to Flemish *Tuiteberg* is seen in German *Totenberg* occurring in *ad radices montis Totenberg super rivulum Louchaka* in the spurious *Privilegium Comitis Thuringie* to be found in the *Cronica Reinhardsbrunnensis* for the year A.D. 1034 (see Pertz, *Mon. Germ. Hist.*, vol. xxx, i (1896), p. 519/19.) Cf. the OHG. place-name *Totstede*, which Förstemann, *op. cit.*, vol. ii, refers to MLG. *tote*.

⁴ See *E. Pl. N. Soc.*, vol. xvi, p. 276.

⁵ See Verdam, *Middelnederlandsch Handwoordenboek*, 's-Gravenhage, 1932.

toet/toeten are generally described as being the same word-group as *tuit/tuiten* in which 'het onomatopoëtisch karakter van het woord heeft de ontw. *û* > *ui* tegengehouden resp. de ontlening uit œ-diall. bevorderd'.¹ Attractive though this explanation may be it is oblivious of the fact that the syllable *toet-* is liable to be reinvented or readopted in an onomatopoeic function at any time in a language of similar structure as Dutch or Flemish, specially in connection with a word whose primary meaning 'to protrude, to stick out' developed into that of 'pipe', since pipes, tubes, funnels, and spouts are naturally connected with such noises. There is, however, another fact which illustrates still further the relationship of English and the Germanic dialects of the Low Countries in their treatments of stem *tūt-*, namely this: AW. *tutel* and *tutelin* have their exact cognates both in forms and in meanings, in Flemish *tuitel*, *teutel*, *total*; *teutelen*. For *teutel* occurring in the Western as well as in the Eastern Low Germanic dialects of Belgium may go back to a common **tūt-ila*, just as *sleutel*,² 'key,' represents in these dialects a Gmc. **slūt-ila*. In that case the development would be: (a) for the Western dialects **tūt-ila* > **tötīl* (with the normal change of Gmc. *ū* > *ö*), with lengthening in an open syllable > **to:tīl*; and with spontaneous fronting > *tö:təl*, spelt *teutel*. (b) for the Eastern dialects **tūt-ila* > **tötīl* (with the normal change of Gmc. *ū* > *ö*); with front-mutation > **tötīl*; and with lengthening in an open syllable > *tö:təl*, spelt *teutel*. Without either mutation or fronting the word appears as *total* in both dialect groups.

The evidence for these forms is as follows:—

1. In West Flemish properly speaking the forms are not recorded by De Bo, but Schuermans³ cites *total* (which he

¹ See Van Haevingen's *Supplement to Franck- van Wijk, Etymologisch Woordenboek der Nederlandsche Taal*, 's-Gravenhage, 1936. See also Schönfeld, *op. cit.*, § 62.

² See Cecile Vereecken, *Van 'Slut-ila' naar 'Sleutel'*, *Handelingen van de Koninklijke Commissie van Toponymie en Dialectologie*, xii, 1938, pp. 6 ff

³ *Algemeen Vlaamsch Idioticon*, Leuven, 1865-1870.

considers as a diminutive of *toot*); *tuitel* and *teutel* in the meaning of 'pijp of buis van eenen pot'.

2. In the Hageland dialect¹ the word *teutel* occurs in the sense 'tuit (van een vaatwerk)'. There also occurs a word *toteman*, 'grootte koek, waarvan de einden tot *toten* (*tuiten*) uiteengetrokken zijn,' which Tuerlinckx refers to Kiliaen *totemanneken*, 'gargoil.' In the third edition of Kiliaen's dictionary (1599) and in the subsequent editions of 1620 and 1777 the word appeared as *totelmanneken*, glossing *Persona: figura eminens in ædificiis, quæ aquas ore vel mentula fundit*.

3. In the Limburg dialect [týtəl] and even [týtəlkə] are recorded in the meaning of 'spout'. In the Hasselt dialect, J. F. Gessler² cites *toetel* in the meaning of 'spout' and records the compound *toetelschenckkanne* from a sixteenth century text, apparently in the sense of *totelmanneken* 'gargouls'. Tuerlinckx³ states that 'In het Hasseltsch beteekent [te:təl] tuit van een pot en [te:tələ], drinken doch eerder te veel dan te weinig'. Hence Walloon *tüteler* (see above).

4. In the Haspengouw dialect⁴ *teutel* and *teupel* are recorded in the sense of 'tuit (van een aardewerk)'.

5. In the 'Klein-Brabant' dialect both *teutel* and *teutelen* are recorded, the latter in the sole meaning of 'drinken' as in *Dije kain goed teutele*.⁵ In 'Noord-Brabant' besides *teut*, *teutje*, *teuter*, there also occurs a compound noun *teutelkous* meaning 'iemand die langzaam in zijn doen en spreken is', which may be referred to the Gelder dialectal verb *teutelen*, 'praten,'⁶ that is the meaning of AW. *tutelin*.

¹ See J. F. Tuerlinckx, *op. cit.* The Hageland covers the area extending between Diest, Tienen, Leuven and Aarschot.

² *Proeve van een Oudhasseltsch Glossarium*, Hasselt, 1940.

³ *Op. cit. s.v.* Teut-, Teutel.

⁴ See Aug. Rutten, *Bijdrage tot een Haspengouwsch Idioticon*, Antwerp, 1890. The Haspengouw is the name of the area extending between Sint-Truiden, Montenaken, Tienen and Zoutleeuw.

⁵ See Tuerlinckx, *op. cit.*

⁶ See H. Molema, *Woordenboek der Groningsche Volkstaal in de 19de Eeuw*, Winsum, 1887, *s.v.* Teuten. See also J. H. Gallée, *Woordenboek van het Geldersch-Overijselsch Dialect*, 's-Gravenhage, 1895, *s.v.* Tötteln, and *Woordenboek der Nederlandsche Taal* (referred to as *W.N.T.*), *s.v.* Teuten,

Tracing the word north and east of these areas we find it in West-Frisian *tutel*, *tútel* in transferred senses,¹ and in Westphalian *tútel*, *tuitel* in the meaning of 'Schneppe, Schnauze, Tülle (eines Theetopfes) an geschirren'² derived from *túte* 'düte des Krämers'. The German word *tüte* = *krämerstüte* is (as the anlaut of the word indicates) of Low German origin and of the same formation as French *cornet*.³

In his *Vorstudien zu einem Altniederdeutschen Wörterbuch*,⁴ Gallée records *tuttīl*, in the meaning of 'punkt, zitze' and refers it to OHG. *tuttīli* glossing *papille*. It survives in Mod. Germ. *Tüttel* meaning 'Pünktchen'.⁵

From these low German areas the word spread to the Romance languages where it still survives in the French word *tuyau* < OFr. *tuel*, Provençal *tudel*.

There is no need to derive these words from the old stem **pūt*-evidenced in Goth. *puþhaur̥n* (see above), as suggested by Gamillscheg,⁶ although the root does show the same sense of noise and pipe. According to him it was borrowed in the twelfth century. The date is interesting, for it is generally assumed that the author of the *Ancrene Wisse* wrote his treatise towards the end of the twelfth century. The word *tutel* was then in *vogue* and this would account partly for its occurrence in the Middle English work.

In the Romance dialects the nature of the word was bound

Teutelen (I). Franck-van Wijk, *op. cit.*, refers the latter to Kiliaen *betoteren*, *betotelen* glossing *commovere, turbare animo, difficultate afficere, incutere metum*, and considers it as "een jong woord voor mnl. *túten* (= *tuiten*)". Besides *teutelen* W.N.T. cites a derived substantive (*ge*)*teutel* in usage closely associated with *neus*, "nose," as in *Het is goed voor u, dat het een mooi fijn teuteltjen van een neusjen is . . .*

¹ See N.E.D. *s.v.* *Tutel* sb.

² See Woeste and Nörrenberg, *Wörterbuch der Westfälischen Mundart*, Norden and Leipzig, 1882-1930.

³ On NHG. *tüte*, *düte*, see Schröder, *Beiträge zur Deutschen Wortforschung*, Z.f.d. Ph., xxxvii, p. 396. On the Rhenish forms *tōt*, 'Röhrkanne' and the High German formation (*verhochdeutsch*) *zūt*, 'Ausguss,' = Du *tuit*, see Frings, *Germania Romana*, Halle, 1932, p. 130, note 2, and p. 211.

⁴ Leiden, 1903, *s.vv.* *Tutta*, *Tutti*, and *Tuttīl*.

⁵ See Kluge, *Etymologisches Wörterbuch der Deutschen Sprache*, 11th edition, 1934. *s.vv.* *Tüttel*, *Zitze*, and *Zotte*.

⁶ *Etymologisches Wörterbuch der Französischen Sprache*, 1928, *s.v.* *Tuyau*. For other Romance words showing the stem *tūt*- see Meyer-Lübke, *Romanisches Etymologisches Wörterbuch*, Heidelberg, 1935, *s.v.* *tūt*-.

to ensure it great success. It is well evidenced in the Walloon dialects. To the words already cited above we might add *tûtelête*, 'biberon' and *tûturon* 'bec d'un vase; goulot de bouteille; biberon; bout du sein'.¹ In the Moselle Romance dialects² it lies concealed in *tûteler* [*tûtlē*'] 'Sonner de la trompette', *tûtelou* [*tûllu*], 'corneur'; *tûter* 'Sonner de la trompette (cf. *tûteler*); chanter (en parlant des oiseaux)' (cf. dialectal English *tooter* and *tootle*); 'boire'; and *tuturon* [*tütüron*], 'goulot d'un vase'.

It is beyond the scope of the present article to prolong the discussion (already too long) of these Low German forms and of their subsequent history. Yet they are extremely useful for the discussion of ME. *tutel*, *totel*; *tutelin* and *totelen* to which they prove to be the exact Germanic cognates. Hence AW. *tutel* means 'spout'. This sense is still further made clear by the use of the adverb *dun* 'down' in *J te deouel leið his tutel dun to his eare*. If so the name *Tytel* cited above must have been a nickname meaning 'with a spout', just as *le Tuteler* (later *Totiller*), derived from it, meant 'the spouter' (see above).

Such nicknames were frequent in Old English (just as elsewhere), and quite in the tradition as for instance *Edgyue Suanneshals*, 'Edith the swan-necked,' *Harald Haranfot*, 'Harold Harefoot.' Such nicknames were even added, if not found in the original language, as for instance in Nennius' *Historia Brittonum* (*op. cit.* p. 94), *Ecgfrid*, King of Deira, is nicknamed *ailquin* < Welsh *ael Wyn*, 'white eyebrows,' and *Aetan*, the fourth descendant of *Ida*, is said to be *glimmaur*, which in Welsh means 'with a big knee'. A parallel example to *Tytel* is to be found in *Mûli* meaning 'snout, trunk, spout', so frequent in the Scandinavian languages, where it is used as a nickname. It was borrowed in Old English and is recorded in the *Liber Vitæ Dunelmensis* (c. 1030) and in several English place-names as in *Mouthorpe*, *Moulsecombe*, *Moulton*.³ Olof von Feilitzen⁴ cites a compound-name Mulegrim

¹ See J. Haust, *Dictionnaire Liégeois*, Liège, 1933, s.v. Tûte.

² See Léon Zéliqzon, *Dictionnaire des Patois Romans de la Moselle*, Strasbourg, 1922.

³ See Gösta Tengvik, *Old English Bynames*, Uppsala, 1938, p. 323; *E. Pl. N. Soc.*, vol. v, pp. 35 and 137, *ibid.* vol. xiv, p. 125.

⁴ *The Pre-Conquest Personal Names in Domesday Book*, Uppsala, 1937, p. 330.

(Yorkshire) and *Milegrim*, which he refers to ON. *Múla-Grimr*. The name would, according to him, mean either 'Grimr, son of Múli, or Grimr, with the big mouth'. Cf. ON. *Múla-Biarni* and MHG. *Burchardus Mul* (= 'Maul'), *Rûdolfus dictus Múlli* (1292), *Cûnradus Nase, Rû. dictus Nase* (1292)¹; O Fr. *Guillaume "au court ou plutôt au courb nez"*²; OWFl. *Griele Quadenuese*.

We have now seen the result achieved by a philological study of the word *tutel*. Is this meaning confirmed by the evidence of the actual painting and drawing of devils in contemporary miniatures? Did the word *tutel* 'spout' express clearly the images in illuminated psalters and in the manuscripts of the lives of the saints, familiar to the anchoresses? The eleventh and twelfth centuries were periods in which English artists revelled in drawing, painting, and describing Hell and its monsters. This was the result of a long tradition, an early example of which is provided by the Latin Life of St. Guthlac, written by Felix at the command of King Ælfwold of the East Angles.

Felix was probably a monk belonging to the Community said to have been established by King Ethelbald of Mercia at Crowland soon after the death of the Saint. This Felix describes himself as "catholicae congregationis S. Bedan vernaculus".³

In it the author describes the devils as 'adspectu truces . . . capitibus magnis, collis longis, macilenta facie lurido vultu, squalida barba, auribus hispidis, fronte torva, trucibus oculis, ore foetido, dentibus equinis, gutture flammivomo . . .'⁴ and much more. This Latin life was later translated into Old English.

Besides the free metrical version contained in the Exeter MS., there appeared two prose translations of the Latin text. They were edited by Gonser (*op. cit.*) from MS. Cotton Vespasian

¹ See Adolf Socin, *Mittelhochdeutsches Namenbuch*, Basel, 1903.

² See Gustave Lanson, *Histoire Illustrée de la Littérature Française*, Paris, 1923, vol. i, p. 30.

³ See Paul Gonser, *Das Angelsächsische Prosa-Leben des hl. Guthlac*, Heidelberg, 1909, p. 100.

⁴ See Gonser, *op. cit.*, p. 128. This extract is from MS. Royal 13 A XV (tenth century).

D XXXI (eleventh century, referred to as VP) and from the Vercelli MS. (end of the tenth century) respectively.

In both prose versions *ore foetido, dentibus equinis* are translated *ondrysenlice* (VP *fule*) *muðas*. *J heora teð wæron*



FIG. 1

horses tuxum (VP *twuxan*) *zelice*.¹ This description appealed to the unknown artist who drew and painted the episodes of the life of St. Guthlac on the Harley Roll Y. 6² towards the end of the twelfth century.

¹ See Max Förster, *Il Codice Vercellese*, Roma, 1913, fol. 135^r.

² See George Warner, *The Guthlac Roll*, a facsimile edition printed for the Roxburghe Club, Oxford, 1928.

The fact that these pictures are independent of any accompanying text and are not bound in a volume is interesting. It proves (a) that the life of St. Guthlac was enjoying a great *vogue* at the time, and (b) that painters, contrary to the view generally expressed that 'Jusqu'à la Renaissance les artistes n'ont fait qu'illustrer des textes',¹ were beginning to treat these subjects independently, first on rolls, and later on canvas.



FIG. 2

Here is a picture of the well-known scene representing St. Guthlac carried up into the air by devils and scourged by them (fig. 1).

A comparison of this drawing with the picture of one of the devils scourging St. Anthony (fig. 2), painted (probably in the English tradition)² by the well-known Upper Rhenish

¹ See G. de Schoutheere de Tervarent, *La Vierge d'Alexandrie*, Brussels, 1935, p. 60.

² See Adolph Goldschmidt, *English Influence on Medieval Art*, published in the *Medieval Studies in Memory of A. Kingsley Porter*, Harvard University Press, 1939, pp. 720-1.

painter Schongauer, gives a fair idea of what a devil's spout (or *tutel* as the author of the *Ancrene Wisse* calls it) looked like. Every devil in the Guthlac picture is adorned with that extra flourish. So is the devil in the foreground of the picture representing Hell in the Winchester Psalter (MS. Nero C IX) belonging to the same century. The unknown artist saw it according to Tondalus' vision, that is as the gaping jaws of a monster with huge tusks between which leaping flames seized the doomed ones . . . indeed as a *zeoniende tutel*, that is as a gaping spout.

The rendering of the word *tutel* by *zate* in the fourteenth century version known as *The Recluse* (*op. cit.* p. 32/25): *And þe fende wip his felawschipp entreþ in atte zate vn to þe hert*, is particularly instructive on this point. Joseph Hall¹ suggested that *zeoniende tutel* glossed *ures prurientes*. A casual glance at the MS. reveals that the Latin quotation *non habeatis linguam uel aures prurientes* is correctly translated *lokið seið sein ierome ze nabben zicchinde nower tunge ne earen*, fol. 20^r, 'Mind, says St. Jerome, that you have no itching tongue nor ears.' *zicchinde . . . earen* = *ures prurientes* = 'itching ears'.

This is the image which such words would inevitably convey to the vivid imaginations of the anchoresses. For, if in painting 'the representation of animals and of beings half human and half beastlike reaches its perfection in the twelfth century and seems very characteristic of English taste', if 'this notion of Hell . . . which prevailed especially in England . . . was transferred from England to the continent'² the same tendency is reflected abundantly in the literature of the time. The Old English versions of *The Life of St. Guthlac* have just been cited. To these the literary versions of *The Vision of Tondalus*, which took place in 1149, might be added. It soon enjoyed a great vogue both in England and on the continent. The different versions in which the vision

Selections from Early Middle English, Oxford, 1920, vol. ii, p. 385.

² See Adolph Goldschmidt, *op. cit.*, p. 720. See also the fine miniatures representing Hell on folios 50^v, 81^v, and 87^r of MS. Douce 134, a French work of the fifteenth century, containing *Le Livre de la Vigne Nostre Seigneur*.

was described, whether they be English,¹ French,² Dutch, or German³ agree in endowing Lucifer, 'le maistre dyable d'enfer' (and his loathsome retinue) with some sort of a *tutel*. But whereas the Dutch and German versions⁴ (supported by the French Paris version) call it a 'beak' as in

eynen altzen groissen *beck* ind lanck. (Cologne Version.)

eynen *bec* alte lanck ende alte groet. (The Hague Version.)

Le *bec* auoit gros et agui et trainchant por tout devorer,⁵

the Middle English version gives it some extra colouring in describing it as

. . . a mekille longe *snowte*, 1331

pat was large and brod aboute.

or His *snowte* was with irne typped. 870.

But the Old French version contained in MS. British Museum Add. 9771 provides the exact gloss to the word *tutel* in translating the passage just cited in the following way :

auoit molt lonc *cors* et molt gros,⁶

in which the word *cors* represents Vulgar Latin *cornus* = *cor* 'horn'.⁷ This is indeed the very meaning (suggested above) of the stem *tūt-*. A clear example of such an instrument is given by Shetelig-Falk in their book (translated by E. V. Gordon) on *Scandinavian Archeology*.⁸ This may be taken as a single example of the fact that the shapes and instruments were elaborately developed long before the Middle Ages. So that we may expect the linguistic situation to be complex

¹ See *Tundale, Das Mittlenglische Gedicht über die Vision des Tundalus*, ed. by Albrecht Wagner, Halle, 1893.

² See *La Vision de Tondale (Tnudgal)*, Textes français, anglo-normand et irlandais, publiés par V. H. Friedel et Kuno Meyer, Paris, 1907.

³ See *Tondalus' Visioen en St. Patricius' Vagevuur*, ed. by R. Verdeyen and J. Endepols, Gent, 1914-17.

⁴ *Ibid.*, vol. ii, pp. 112-13. All the versions but Gent read *bec(k)*.

⁵ See Friedel and Meyer, *op. cit.*, p. 38.

⁶ *Ibid.*, pp. 37-8.

⁷ See Schwan-Behrens, *Grammaire de l'Ancien Français*, traduction française par Oscar Bloch, 2nd edition, Leipzig, 1913, § 283.

⁸ Oxford, 1937, Plate 18. It is described as 'one of the most remarkable antiquities in Europe', p. 138.

long before the artists and homily-writers tried to depict or describe devils.

Anyhow whether it be a beak, a snout, a horn, or better still a *tutel*, the image which the artists tried to conjure was that of something protruding, sticking-out, spouting. In his brilliant, though unassuming way the author of the *Ancrene Wisse*, rendered the image more vivid, more picturesque and more conformed to the spirit of demonology by the choice of the word *tutel*, in which both shape and noise are closely associated. It goes with the devil's coach-horses.¹ In the infernal drive the *tutel* of Lucifer, the 'Prince der donckerheit ende van der nederster hellen', *tuteleð* (there as here) *al þ he wule*.

APPENDIX

Gothic *Totila*/*Tutila*

A large number of personal and nicknames found in early records may be associated with the stems studied above. The most famous of these is the name of the Gothic king *Totila*. He was the King of the East Goths (541-552) who was killed in the great battle near Busta Gallorum in 552. His name has come down to us from many sources, unfortunately all derived directly or indirectly from documents written in Latin or in Greek. This is a serious handicap to any study of the word. The various forms in which it survives probably illustrate the efforts of authors (and scribes) to represent the Gothic pronunciation of the stem-vowel. The variations will depend therefore to some extent upon the sounds of contemporary Latin and Greek. It will not be surprising to see Gothic *ô*, which had no exact counterpart in Greek, variably represented by ω [\bar{o}] and *ov* [\bar{u}]. In Latin we should expect *o* [\bar{o}] to be more fixed. This is in fact what we find.² In Greek documents the name appears as *Τωτίλα*,

¹ See J. R. R. Tolkien, *R.E.S.*, vol. i (1925), no. 3.

² For the forms in which the name is recorded see Schönfeld, *Wörterbuch der Altgermanischen Personen- und Völkernamen*, Heidelberg, 1911; Wrede, *Über die Sprache der Ostgoten in Italien*, Strassburg, 1891.

Τωτίλας and *Τουτίλας*, with the variants *Τουτίλλας*, *Τουππίλας*, *Τῶλατι*, *Τουπιλλας*, *Τώπιλλα*. In Latin documents *Totila* is the usual and most frequent form. The variants are either mere errors as *Tolila* or concern only the representation of the consonant as in *Thotila*, *Tothila*, *Thothila*, *th* being frequently found for *t* (a not unusual representation of Germanic *t* in Latin MSS.). There remain only the sporadic variants *Totilla*, *Tottila*. There is, however, a rare spelling *Tutela*, occurring as a variant of *Totila* in an *Epitome Constitutionum Justiniani de reformanda Italia*. *Tutela* suggests assimilation to a common Latin word *Tutela*. Cf. Holder (*op. cit.*) s.v. *Tütēla*. More interesting is the form *Tutila* apparently occurring only in two works. Firstly in the Liber III, § 43, of the *Chronicarum quae dicuntur Fredegarii*, apparently composed in Burgundy in the seventh century. In this chapter we may suppose *u* to represent the sound [u], since the author was probably a Burgundian and appears to have selected this form, although the form *Totila* was more frequent in the Latin sources. Attention, however, should be drawn to the fact that in Liber III (as elsewhere in this composite work) the variation *o/u* is seen in Latin words showing *ō* in stressed position as in *gluria*, *victuria*. The same variation was also introduced 'ab indoctis amanuensibus saeculi IX' who transcribed *Agnelli Liber Pontificalis Ecclesiae Ravennatis*, in which the inflected form *Tutilano* occurs in *et pugnavit cum Tutilano rege* (§ 62 *De Sancto Ursicino XXIII*). But the fact that the form originated from an Italian author and was transcribed by 'ignorant' Italian scribes lessens the value of such a spelling in a word apparently recorded once in this work.

The form **Tōtila* would explain most of the forms in the Latin or Greek documents, though the co-existence of a form **Tātīla* would undoubtedly make easier the interpretation of the Latin-German form *Tutila* and possibly the Greek forms showing *ou*. Jacob Grimm¹ long ago explained *Totila* as meaning Lat. *Naso* or *nasutus* and referred it to Bavarian

¹ *Z.f.d.A.*, vi. p. 540.

zuzel ' Schnauze ', OE. *tōtian*, Du. *tôt* and *tuit*. This explanation was rejected by Wrede.¹ His principal reason being this, that Grimm's explanation assumes Gmc. Gothic *ô* in the stem-vowel whereas the earliest Latin sources show only fixed *o*. This he assumes must represent Wulfila *au* (probably [ǫ]), hence he will derive a Latin *Totila* from Gothic **Tautila*.

If we accept this ultimate origin of the name its history must remain obscure, unless **Taut-* is taken as the full grade, otherwise unknown in Germanic sources, of the stem *tūt-*. But the very nature of the stem *tūt-* is against such an assumption. As suggested in Part I, it is a syllable which is likely to be reinvented or readopted in onomatopoeic function at any time in any language, specially in Germanic but not limited to it. This may be illustrated by the Greek dialect bird-names *τυτώ*, ' owl,' *τοῦτις*, ' blackbird,' cited by Hesychius.²

Although accepting **Tautila* as the Gothic form of Latinized *Totila*, Kögel³ rightly rejects Wrede's identification of the name with Celt. *Toutela*, *Toutillus*, which contain the Celtic equivalent of Gothic *Thiuda-*. His final explanation is that *Totila* is a nickname meaning ' ein kleiner dicker Kerl '. This he supports by reference to O.N. *túta* ' a teat-like prominence ', and also used as a name for a dwarf, *tútna* ' to be blown up ', *tútr* ' dwarf ', *tota* ' a teat or teat-like protuberance '. But he confuses his argument by citing also OE. *tōtian*, which cannot be related to Gothic **taut-* by normal ablaut.

A possible explanation of the vowel-variations in the name may be sought in the assumption that the variation **tōt-/*tūt-*, which we have studied in the Western Germanic area, already occurred in Gothic. There is little need to assume a Gothic form **Tautila* at all. In fact only the rare Old High German name *Zozzolo* would support its existence provided this is correctly interpreted as containing *zôzz*. **Tōtila/*Tūttila* would in that case be Germanic formations with the diminutive suffix *-ila* as in *Attila*, *Wulfila*, and would mean ' with a snout ', that is the very meaning suggested

¹ *Op. cit.*, pp. 135-7.

² See Boisacq, *Dictionnaire Etymologique de la Langue Grecque*, 3rd ed., Heidelberg, 1938, s.v. *τυτώ*.

³ *Z.f.d.A. Anz.* 18, pp. 57-8.

by Grimm almost a century ago. Without the suffix the name would appear probably as **Tota* in the same way as *Baduila*, the official name of the Gothic King, was formed from *Badua*, for which the evidence is as follows: Jordanes, *Totila qui Baduila*,¹ and *Badua, qui Totila nuncupabatur*.² Names of this form without the suffix are well evidenced in:—

(a) Scandinavian, where it is recorded as ODan. *Toti*, *Tote*; OSw. *TutiR*. ODan. *Toti*, *Tote* survives in Danish place-names as in *Toelt*, recorded in 1211 as *Toteholt*, and in *Totebo*.³ Nils Ödeen in his *Studier i Smålands Bebyggelse Historia*,⁴ cites *Totamåla* (and the variant *Tottamålla*), which he describes as a "boställe i Långsjö". The name is recorded as *Toti*, *Totius* in the Domesday Book and probably survives in the English surname *Tottie*, *Totty*.⁵ The name *TutiR* is recorded in Old Swedish runic inscriptions.

(b) In Old High German the name is recorded as *Zozo* (rare, see above), *Zuazo*, *Zuozo* and the more frequent *Zuzo* and *Zuzzo*. It also occurs in Old High German place-names as in *Zuzenowe*, *Zozunbach*, *Zuzenheim*, *Zuzestat*, *Zuzeleiba*.⁶ Besides these forms there also occurs the well evidenced *Zotto* (with the sporadic variant *Zoddo*) and the less frequent *Zuto/Zutto*, which Förstemann refers to OE. *Tota/Totta*; *Tutta*, *Tuda*, and *Tudda*.⁷ See below. Besides these masculine names Förstemann cites a feminine name *Tota*; and describes the use of initial *T-* in *Tottonthorra* as caused by a Low German influence.⁶

(c) In Old English the names *Tota* and *Tuta* are well evidenced. The numerous forms recorded in Searle's *Onomasticon Anglo-Saxonicum* show the variants *Totta* and *Tutta*,

¹ *Romana*, Mon. Germ. Hist., Berlin, 1882, p. 50/29.

² Mommsen, *Liber Pontificalis*, Mon. Germ. Hist., Berlin, 1898, p. 153/9; Duchesne, *ibid.*, Paris, 1886, p. 298/12.

³ See *Danmarks Stednavne*, no. 2 (1929), p. 19.

⁴ Lund, 1927, p. 273.

⁵ For another explanation of the name, see Bardsley, *op. cit.* s.v. *Tottie*, *Totty*.

⁶ For further examples see Förstemann, *op. cit.*, vol. i, s.v. *Tot*.

⁷ *Op. cit.*, vol. ii, s.v. *Zot*.

in which the long consonant has probably no phonetic value. *Tota/Totta*, *Tuta/Tutta* must probably be considered as what Max Förster¹ would call *Koseformenpaare* of the type *Ada/Adda*, *Beda/Bedda*, *Tuda/Tudda*, *Uda/Udda*, so well evidenced in the Germanic languages and in this name particularly.

Both names are recorded in English place-names and survive in *Tutnall*, 'Tutta's hill,' *Tuttington*, 'the "tūn" of Tutta's people'; *Tottington*, 'the "tūn" of Tota's people,' *Tottenham*, 'Totta's ham'. But here again confusion between *Tota/Tuta* makes discrimination sometimes impossible.

It remains curious that outside the Gothic name *Totila* we have no clear evidence of a nickname of this precise form though similar names referable to **Tūtil-* are widespread. To the names cited in Part I, others might be added as OE. *Tytiling* and *Tottel*. The former is recorded in the *Genealogies*² immediately before *Tytila* cited in Part I. It is probably a cognate of the Old Swedish name **Tytinger*, surviving in the place-name *Tysslinge* in which Sahlgren³ notes the same change *-tl-* > *-ssl-* as seen in *vassle* < *vatle*, *nässla* < *nätla*. OE. *Tottel* is recorded in a charter⁴ of *Aedelsige* dated 1065⁵ in *hiore dohter ut of Totteles cynne*. The name *Ty̅t̅el* is well evidenced in English place-names, although later developments make it very difficult to distinguish from *Tottel*. A clear example of this is to be found in the thirteenth century spellings *Totelscumbe* and *Tottlesworth* of *Telscombe* (Sussex) and *Tetsworth* (Oxfordshire) respectively. The earliest records of both names, namely *Titelescumb*, *Tytelescumbe*, *Tytelesworth* connect them with the Old English name *Ty̅t̅el*. The *e*-spellings in these names, which survive in their present forms are normal in these areas. Alexander⁶ queries the late thirteenth century spelling *Tottlesworth*, which

¹ *Themse*, München, 1941, p. 283.

² *O.E.T.*, p. 171/18.

³ *Nordiska Ortnamn*, I, *Språklig och Saklig Belysning*, 7-9, Lund, 1927, p. 103.

⁴ KCD, no. 975.

⁵ See Redin, *op. cit.*, p. 140.

⁶ *The Place-Names of Oxfordshire*, Oxford, 1912, p. 205.

he would emend to *Tettlesworth*. It is probably a Middle English spelling for *u*, alluded to in Part I. And the late thirteenth century spelling *Totelescumbe* may be accounted for in the same way, although a possible influence of *Tottel* must not be dismissed. Other place-names such as *Tileham* (Sussex) and *Tittlehall* (Norfolk) may be added.

ADDITIONAL NOTE ON THE FLEMISH WORDS CITED IN THIS ARTICLE

These pages were already in print when I became acquainted with Professor Verdeyen's edition of *Het Naembouck van 1562, Tweede druk van het Nederlands-Frans Woordenboek van Joos Lambrecht* (Liège, 1945). *Het Naembouck* "présente cette particularité qu'il est annoté du commencement à la fin... l'annotateur n'est autre que Cornelis Kilianus... La comparaison des nombreuses annotations de l'exemplaire du *Naembouck* avec les deux dernières éditions du dictionnaire de Kiliaan établit que Kiliaan s'en est déjà servi pour la seconde édition, celle de 1588, en apportant certaines modifications à l'orthographe et à la forme de certains mots, ainsi qu'à certaines localisations régionales. Cette dernière constatation permet de conclure que, dans son *Etymologicum*, Kiliaan entend par la localisation *fland*, les deux Flandres." (pp. 251-2.) Since I cited many Flemish words in the course of this article, I thought it might be worth while to see if by any chance some of them could be traced in the *Naembouck*, and in the affirmative in which form(s) they were recorded. I was fortunate enough to find the following words belonging to the stems *tūt-* and *tüt-* respectively, and to see that they agree exactly with the spelling of the West Flemish place-names cited above. They are *tuten* : *corner*, *de hooren tuten my* : *les aureilles me cornent*, *tuter* : *corneur*, *tutijngh* : *cornement*, *tutinghe der ooren* : *tintement des oreilles* ; *schoe met tuten* : *soulier à cornes* and *tote/mule* : *museau*. The French glosses provide a further proof to the meaning we gave to the stem *tüt-*.

OLD ENGLISH VERSE AND ENGLISH SPEECH RHYTHM

MARJORIE DAUNT

IT is with considerable diffidence that this paper is offered to suggest an entirely new approach to the vexed question of Old English 'versification'. So much has been written, from the time of Sievers and his (later repudiated) 'five types' down to the recent contributions of J. C. Pope and Kemp Malone, that a revolutionary suggestion needs careful consideration.

All the previous commentators have made (often unconsciously) a fundamental assumption, namely, that in Old English poetry we are dealing with a 'poetic metre', a definite artistic medium which needed to be acquired, of the same nature as later verse forms, though quite different in shape. J. C. Pope, the latest and most daring investigator of Old English verse since Sievers, says 'a hitherto unexploited device—one that is altogether natural under the circumstances yet hardly to be discovered except by accident—has proved of amazing efficacy in producing the metrical order and expressiveness *which we associate with competent poetry.*'

In one way or another this assumption that a metrical order or regularity, that we can recognize as such, must be produced, lest our ancestors be revealed as devoid of musical sense, underlies all the work in this field. It is not necessary to recapitulate all the theories of earlier writers, which are excellently summed up in the first thirty-seven pages of J. C. Pope's book, *The Rhythm of Beowulf*, and well known to all readers of *Beowulf*.

One simple oversight seems to have distorted much of this work, and that is the failure to recognize the importance, in relation to certain kinds of poetry, of *the spoken language*. All the talk which has gone on, and still goes on, about 'literary language', 'poetic diction', etc., has obscured the

fundamental fact that the foundation of poetry was what is often called contemptuously 'colloquial speech'. In later and more sophisticated periods it is just conceivable that a poet might compose with pen and paper, but for poetry such as Anglo-Saxon, or Chaucer's longer poems, or Shakespeare's plays, the contemporary spoken language is never far away.

Germanic poetry, like that of any other Heroic Age, dates from a period when 'prose' was non-existent and there was only spoken language and spoken language *arranged for remembrance*. Whether the 'remembrance' required was for instruction or pleasure, it would be achieved, one imagines, better if the shape of the spoken language was kept than if it was much distorted into 'metre'.

This point is plainly to be seen in the nursery rhymes which represent the spoken language so well that they are used to teach English babies English, and probably Chinese babies Chinese. The late Professor Lloyd James recommended 'This is the House that Jack built' to foreigners studying English. Rhythm certainly helps remembrance, *but it must be rhythm within the framework of the spoken language*. Old English poetry, as we have it, represents a very much developed form with high artistic merit. Such poetic trappings as diction, kennings, compound words, etc., should not be allowed to obscure a basis of what at present may be called *language with alliteration* which is common to all kinds of old English verse.

Alliteration is a feature found in the earliest poetry of several countries. It appears to provide the rim-ram-ruf which helps remembrance. Its purpose originally was both rhythmic and utilitarian, but only very faintly artistic. This leads on to the theory which it is the aim of this article to put forward. *Old English verse is really conditioned prose*, i.e. the spoken language specially arranged with alliteration, but arranged in a way that does no violence to the spoken words. It is true that the vocabulary of the extant Old English poems contains many words apparently confined to poetry

and not 'colloquial', but they are presented in a framework of ordinary words and they are native in origin, not artistic importations. And here we are up against our first difficulty. We do not know much about spoken Old English, but we do know a little; we have the recorded conversation of Cædmon and the Angel, which is admirably colloquial though too brief. We also have Alfred's conscientious record of his conversations with Ohthere and Wulfstan, which, in brevity of sentence and word order, differ markedly from such work as the Preface to the *Cura Pastoralis*, and suggest a careful and exact reproduction of what the travellers said; such a reproduction as Alfred, with his desire for truth, might be expected to make. Then there are the glosses, which have not been sufficiently explored for colloquial forms. In the gloss to the Lindisfarne Gospels (Skeat, p. 18) there occurs the gloss *ad patrem = tom fæder*, a form which is extremely valuable as it shows that the English at that early date were telescoping unstressed forms and had a use exactly parallel to the German *zum Vater*. It seems that formal writing, then, as now, wrote out in full many unstressed forms, but even when that very text was being read the shortened form may have been used. To take a modern example, *The Importance of Being Earnest* is usually printed with *have not, shall not, is not* written in full, but no actor ever says his lines like that. So that it is probable that the relationship of the spoken to the written word in Old English was not as rigid as has often been supposed.

It is, of course, difficult to say how far poetry influenced the spoken word in a period when everyone listened to it and was expected to make it, but the influence of the Bible in later times would suggest that, made out of the spoken language at its best, it helped to keep it at its best.

The very best work that has been done on Anglo-Saxon verse is unquestionably that of Sievers. His careful descriptive method has resulted in the establishment of certain types of word grouping which remain real even though he himself later denied them as metre. When Sievers formulated his

'five types' he did so by methods of classification, and A is A because it is the most frequent. For the purposes of this paper the basis of Sievers' groupings is accepted as sound, though details may not always be acceptable. 'The descriptive portion of Sievers' work is sound and must always be of service,' says Pope (p. 6). What neither Sievers nor any other writers, to my knowledge, have ever pointed out, is that the 'five types' are *language patterns*, not *metrical patterns*. They are *pieces* of language and within the piece the word order is usually normal, while the poetic effect is achieved by repetition and alternation of pieces. A may be A because it is the most frequent, but it is most frequent because it is the shape of nouns and adjectives grouped together and nouns and adjectives occur most frequently in the spoken language. So A is A also because it is the shape nouns and adjectives were then. The pattern /x/x (or /xx/x etc.), is likely to appear in a language with root accent and a large number of dissyllabic forms in noun and adjective.

The recognition of this 'language grouping' is so important that an analysis of 100 lines of *Beowulf* is not waste of time. The lines have been taken at random, ll. 1255 *swylt æfter synnum* . . . 1354 *Grendel nemdon*. This represents 200 'half-lines' of which A = 94, B = 32, C = 41, D = 21, E = 10, and doubtful lines = 2. The ninety-four A-type groups can be further classified, and the proportions are significant. The largest group is that of *adjective (including past participle) and noun* which amounts to thirty-two, such pieces as *yldra broþor*, *cealde streamas*, *heardecg togen*, *dreame bedæled*, which could not be any different in prose; with this group is allied that of *noun and noun (including infinitive)*, which is 19, e.g. *Grendles modor*, *moras healdan*, *wyrpe gefremman*; 16 is the next largest group, of *noun (subject or object), and finite verb*, e.g. *grendel nemdon*, *deadne wisse*, *helm ne gemunde*, *cearu wæs geniwod*, these again are completely prose-like (not prosaic) in form. A group of 8 represents *finite verb with prepositional phrase*, such as *lifde æfter lapum*, *heo wæs on ofste*, *com þa to Heorote*; *clauses and half-clauses* amount to 6,

ne frin þu æfter sælum, hwæpre he gemunde. The remaining oddments are : *noun and preposition and noun* = 4 ; *finite verb and infinitive* = 3 ; *adverb and past participle* = 2 ; and *one* each of *adjective and adjective* ; *finite verb and finite verb*, *adjective and finite verb*, and *adverb and finite verb*. What is of main importance is that of 93 groups 67 are formed by combinations of nouns and adjectives. It is not necessary here to give the exact statistics of the whole 100 lines, but it is important to point out the *proportions* of the various grammatical units. B as a whole produces 32 groups, of which 20 are whole or part sentences or clauses, all ending with a preterite singular of a strong verb ; and *nu oper cwom, heo þa fæhþe wræc, þa heo to fenne gang.* This is an exceedingly high proportion.

The group of 40-C-types is largely composed of 16 prepositional groups such as *æfter neodlape, æfter weaspelle, on weres wæstmum*, and 18 part or whole sentences or clauses (only *one* of which contains a strong preterite singular.), e.g. *ðe him God sealde, þanon woc fela, for þan he to lange.* Turning to the D-types we find very few finite verbs, *is* and *wæs* occur once each, and *gehnægde* and *eode* appear, but 15 of the 21 D-groups end with a trisyllabic noun or adjective, e.g. *Ingwina, hilderinc, Hroþgare, Scyldingz*, and most of these are *noun + noun* or *adjective + noun*. E groups, 10 in all, *all* begin with a trisyllabic noun or adjective, and as might be expected sometimes end with a strong preterite singular, but only 3 times as against 7 noun endings. It is not suggested that the results of this analysis would be exactly the same all through *Beowulf*, but this result is striking enough to suggest that these groups or patterns are the shape they are because the language itself is that shape and not because the poet *arranged* them.

The reasonable conclusion surely is that poetry, at that time, was made with *pieces of language*, groups of spoken language arranged to run easily and not monotonously, on the breath.

It is a fact that if an audience is to listen for any length

of time to a recited narrative (or even to acted dialogue), the medium must not be an artificial verse form, but must follow the natural language. Can one imagine a greater form of torture than to listen, night after night, to a story set in the metre of *Hiawatha*? The dramatists of the sixteenth century very soon broke away from regularity of verse and undeniably approximated considerably to the spoken word—culminating in Shakespeare, who, as C. L. Wrenn maintains, brought colloquial language on to the stage to a much greater degree than has always been realized.

It is immaterial whether *Beowulf* itself was actually read aloud or not, the vehicle was definitely used in many poems which did provide the main entertainment of men who lived hard outdoor lives, ate and drank well—and then *listened*. Nothing artificial or difficult would have been accepted as a pleasure, the tale must have been easy to understand.

If it is true that the A-E types (as it is convenient still to call them) represent shapes of spoken language, then it ought to be possible to find them, or something like them in any existing Anglo-Saxon which can be considered in any way colloquial, and as possible examples, the works already mentioned may be taken. It must, however, be remembered that even in poetry the half-lines do not necessarily stand apart, but, as Kemp Malone has shown, not only is the unit a half-line or a line, but the sense is often run on. *þa wæs on healle heardecg togen*, in the special connection in which it is used, the men waking in horror to find Grendel's mother in the hall, can hardly have been said with much pause in the middle. This has a bearing on the arrangement of the shapes. Such a line as *se þe wæteregean wunian scolde* is really

x x / / x / x / x

A very important link in the argument is provided by the 'extended types' of Old English. Here the line shows an increased number of stresses and the 'pattern' can be regarded as an enlargement of one type or a mixture of two, as the case may be.

Arfast æt ecga gelacum = / x x / x x / x = A + A
 or / \ x / x x / x = E + A. Whichever way it be taken
 it is the bridge from prose to 'verse', for the *shape* of Old
 English, with many dissyllables, monosyllables, and few
 polysyllabic words, except compounds, ensures a regularity
 of stress by sheer statistical necessity.

Even at the risk of repetition it is perhaps as well to
 emphasize once more that dissyllabic words such as most
 nouns, adjectives, and finite verbs were in Old English,
 naturally combine into A groups, while prepositional phrases,
 beginning as they do with an unstressed word followed by a
 stressed and inflected form, would naturally shape C,
 important monosyllables would be the foundation of B and
 three-syllable words the basis of D and E, and this must
 happen to a large extent quite independently of the poet's art.

If we turn now to such Old English prose as has already
 been suggested as colloquial or near it, we find a very definite
 rhythmic shape. Cædmon's talk with the Angel, if it is given
 the sentence stress which seems natural to the situation
 comes out like this:—

Angel. *Cædmon! Sing me hwætweġu* = D.

Cædmon { *Ne conn ic noht singan* = A.

or { *Ne conn ic noht singan* = C.

And ic for þon | of þissum gebeorscipe | ut eode | = $\frac{1}{2}$ B
 + D + $\frac{1}{2}$ D.

Ond hider ġewat = B.

for þon ic noht cupe = C.

Angel. *Hwæþere þu meahst me singan* = A + D.

Cædmon. *Hwæt sceal ic singan?* = A.

Angel. *Sing me Frumsceaft* = A.

This is surely rather a remarkable result, for the syntactical

sense has been carefully respected and still the 'pattern' stands out.

The opening lines of Alfred's account of his conversation with Ohthere can very easily be reconstructed into a dialogue. The repetition of *he sæde* or *he cwæþ* shows where Alfred's opening questions must have come, and as Ohthere warmed to his tale *he sæde* is less frequent; but it comes where a new branch of the subject is opened, for example, turning from the tribute paid by the Laps to the size and character of the land of the Norwegians, or from Norway in general to the particular district of Halgeland.

Ohthere sæde = A.

his hlaforde = C.

Ælfrede cyn(in)ge = A.

þæt he | ealra Norþmonna = D with upbeat.

norþmest bude = A.

He | cwæþ þæt he bude = A with upbeat.

on þæm | lande norþweardum = D with upbeat.

wiþ þa westsæ = A.

He sæde þeah = B.

þæt þæt | land sie swiþe = A with upbeat. } forming

lang norþ þonan = D. } a line

} unit.

Ac hit is eall weste = C.

buton on feawum stowum = C.

Styccemælum = A.

wiciaþ Finnas = A.

These extracts have been taken at random, with no intention of 'special pleading'. If there is any truth in the thesis of

this paper, that old English verse is really the spoken language rather tidied up, then we should expect to find the rhythm a little more ragged in ordinary colloquial use, but on the contrary, the irregularities are strangely few.

If it be admitted that when all is said colloquial Old English is almost *x*, the unknown, there still remains one colloquial English about which we *can* know something (though we seldom do), namely our own. It is obvious that unless making a speech, or drunk, the ordinary Englishman talks in a series of short 'pieces of language', linked syntactically into longer groups. Putting aside very short units of one, two, or three syllables, such as 'yes', 'why not?' or "He's gone out", which must have formed part of the Saxon's conversation also, we may consider the four (or more) syllable groups.

The sentence "The man has done that" can be said in a number of ways, with different stress and intonation and a change of significance:—

(1) $\overset{x}{\delta}\overset{\prime}{\partial} \overset{\prime}{m}\overset{x}{\alpha}\overset{\prime}{e}\overset{\prime}{n}\overset{x}{z} \overset{\prime}{d}\overset{x}{\lambda}\overset{\prime}{n} \overset{\prime}{\delta}\overset{\prime}{\alpha}\overset{\prime}{t} = B.$

(2) $\overset{x}{\delta}\overset{\prime}{\partial} \overset{x}{\overset{\prime}{m}\overset{\prime}{\alpha}\overset{\prime}{e}\overset{\prime}{n}} \overset{x}{\overset{\prime}{z}} \overset{\prime}{d}\overset{x}{\lambda}\overset{\prime}{n} \overset{\prime}{\delta}\overset{\prime}{\alpha}\overset{\prime}{t} = E.$

In each of these the implication is on 'man', either it is a special man, or not a woman, etc. There is also a strong emphasis on the thing he has done.

(3) $\overset{x}{\delta}\overset{\prime}{\partial} \overset{\prime}{m}\overset{x}{\alpha}\overset{\prime}{e}\overset{\prime}{n}\overset{\prime}{z} \overset{\prime}{d}\overset{x}{\lambda}\overset{\prime}{n} \overset{x}{\delta}\overset{\prime}{\alpha}\overset{\prime}{t} = C.$

(i.e. 'He has finished his job, what shall he do next?')

(4) $\overset{x}{\delta}\overset{\prime}{\partial} \overset{\prime}{m}\overset{x}{\alpha}\overset{\prime}{e}\overset{\prime}{n} \overset{x}{\overset{\prime}{z}} \overset{\prime}{d}\overset{x}{\lambda}\overset{\prime}{n} \overset{x}{\delta}\overset{\prime}{\alpha}\overset{\prime}{t} = A$ with up beat.

(The sense is much like (3).)

Or again, 'Why don't you go?' can be stressed as A, B, C. E. or even D, or

$\overset{\prime}{w}\overset{\prime}{a}\overset{\prime}{i}! \overset{\prime}{d}\overset{\prime}{o}\overset{\prime}{u}\overset{\prime}{n}\overset{x}{t} \overset{x}{j}\overset{\prime}{u} \overset{\prime}{g}\overset{\prime}{o}\overset{\prime}{u}? \text{ Where the sense is somewhat changed.}$

It has been pointed out by several writers on the subject that modern English parallels can be found for what they call 'Old English metre', e.g. 'Tom's sending it' = D, 'I'll come to-day' = B, etc., but no one seems to consider this

anything more than an interesting coincidence. It is never suggested that the living language still flows in its ancient channels in spite of loss of inflexions and foreign influence. The changes in sentence rhythm, following change of stress, from one 'type' to another in a short language group seem to the present writer highly significant, and of the greatest importance.

Foreign loanwords or new coinings of words mould themselves in the same way. *Vegetables*, *secretary*, *melancholy* to take three examples each have two distinct pronunciations, ['vedʒi'təblz] ['sekri'teri] ['melən'kəli] are the forms heard from less educated speakers while ['vedʒtəb'lz] ['sekrətri] ['melənkli] are the usual pronunciations of the better educated.

A small but interesting point adds emphasis to this continuity of speech rhythm. In April, 1941, Dr Hugh Dalton, in a BBC broadcast, said, 'Bad news bluntly told, braces our people,' which, complete with three alliterating stresses, might well be a line from *Beowulf*. Dr Dalton's reading is so extensive that it is possible that he has read *Beowulf*, but, at that moment of our war-time life, anything he said must be taken as entirely natural and unself-conscious.

If this thesis is true, namely that *modern spoken English has preserved much of the pre-Conquest speech rhythm*, it should be traceable in colloquial written English, in language which is really the spoken word recorded, or language which is intended to be memorized easily, and to impress people and carry a message. Advertisements are seldom intended primarily for the highly educated, they *are* intended to stick in the mind till the weak moment comes. Take this example from *The Evening News*, 4th April, 1939 :—

^x ^x ['] ^x [']
Get your Easter shoes = B.

^x ['] ^x [']
at Abbots now. = B.

^x ['] ^x ^x ^x ['] ^x
Wherever you go for Easter = A with upbeat.

^x ^x ^x ^x [']
go in comfort, in style. = B.

^x ^x ['] ^x [']
Go in Abbots shoes. = B.

^x ^x ['] ^x ['] ^x [']
There are only two days left = E with upbeat.

^x ['] ^x [']
To get a pair = B.

^x ^x ['] ^x ^x ^x ['] ^x ['] ^x
of the smartest shoes in London = A with upbeat.

['] ^x ^x ['] ^x ['] ^x [']
Hundreds of pairs to choose from = A + A.

['] ^x ['] ^x ['] ^x [']
Sports shoes, promenade shoes. = A + E.

['] ^x ['] ^x ['] ^x [']
High fashion shoes for town = E + B.

['] ^x ^x ['] ^x [']
Come and be fitted = A.

^x ^x ['] ^x [']
by our expert staff = B.

^x ^x ['] ^x ['] ^x [']
and you needn't give your feet = B.

^x ['] ^x [']
another thought = B.

This is really a striking tour-de-force. The composer of the advertisement wrote quite as much of a poem as many of those embalmed in the *Saxon Chronicle*.

Political catchwords are meant to lodge in the mind of the unwary listener and influence his vote. A whole list is given by Lord Oxford ('*Sixty Years of Parliament*') of the catchwords of his time. Here is a sample:—

^x ['] ^x ^x ^x ['] ^x ['] ^x
Conspicuous by absence = A with upbeat.

['] ^x ['] ^x
Bag and Baggage = A.

^x ['] ^x ^x [']
A Leap in the Dark = B.

^x ['] ^x ['] ^x [']
The Grand Old Man = B.

['] ^x ['] ^x ['] ^x [']
Mother of Parliaments = D.

['] ['] ^x ['] ^x ['] ^x ['] ^x [']
Six Omnibuses through Temple Bar = D + B.

The reporters who jot down the day's happenings at

breakneck speed for the evening papers seldom have time to polish their work. From *The Evening Standard* (9th February, 1944) comes this:—

*Summons*es were heard = E.

at | *Guildhall to-day* = E with upbeat.

against *William* (Charles) *Foyle* = B.

(He would be William Foyle.)

charging him with making = A.

statements to obtain tea = E.

which he knew to be false = B.

The alleged statements = C.

Con|cerned the total number = A + A with upbeat.

of tea permits = C.

he|had in his possession = A with upbeat.

He was a|ccused of procuring = A with long upbeat.

quantities of tea = E.

otherwise than under = A.

buying permits = A.

One last example, out of many that have been collected, is provided by the late Lord Oxford. It is well known that he was a great scholar and that his public speeches go, without any difficulty, into Ciceronian prose. It is the more startling that his letters to Margot Tennant are totally different in vocabulary, rhythm, and (naturally) style. Moved by real feeling he wrote as if he were speaking and the proportion of Latinate words is very small. The result is a poem.

Looking back on our talk yesterday = $\frac{1}{2}$ E or D.

I find of course = B.

that I left many = C.

things unspoken. = A.

The one that I should most = B.

like to have said, = E.

if I could have found = E. } taken as
words, you can guess. = E. } a unit.

It was better = A.

to be business like, = B.

matter-of-fact, = E.

even frigid, = A.

as I think I was, = B.

for how could I = C.

ever tell you = A.

what you have been to me? = E.

At once the hope = B.

and despair of my life. = B.

So near and so far, = B.

revealing to me = E (or A).

the unseen and unattained, = B.

now opening = D.

and now seeming to shut = B.

the Gate of Paradise. = D with upbeat.

This, as contrasted with his usual epistolary style is quite amazing. The conclusion drawn here is that in so-called Old English 'verse' we are faced with a tidied form of the spoken language, i.e. prose, and that the 'pattern' is the pattern of the natural language shapes, that this rhythm has survived for centuries and is still largely the mould in which we cast our speech, unless a Latinate rhythm is superimposed by a special education, and even then the native swing often emerges. It is possible that the preserving medium has been stress and intonation, but this is a field awaiting exploration, and no more is intended here than to draw attention to the facts.

As an epilogue to the theory presented above may be added the suggestion that it is the presence of these particular rhythm-shapes that makes the verse of Shakespeare and Chaucer so timeless in its appeal and so easy to listen to. The monotonous regularity of *Gorboduc* did not survive, and quite soon the dramatists were swinging, across the pulse of their five beat blank-verse line, a kind of rhythmic prose. This is exactly what Chaucer did before them. Regularity to a *metrical* pattern can be delightful for a line or so, or in a short poem, but could not be listened to for hours on end. A few odd lines from Chaucer can illustrate the point:—

$\overset{x}{I} \overset{/}{n} \overset{x}{l} \overset{/}{i} \overset{x}{s} \overset{/}{t} \overset{/}{h} \overset{x}{r} \overset{/}{y} \overset{x}{e} = A.$

$\overset{x}{a} \overset{/}{n} \overset{/}{d} \overset{/}{a} \overset{/}{y} \overset{/}{s} \overset{/}{l} \overset{/}{a} \overset{/}{y} \overset{/}{n} \overset{x}{h} \overset{/}{i} \overset{/}{s} \overset{/}{f} \overset{/}{o} = D$ with upbeat.

This line could never, with any sense, be made into a regular 'five beat iambic' line.

$\overset{/}{S} \overset{/}{i} \overset{/}{n} \overset{/}{g} \overset{/}{i} \overset{/}{n} \overset{/}{g} \overset{x}{h} \overset{/}{e} \overset{/}{w} \overset{/}{a} \overset{/}{s} = E.$

$\overset{x}{o} \overset{/}{r} \overset{/}{f} \overset{/}{l} \overset{/}{o} \overset{/}{y} \overset{/}{t} \overset{/}{i} \overset{/}{n} \overset{x}{a} \overset{/}{l} \overset{/}{l} \overset{x}{t} \overset{/}{h} \overset{/}{e} \overset{/}{d} \overset{/}{a} \overset{/}{y} = B + B.$

$\overset{/}{F} \overset{/}{a} \overset{/}{i} \overset{/}{r} \overset{/}{e} \overset{/}{s} \overset{/}{t} \overset{/}{e} \overset{/}{o} \overset{/}{f} \overset{/}{f} \overset{/}{a} \overset{/}{i} \overset{/}{r}, = E.$

$\overset{x}{O} \overset{/}{l} \overset{/}{a} \overset{/}{d} \overset{/}{y} \overset{x}{m} \overset{/}{y} \overset{/}{n} \overset{x}{V} \overset{/}{e} \overset{/}{n} \overset{/}{u} \overset{/}{s} = B.$

The last two examples are the same rhythmic shape.

In the line *he who most felingly spekethe of love* the regular five-beat would put no stress on 'most', which in this context seems to demand it.

Nē who most felingly = B + D.

Speketh of love = E.

Is this what Hamlet meant when he said 'Speak the speech, I pray you, as I pronounced it, trippingly on the tongue?' In that very speech

trippingly on the tongue = E.

Certainly his own speech fits his own requirements:—

Angels and ministers of grace defend us seems to have a natural pause at *grace*.

Angels and Ministers of Grace = D.

defend us = $\frac{1}{2}$ A, with upbeat.

or

Be thou a spirit of health or goblin damned
seems to run

Bē thou a spirit of health = E + B.

or Goblin damned = B.

Bring with thee airs from Heaven = E + B.

or blasts from Hell = B.

Be thy intents = E.

wicked or charitable = D.

thou comest in such = B.

a questionable shape = E.

(Or this line might be regarded as A with upbeat + E.)

that I will speak to thee.

This clause could be given only one stress, on *speak*, but more probably Hamlet gave it two stresses, *will* and *speak*.

that I will speak with thee = D.

I'll call thee Hamlet = A with up beat.

King, Father, Royal Dane. O answer me.

The epithets naturally stand out separately, but

O answer me = D.

let me not burst = E.

in ignorance but tell = E.

Here it may be wise to repeat that there is no intention of breaking the line at *burst*, and that E + E is the formula of the line taken as a whole.

Why thy canonized bones, hearsed in death

If 'canonized' is *canonized* then

Why thy canonized bones = A + B.

if Shakespeare used the modern pronunciation

Why thy canonized bones = A + E.

hearsed in death = E.

Have burst their ceremonies = D.

The fact that Shakespeare's verse approximated to natural speech has been accepted for a very long time, but it looks as if the dominance of the dissyllabic units iamb and trochee obscured the rhythmic and metrical importance of the three-syllable units such as / \ x or / x \. A phrase like *most felingly* does not need to be forced into x / x / to make poetry, / / \ x gives and probably always has given just as much rhythmic pleasure. Once this pleasure in the interweaving of rhythmic groups of two with rhythmic groups of three is recognized the line between 'verse' and prose becomes misty.

In conclusion it is to be remembered that this paper is only concerned with the 'verse' medium of work that was originally intended to be read or recited aloud for long periods for the pleasure of an ordinary audience, where the sense had to be conveyed to hearers quickly, and the word order could

not be very greatly distorted. It is probable that many shorter and more formal poems of a definite metrical pattern show the same rhythm-shapes here and there, but that is too large a question to open here.

As to Old English 'verse' the key to unlock its music lies hidden in the spoken language of the time, so that any attempt to 'formulate' it, whether in terms of musical notation or metrical feet is likely to go astray. The only thing that can be safely done is to describe it, as Sievers so ably did, remembering that he himself was trying in his old age for some more living and elastic description.

$\begin{array}{cccc} x & / & x & / \\ \text{You never know} \\ x & / & x & / \\ \text{the world aright} \\ x & x & / & x & / \\ \text{till the sea itself,} \\ / & \backslash & x & x & / \\ \text{floweth in your veins,} \\ x & x & x & / & x & x & / \\ \text{till you are clothed with the heavens} \\ x & / & & x & x & / \\ \text{and crowned with the stars} \\ x & / & x & / \\ \text{you never know} \\ x & / & x & / \\ \text{the world aright.} \end{array}$

Is this verse or prose ?

NOTE.—Since writing this article, I have read for the first time 'The Fifteenth-Century Heroic Line' by C. S. Lewis. (English Association, *Essays and Studies*, 1938.) Mr. Lewis comes near to the line of my argument in noting the similarity of some of the 'half-lines' of *Beowulf* with certain fifteenth-century lines. He recognizes the importance of D and E types, but to him they are still 'metre'. The types are 'sharply divided'. 'A half-line of Anglo-Saxon verse, once metrically understood, can hardly be heard, even by the inner ear as anything but what it is.' I am not sure that I understand this remark, but it seems to attribute to 'metre' an inevitability which I hold to rest on the authenticity of spoken language.

ETUDES HITTITES

Par J. DUCHESNE-GUILLEMIN

BIEN que le hittite joue depuis longtemps un rôle important en grammaire comparée, il n'en existe pas encore de dictionnaire étymologique et le seul répertoire général qui aurait pu en tenir compte, le *Vergleichendes Wörterbuch* de Walde et Pokorny, le laisse encore systématiquement de côté.

Les comparatistes qui veulent pouvoir utiliser les faits hittites en sont réduits à rassembler chacun pour soi les éléments d'un lexique étymologique. Leur tâche est d'ailleurs grandement facilitée depuis l'apparition du *Hittite Glossary* de M. Sturtevant, dont les notes bibliographiques permettent de retrouver pour chaque mot la ou les étymologies qui ont été proposées jusqu'en 1936, date de la seconde édition de l'ouvrage ; la revue *Language* fournit les moyens d'une constante mise à jour.

En procédant pour mon propre compte à cette compilation — en liaison avec mes études sur le tokharien, j'ai dès l'abord constaté que le nombre des étymologies connues, en hittite, se laissait aisément accroître. C'est le résultat de mes recherches dans ce sens que je crois utile de livrer à la discussion — comme je l'ai fait pour mes *Tocharica*, *BSL* xli, 2. Je pense fournir ainsi une base de plus à ce lexique étymologique du hittite que de plus qualifiés se décideront peut-être à publier.

Les remarques qu'on va lire, et qui sont essentiellement fragmentaires, acquièrent par leur masse une portée générale : en augmentant de manière appréciable le nombre des étymologies hittites, elles confirment la conclusion à laquelle aboutissait, en 1934, l'enquête de M. H. Pedersen dans son glossaire comparatif de la *Muršiliš Sprachlähmung* : la proportion d'éléments étrangers dans le vocabulaire hittite n'est pas supérieure à ce qu'elle est dans n'importe quelle autre langue indo-européenne, en grec par exemple.

Pour faciliter les recherches aux non-spécialistes, j'adopte la transcription du *Glossary*. M. W. Couvreur et, en dernière instance, M. Pedersen ont bien voulu lire le manuscrit des présentes *Études* et le faire bénéficier d'une foule d'utiles remarques.—Depuis la rédaction de ces études, deux ouvrages ont paru, mais me sont restés inconnus ou inaccessibles, vu les circonstances, jusqu'à ces derniers temps. Ce sont Hans Hendriksen, *Untersuchungen über die Bedeutung des Hethitischen für die Laryngaltheorie*, Copenhague 1941, et H. Pedersen, *Lykisch u. Hittitisch*, *ibid.* 1946. J'ai noté ci-dessous la coïncidence de mes résultats avec ceux de ces deux ouvrages, relativement à *arkuwa-*, *halanta-* et *sarnenk-* respectivement.

I

1. *aniya-* “travailler, accomplir, célébrer; labourer; soigner (des bêtes); graver (une tablette)” et ses dérivés *an(n)eske-* “accomplir” et *aniyan*, *aniyaz*, *an(n)iūr* “accomplissement d'une tâche, pensum etc.” se rapportent à gr. *ἀνία*, éol. *ὀνία* “chagrin”, gr. *ἄνιος* “importun, fâcheux”, eux-mêmes apparentés à skr. *anas-* “voiture de charge”, lat. *onus* “fardeau”, et tranchent la question du vocalisme radical primitif, lequel ne peut être que *o. L'évolution sémantique est identique à celle de lat. *labor* “*charge > peine, souffrance, fatigue > travail, effort, labeur”; comparer aussi, pour la dernière phase de cette évolution, got. *arbaiþs* “misère” et all. *arbeit* “travail”, lat. pop. **tripālīāre* “torturer avec le tripalium” > fr. *travailler*, enfin sémit. comm. **m l* “peine, fatigue” > ar. ‘*m l* “travailler”.

2. *hālīs* “enclos, halo etc.” coïncide remarquablement avec gr. *ἄλως* “aire, halo”, jusqu'à présent dépourvu d'étymologie. On posera un **₂el-ōi-*.

3. *ilaliya-* “désirer, convoiter”, *ilaleske-* “id.”, *ilatar*, *ilessar* “désir” sont tirés de la racine de gr. *λιλαίομαι* “désirer, aspirer à”, cf. W.-P. * 393, moyennant une autre forme de redoublement, peut-être comparable à hitt. *im(m)eya-*

“ mêler ” (*im(m)iya-*), de la racine **mey* W.-P. 244 (skr. *máyate* “ échanger ” etc.). Hitt. *lalessar* attesterait un autre redoublement encore, mais l’incertitude de son sens empêche de l’utiliser.

4. *kis(s)a(e)-* “ peigner ” (Götze ap. Meissner, *Beiträge*, § 53, *AJSL* xlvii. 3. p. 197 sq. et p. 199 n. 1) est évidemment la racine **qes* “ gratter, peigner ” W.-P. 449, largement répandue en balto-slave, germanique, grec et celtique.

5. *lāli* “ citerne ” est à rapprocher de *lah(h)u-* “ verser ”, qui vient notoirement de **low* “ laver ” W.-P. 441.

6. *lūris, lūres* “ malheur, humiliation ”, *luriyahh-* “ humilier, jeter dans le malheur ”, *lūriyahheske-* “ id. ” se rattachent à la racine **lew* “ saleté, salir ” W.-P. *406, qui fournit notamment, avec la même évolution de sens, gr. *λῦμα* “ saleté, d’où souillure morale, déshonneur, et fléau, malheur ”, *λῦμαίνω* “ souiller, maltraiter, faire subir d’indignes traitements, faire périr misérablement ”, *λῦμη* “ mauvais traitement ”.

7. *mars-* “ être mauvais, pourri ” repose sur **mer-s*, W.-P. *279, et rappelle de très près m. h. a., b. a. *mursch, murs*, all. *morsch*.

8. *mēni, mene* “ visage, côté du visage, joue ” est proche de lat. *mentum* “ menton ; saillie d’édifice ”, gall. *mant* “ mâchoire inférieure, bouche ”. Le passage de sens est semblable à celui qu’on observe dans lat. *ōs* “ bouche ” > “ visage ”. — Une forme un peu différente du même terme se retrouve dans *menahhanda* “ en face de, contre ”. Il s’agit d’un composé formé avec un 2^d terme *-anda* comme *appanda* “ derrière ” (de *āppa* “ après ”), *arahzanda* “ autour ” (de *arahza* “ id. ”), *kattanda* “ en bas, dans ” (de *kattan* “ id. etc. ”) et enfin comme *parranda* “ au delà de, en dehors de, en outre ”. Le premier terme de ce dernier composé n’est pas attesté en hittite, mais il s’agit visiblement de la racine **per* “ au delà, outre etc. ”, W.-P. *29, lat. *per* etc.

9. *munna(e)-* “ cacher, couvrir ” se compare à gr. *μῦνασθαι* “ prétexter ”, *μῦνη* “ prétexte pour traîner en longueur ”. La même racine **mew* “ déplacer ” W.-P. *252 semble donner,

avec un autre suffixe, hitt. *muta-* “éviter”, mais le sens de ce terme est incertain.

10. L'étymologie par skr. *pṛṣat-* “goutte” de hitt. *pappars-* “asperger, verser” figure *Hitt. Gramm.* p. 106 : il s'agit de **pers* W.-P. *50 (ajouter tokh. AB *pārs* “asperger, arroser” Friedrich, *Hethitisch*, p. 41), qu'il faut, avec W.-P., analyser en **per-s*, car on retrouve la racine primitive **per* “faire jaillir” avec d'autres suffixes, sous les formes **per-k-* *pr-ek-* W.-P. *45, skr. *pṛṣni-* “tacheté, multicolore” etc., **per-w-/pr-ew-* W.-P. *28, et enfin **per-ə-/prē-* W.-P. *27. Cette dernière forme est à la base de gr. *πίμπρημι* etc. “allumer, enflammer, faire jaillir”, russ. *prěju* “suer, bouillir, s'enflammer”, v. sl. *para* “fumée, vapeur”, v. suéd. *fradha* “écume, fluide visqueux qui jaillit, bave”, v. isl. frœs “souffle, sifflement” et se retrouve dans un groupe de mots hittites : *papre-* “être sale, rendre sale”, *paprāhh-* “rendre sale”, *paprātar* “saleté” etc.

11. *parkan* “expiation” doit être rattaché à la racine **per* “vendre” W.-P. *40 et plus particulièrement, pour la forme, à v. irl. *reicc* “pour vendre”, lit. *perkù* “acheter”, tandis que le sens le rattache au groupe de mots signifiant “égal, comparer, égaliser” qui se tirent de la même racine en latin : *pār*, *paris* “égal”, *comparo* “comparer”, et particulièrement en avestique : *pərəθa-* “compensation d'une faute, expiation, punition”, *ā-pərəti-* “expiation”, *aipi-par-* “réparer une faute, faire pénitence”.

En face de *parkan*, le hittite a un autre terme qui désigne, comme l'explique Götze, *Kl. F.* 1, p. 190-2, la “réparation pure et simple d'une faute” : c'est le verbe *sarnenk-* et ses dérivés, avec le nom d'action *sarnenkzel*. M. Hrozný proposait dubitativement, *Code hitt.*, p. 16. 55, de voir ici un élargissement de **ser* “protéger”. Mais il est manifeste que l'on a affaire à une forme à infixé nasal de la racine qui se retrouve dans lat. *sarcio*, lequel signifie précisément “integrum facere, restituer dans son état primitif, réparer un objet ou une faute”. Or *sarcio* n'a de correspondant exact nulle part. Gr. *ἔρκος* “clôture”, *ὄρκάνη* “id., enceinte” peuvent appartenir à la

même racine et en fournir alors le sens matériel primitif, mais la coïncidence latino-hittite, avec limitation du sens moralo-juridique à ces deux seules langues, est frappante, comme l'est d'autre part celle de **per-(q-)* “comparer, égaliser” à ces mêmes langues plus l'avestique. — Cf. la même étymologie dans Pedersen, *Hittitisch*, p. 145, et déjà Juret, *Revue hitt. et asian.*, ii, p. 251.

12. *perunas* “rocher”, accessoirement *pirwa* “sorte de rocher” se rattache à la forme **bher-w-/bhr-ew-* W.-P. *195 (v. isl. *broma* “fragment” etc., lett. *brauna* “copeau etc.”) de **bher* W.-P. *159 “se servir d'un instrument aigu pour couper, percer, raboter, gratter, etc.”, skr. *bhṛṇāti* (gram.) “abîmer”, pers. *burrad* “couper”. Pour le sens, comparer surtout, de la même racine, gr. *φάραγξ* “ravin, précipice, falaise”, ion. *φάρσος* “morceau arraché, partie”, m. irl. *bairenn*, -*end* “quartier de roc”; c'est le même passage de “couper” à “roc” qu'on retrouve à la base de lat. *saxum*, de lat. *rupes*, d'all. *Schere* “écueils”, peut-être de gr. *λᾶς* “pierre”.

13. *săkuwa(e)-* “laisser reposer; faire reposer, arrêter”, *sakuweske-* “id.” etc. se tirent de la racine **sek* W.-P. *474 “abandonner, lent, calme, indolent”, gr. *ῆκα* “calmement, doucement, lentement” etc. — La suffixation *-uwa(e)-* se retrouve dans *kappuwa-* “compter; tenir compte de; prendre soin de”, à rattacher à la racine **ġab* posée hypothétiquement par W.-P. 530 “contempler, regarder vers” pour grouper v. isl. *kōpa* “regarder fixement”, ags. *cēpan* “considérer, regarder vers, prendre soin de, protéger” etc. avec russ. *zabota* “soin, souci”. Le sens “compter” du verbe hittite ne serait pas le plus primitif des trois et résulterait d'une évolution comparable à celle qui, à partir de **q^wek* “paraître, voir, montrer”, donne av. *ahaxšta-* “innombrable” et peut-être (*BSL* xli, p. 158) koutch. *keś*, agni *kaś* “nombre”. — Cf. enfin, pour la suffixation, *saruwa-* § 17.

14. (signe des mots étrangers +) *sap-* “nettoyer”, *sapiya-* et *sappeske-* “id.” peuvent provenir, par une spécialisation de sens, de **sep* “soigner quelque chose avec cœur”, skr.

sapati “caresser, toucher, soigner”, gr. *ἔπω* “s’occuper de, soigner, apprêter”, W.-P. *487.

15. *sardiyas* “aide, sauveur” rappelle par sa première syllabe la racine **ser* W.-P. *498 de lat. *servus* “esclave *gardien”, *servo* “sauver, conserver, préserver”, av. *haraiti* “garder, protéger”, *pasuš-haurva-* “qui garde le troupeau” etc. L’avestique, ainsi que l’ombrien *seritu* conservent seuls la racine primitive. Une suffixation *-u-* figure en latin et en avestique, une gutturale en baltique, lit. *sérpmi* etc. “protéger, garder” etc. Le hittite ne fait donc qu’ajouter à cette variété sa forme à élargissement *-d-*.

16. *sariya-* “tisser” se rattache aisément à **ser* W.-P. *499 “sériér, nouer” de gr. *ἔρω* “nouer, attacher, entrelacer”, lat. *sero* “tresser, entrelacer; lier ensemble, enchaîner, engager” etc. — Un élargissement en *-k-* de la même racine semble figurer dans le verbe de sens incertain *sarku-* “mettre (des chaussures, des jambières)”; ou bien, ce qui peut-être revient au même, la racine est celle de gr. *ἔρκος* etc., cf. § 11.

17. *sāru* “butin”, *sārwā(e)-* “piller” sont proches de lett. *sirt* “vagabonder, faire des razzias”, *sira, sira* “vagabondage” et plus spécialement, par la forme, de gall. *herw* “brigandage”, m. irl. *serb* “vol, crime” W.-P. *498.

18. *sēli-*, si son sens est bien “pâturage” et non, comme le veut Ose, *Supinum* . . . (MVAG 47, 1, 1944), “grenier,” se rattacherait, avec une finale différente, à **selos-* “marais, lac” W.-P. *507 attesté par skr. *sāras-* “bassin, étang, lac”, v. p. *hara(h)vatī*, av. *harax^haitī* = skr. *sarasvatī*, littér. “riche en lacs”, gr. *ἔλος* “bas-fond, lieu humide et marécageux” et confirmerait le rapprochement des termes grec et indo-iranien entre eux.

19. *sesariske-* “filtrer” et *sesarul* “filtre” se rattachent à **ser* “couler” W. P. *497 qui donne notamment gr. *ὀρός*, lat *serum* lesquels désignent en premier lieu le “petit lait”, autrement dit “ce qui s’écoule quand on filtre le lait caillé”. Au point de vue de la forme, il est intéressant de constater dans le verbe la présence simultanée du redoublement et de

-*ski-*, qui ont une certaine affinité l'un pour l'autre comme le note *Hitt. Gram.* § 289.

20. *siyattal* "flèche, projectile" est comparable à skr. *sāyaka-* n. "projectile, flèche", de la racine **sēi* "envoyer, lancer, laisser tomber" W.-P. *459. Le sens de *siyattaliya-* "semer" est douteux, mais s'il se confirme, on notera la coïncidence sémantique avec tout le group de lat. *sero*, got. *saian*, lit. *sėjū*, v. sl. *sějō*, gall. *hadu* "semer".

21. *sullā(e)-* "être en colère, se quereller (avec), punir", *sulliya-* "id.", *sullatar* "colère, querelle" peuvent se rattacher à **sel* "sauter" de gr. *ἄλλομαι* "sauter, bondir", lat. *salio* "id." etc., en supposant qu'ait réagi sur le simple la signification d'un composé tel que lat. *adsilio*, *insilio*: on comparerait ce qui s'est passé pour tokh. A et B *yuk* "vaincre" qui a le sens d'un composé comme lat. *subiungo* (Schneider, *IF* lviii p. 41 et indépendamment Duchesne-Guillemin, *BSL* xli).

22. *dar-* "dire" (supplétif de *tē-* comme l'expliquent Sommer-F¹kenstein, *Die Heth.-akkad. Bilingue*, *ABAW* 1938, p. 132, n. 5) et *dāriya-* "invoquer, mander, réclamer" se rapportent, plutôt qu'à *(*der*) "gronder, bavarder" W.-P. 795 qui est toujours redoublé, à **dher* "id.", W.-P. 860, ags. *dora* "bourdon", etc.; la même racine est à la base de tokh. *trānk-* "dire" etc., cf. en dernier lieu *BSL* xli, p. 144. Couvreur ne décide pas entre les racines **dher*, **der* et **toro*.

23. *tattarānzi* "ils essuient" (ou un sens analogue) se tire sans peine de **ter* "frotter" W.-P. 728, qui donne gr. *τείρω* "frotter etc.", lat. *tero* "id." etc.

24. Le sens "nez" de *tītitan* est, selon Friedrich, *IF* xli, p. 374, n. 1, quasi-sûr; peut-être, ajoute ce savant, le pluriel *te-(e)-ta-nu-uš* veut-il dire "yeux". — On peut donc partir de la racine **dhī* "voir, regarder" W.-P. 831, skr. *ādīdhet* "il regarda", av. *dā(y)-* "regarder" et particulièrement av. *daēman-* "œil, prunelle, regard" et *dōiθra-* "œil" et expliquer le sens de "nez" par la même transposition de sensation qui est à la base d'av. *vaēnā* "nez", pers. *bīn* en face d'av. *vaēna-* "voir", pers. *bīnad*.

25. *dud(d)um(m)ianza* (et *duddudmianza*) "sourd", *duddummes-* "devenir sourd" et *duddumeli* "sourdeusement, silencieusement, secrètement" rappellent la forme **dud*, redoublée de **dheu* W.-P. 835 "fumer etc." et qui est attestée en germanique, notamment dans isl. *dođna* "perdre connaissance", b. a. *dudendop, -kop* "personne de nature endormi", v. fris. *dud* "Betübung", m. h. a. *vertutzen, vertützen* "être étourdi, perdre le contrôle de soi, s'attrister", W.-P. p. 839.

26. *duddu-*, *dudduske-* "surveiller, administrer, diriger", *duddunu-* "mettre en observation, emprisonner" se comparent à gr. *θαύμα* "objet d'étonnement; admiration", *θεία* "contemplation, aspect; spectacle", par ailleurs sans correspondant.

27. *tuliya-* "assemblée, conseil" (à côté de *panku-* "assemblée des nobles" et d'*asessar* "assemblée, population") se tire de la même racine (**tēu* "gonfler" W.-P. 706) que *tuzzi-* "armée" rapproché par Sturtevant, *Hitt. Gramm.* p. 155, d'osq. *touto*, v. irl. *tuath*, got. *þiuda*, lett. *tauta* "peuple". Par son suffixe, *tuliya-* appartient au groupe où figurent notamment v. pr. *tūlan* "beaucoup", lit. *tūlas* "nombreux": pour le rapport de sens, comparer hitt. *panku-* "nombreux", d'où "assemblée".

28. En rapport avec *tūrriya-*, *tūreske-* "harnacher", Hrozný, *Spr. der Hethiter*, p. 87, n. 1, suivi par Pedersen, *Muršiliš Sprachlähmung*, s.v., cite seulement lit. *tvėrti* "contenir, clôturer" (et v. isl. *þrūðr* "force", à écarter selon W.-P. p. 751). Le rapport est plus étroit et plus manifeste avec gr. *σειρά* "corde, lacet, lasso", *σειραῖος, σειρᾰφόρος, παράσειρος* (*ἵππος*) "funalis equus".

29. *ūrki-* "trace", *ūrkiya-* "suivre à la trace, traquer, trouver" (à lire avec *ū*) se rapportent à **wer-g-/wr-eg-* "pousser, presser, poursuivre hostilement" W.-P. 319 qui donne skr. *vrājati* "marcher, aller", et particulièrement lat. *urgeo* "serrer de près, presser, poursuivre" et got. *wrikan* "poursuivre".

30. *wappiya-* "aboyer" se rapporte à la racine **wab*

“ appeler, crier, se lamenter ” W.-P. 217 attestée en v. sl. *vabljo* “ appeler par des cris, attirer ”, got. *wōpjan* “ crier, appeler ”, v. h. a. *wuoffen*, *wuofan* “ se lamenter, gémir ” etc.

31. *watk-* “ sauter ”, *watku-* “ sauter, fuir ; se coucher (étoile) ”, *watkunu-* “ faire fuir, chasser ” se rapportent à **wadh* W.-P. 217 “ aller, marcher ” qui fournit lat. *vādo* “ id. ”, v. norr. *vada* “ aller, avancer, aller à gué ”. Le sens de “ sauter ” (d’où dérive secondairement celui de “ fuir ”, cf. all. *entspringen*) est à celui d’ “ aller ” comme angl. *to leap* est à néerl. *loopen*.

— L’élargissement *-k-* ajouté à une racine en *-t* se retrouve dans *putkiya-* “ fermenter (?) ”, qui se rapporterait à **put* W.-P. *80, d’où sont tirés skr. *puppūṭa-* “ tumeur au palais ou aux gencives ”, lit. *pucziū* “ souffler ”, *puntū* “ se gonfler ” etc. Ce trait morphologique se retrouve en tokharien, où il est assez productif (pour l’agni, voir *Tochar. Gramm.* § 1 ; pour le koutchéen, consulter l’index des verbes, *ibid.* p. 421 sq. ou le vocabulaire des *Fragments de textes koutchéens* de Sylvain Lévi).

32. *hassu-* “ roi ” est rapproché par Pedersen, *Mursīliš*, p. 57, de *has-* “ enfanter ” et mis en parallèle avec v. h. a. *kuning* “ roi ” < **gen-* “ engendrer, enfanter ” (comme “ celui qui est de race noble par excellence ”). Mais on peut aussi rapprocher av. *ahū-* “ maître, chef d’une maison, d’une communauté ”, *ahura-* “ maître, souverain, prince ”. L’étymologie de ces termes avestiques par skr. *sūrī-*, *savitṛ-* (Bartholomae-Wackernagel) a l’inconvénient de postuler *ā-* alors que *a-* est seul attesté, et de séparer skr. *ásura-* “ souverain ”. On lui préférera donc celle que défend en dernier lieu Güntert, *Der Arische Weltkönig und Heiland*, p. 102, qui groupe av. *ahura-*, *ahū-* “ maître ”, *ahū-* “ force vitale ”, skr. *ásura-* “ souverain ”, *ásu-* “ souffle vital ”, got.-lat. *anses* (germ. **answz*), v. norr. *oss*, ags. *ōs* “ ase ”. Le prototype est **a₂en-su-* qui doit donner régulièrement en hittite, vu le parallèle **d₂nsu-* > hitt. *dassu-* “ fort ” (Sturtevant, *RHA* 1, p. 86), la forme qui est en effet attestée : *hassu-*.

33. Sturtevant, *Language* 4, p. 5 sq., rapproche *istarkk-* "être malade", *istarnenk-* "endommager, rendre malade" de gr. *στραγγάλη* "lacet, cordon; action d'étrangler; anxiété" et de lat. *stringo* "serrer, étreindre, presser", v. h. a. *strīhhan* "streichen". On pourrait aussi songer à gr. *στρέυομαι* "s'exténuer, se consumer, dépérir". Mais, seul de tous ces rapprochements, le premier convient pour la forme, car les autres ont *-i-* ou *-u-*, que n'ont pas les formes hittites. Dans ces conditions, on est amené à envisager plutôt un rapport avec **ster* W.-P. *641 "liquide malpropre, fumier, souiller; se putréfier" sous sa forme *(s)*ter-k-*, nasalisée en (s)*trenk*, qui donne lat. *stercus* "excréments", gall. *trwnc* "urine, levure" etc. Pour le sens, comparer lat. *tābēs* "liquéfaction, désagrégation par suite de maladie" en face de *tābum* "écoulement putride", arm. *frīk* "fumier", v. h. a. *theisk* "stercus" etc., et lat. *morbis* "maladie", gr. *μαρασμός* "consomption" en face d'all. *morsch* etc.

34. *kaniniya-* "s'incliner, se prosterner, faire obédience", auquel s'est ajouté dans la suite *kanina-* (avec *katta*) "id.", est rapproché par Hrozný, *Spr. der Heth.*, p. 78 n. 10, d'acc. *kanānu* "to duck". Mais le mot peut aussi être hérité: il serait avec hitt. *genu* (instr. *ganut*, etc.) dans le même rapport sémantique que, selon une hypothèse formulée par Pedersen, *Hittitisch*, p. 177, *hāliya-* "s'agenouiller, s'incliner" avec lit. *kēlias* "genou". L'*i* de la deuxième syllabe de *kanina-* et *kaniniya-* fait à vrai dire difficulté, ce qui milite en faveur de l'emprunt.

35. *maninkuwahh-* "rendre court; approcher", **maninkwanza* "court, proche", *maninkwēss-* "devenir court" sont rapprochés par Sturtevant, *Language* 6, p. 217 sq., de skr. *manāk* "petit" et de skr. *mañku-* "faible, chancelant". Mais tous ces mots ne se superposent que par leur partie radicale *man-*. Celle-ci est la racine **men* W.-P. *266 "petit", d'ailleurs toujours affectée de suffixes à *-w-* ou à *-q-*. Götze, *Hattušiliš*, p. 57 sq., annonce une étude sur la finale *-uwanza*; mais elle ne rendra compte que de *maninkwanza*, à l'exclusion de *maninkuwahh-* et *maninkwēss-*. A la base des trois formes

hittites on doit, semble-t-il, poser un *maninkw(a)-*, dans lequel je propose de retrouver un **m_eni-* (avec *i* alternant morphologiquement avec *-u-* de gr. *μάνυ· μίκρον*, arm. *manr* etc.) et le suffixe **-nq^w(o)-* de lat. *propinquus* (identique pour le sens à notre terme hittite), *longinquus*, gr. *ἀλλοδαπός*, *ποδαπός*, skr. *pratyāñc-* etc.

36. *pittūlas* “nœud, boucle” ou sens analogue, *pittuliya-* “attacher ensemble, lacer” ou sens analogue et *pittuliyas* “nœud; anxiété (?)” évoquent soit v. h. a. *fezzil* “lien pour attacher le glaive, lien, entrave”, ags. *fetel* “baudrier, ceinture” etc. (W.-P. *22), soit moins probablement certains dérivés de **ped* “pied” (W.-P. *23): gr. *πέδη* “entrave”, lat. *pedica* “id.; piège”, av. *bi-bda-* “double entrave”. Le suffixe ressemble à celui de *passilas* “caillou”.

37. *sān(n)ā-* “celer, cacher” est analysé par Sturtevant, *Hitt. Gramm.* p. 214, en *sa + nai-* “conduire”, ce qui satisfait mal pour le sens. Mieux vaut reconnaître ici la racine **sen* W.-P. *494 “pour soi, à l'écart” qui transparait sous les formes à suffixe en *-i-*, *-u-*, *-er-*, *-ter-*: lat. *sine* “sans”, irl. *sain* “différent”, mégar. *avis* “sans”, skr. *sanutār* “à l'écart de, loin de”, gr. *ἀνευ* “sans”, av. *hanarə* “loin de, sans”, gr. *ἄτερ* “à l'écart de, sans”, v. sax. *sundir* “sans”, gall. *hanner* “moitié” (W.-P. *loc. cit.* et Ernout-Meillet s. v.). De la racine **sen* postulée par toutes ces formes on passait d'autant plus aisément à hitt. *sanna-* que le verbe synonyme hitt. *munna-* “cacher” (cf. § 9) pouvait servir de modèle.

38. *twēkka-s* “corps, propre personne, soi” peut se tirer soit de **dheu-gh-* (sous une forme II *dhw-egh-*) W.-P. 847 qui fournit notamment gr. *τεύχω* “fabriquer, faire, préparer, construire, façonner, créer, produire, faire naître” etc., en supposant la même évolution “objet façonné” > “corps” que celle qui est à la base de gr. *δέμας* (tiré de **dem* “bâtir”, de skr. *deha-*, lat. *figura* (tirés de **dheigh-* “façonner avec de l'argile etc.”): skr. *dēhmi* “enduire, cimenter”, lat. *fungo* “façonner”) etc. — Une autre hypothèse, le rapprochement avec **tēu* “gonfler” qui fournit notamment gr. *σῶμα* “corps”,

ne rendrait pas compte de la finale à gutturale du terme hittite.

39. *uwai* (régime de *tiya-*, *udā-*, *pedā-*) “invidiam, injuriam”, d’où les verbes *uwa(e)-* “être objet de pitié” et *uwainu-* “rendre objet de pitié”, sont rapprochés par Sturtevant, *Chrestom.*, p. 89, de *uwā(i)-* “apparaître, être vu” (cf. lat. *invidia* < *vidēre*). Le même savant cite en parallèle à l’évolution sémantique de “faire tort” à “faire pitié” all. *er tut mir leid*. C’est la partie la plus sûre de son commentaire ; quant au rapprochement avec *uwa-* “apparaître, être vu”, il paraît cherché, et déjà Sommer, ap. Sturtevant, *Chrestom.* p. 171, semble le rejeter au moins implicitement en séparant *uwaitari* “il fasse pitié” de *uwa-* “apparaître, être vu”. Je proposerais de retrouver en *uwai* l’interjection de douleur et de haine **wai* W.-P. 212 : cela satisfait à la fois la sémantique, en rendant compte et du sens de “tort” et de celui de “pitié”, et la morphologie en ajoutant simplement le hittite, avec *uwa(e)*, *uwainu-*, aux langues qui ont accueilli **wai* dans le système de leur dérivation, à savoir l’arménien, *vay* “cri de douleur ; malheur, calamité”, le germanique, v. h. a. *weinōn* “pleurer”, v. isl. *veina*, ags. *wānian* “gémir”, d’où probablement got. *wainags* “misérable, malheureux”, v. h. a. *wēnag* “id.”, le balte lett. *vaijāt* transitif “faire mal (à quelqu’un)”, et peut-être enfin le celtique, m. ir. *fāed* “cri, son”, gall. *gwaedd* “clamor, eiulatus”.

40. *wakkār-* “manquer” était analysé par Sturtevant, *Hitt. gramm.*, p. 117, en **wo* + **ker* (W.-P. 410 “détruire etc.”) ; c’est déjà peu satisfaisant pour le sens, mais deux nouveaux verbes, *waksiya-* “manquer” (?) et *waggasnu-* “omettre ou élever (to rear)” (??) obligeront, si leur sens se confirme, à considérer *-ar* de *wakkar-* comme suffixal et amèneront à retrouver ici la racine de lat. *vaco* “être vide, être vide de ; être vacant, libre etc.”, *vacuus* “vide, vide de, libre de, vacant” etc., qui jusqu’à présent ne se retrouvait (Ernout-Meillet, *s.v.* et W.-P. p. 108) qu’en ombrien. — Accessoirement, dans cette hypothèse, le sens “élever” de *waggasnu-* se comparerait à celui de “vaquer à” de *vacare*.

II

ÉTYMOLOGIES IMPLIQUANT CERTAINS TRAITEMENTS
PHONÉTIQUES INTÉRESSANTSA. $*n - m > l - m$

41. On sait depuis Hrozný, *Bo. St.* 5, 27, n. 5, que lat. *nōmen* etc. ont pour correspondant hittite *lāman* “nom, réputation”. La même dissimilation donne (Grammont, *Traité de Phonétique*, p. 308 sq.) fr. de l’Est et de l’Ouest *lomé* “nommer” (aussi wall. liég. *loumer* “id.”), padouan *lôme* “nom”; le même phénomène s’observe dans d’autres langues indo-européennes, en grec, indo-aryen, celtique et balto-slave, et en dehors de cette famille, en sémitique, en étrusque et — peut-on ajouter d’après Poebel, *Sumerische Grammatik*, p. 26 — en sumérien : *kalam* “pays” en face de plus ancien *kanam(a)* “id.”

Le hittite semble en fournir un autre exemple dans *lammar*, gén. *lamnas* nom d’une certaine portion de temps, “moment” (Hrozný) ou “heure” (Friedrich). On partirait de la racine $*nem$ W.-P. *330 “attribuer, prendre”, d’où “calculer, compter”, gr. *νέμω* “distribuer, partager etc.”, *νομός* “district; pacage” et *νόμος* “usage, coutume, loi”, tous deux originairement “ce qui est assigné à chacun, son lot, sa part”, et peut-être lat. *numerus* “nombre”. L’idée de “portion” appliquée au temps aboutit immédiatement au sens attesté en hittite.

B. $*a_2$ en fonction vocalique $> a$

42. Le sens des mots *arkuwa-*, *arkuwěske-* “plaider, prier”, cf. Couvreur, *Heth. h.*, p. 151, *arkuw(w)ar*, *arkuwessar* “plaidoyer, prière” invite à les rapprocher de lat. *arguo* “indiquer, démontrer, convaincre”. Il y a une difficulté de forme. Le verbe latin, en effet, remonte à un $*argu-$ “éclat, blancheur” (Ernout-Meillet, *s.v.*); or, la racine de ce mot est $*a_2erg-$ et donne notoirement en hittite des mots à initiale *h-* : *harkis* “blanc”, *harkēs-* “devenir blanc”, répondant à gr. *ἀργυ-*, *ἀργής* “blanc, brillant”. La présence où l’absence de *h-* en hittite s’expliquera par la fonction consonantique ou

vocalique de $*a_2$, soit $*a_2rgi-$ (ou a_2ergi- ou a_2orgi-) en face d' $*a_2rgu-$. Le degré radical zéro postulé en $*a_2rgu-$ est le degré attendu dans les adjectifs en $-u-$, comme l'enseigne Brugmann, *Grundriss* ² ii, 1, p. 176. Le traitement a de $*a_2$ est impliqué, comme l'a vu Pedersen, *Hittitisch*, p. 183, dans hitt. *sagais* "présage" (en face de lat. *sāgio* "acute sentire", got. *sokja* "chercher, discuter", gr. ἡγέομαι "aller en tête, penser" etc.¹), pour la position entre consonnes. — Voir maintenant H. Hendriksen, *Untersuchungen*, p. 45 et 74.

C. h provenant de gutturale devant a issu de $*e$

Pedersen, *Hittitisch*, p. 176 sq., a posé que certains h hittites devant a sont issus de $*kya$ provenant de $*ke$, ge , ghe devant r , l + consonne. Il s'appuie sur hitt. *harsani* (loc.) "tête" rapproché de skr. *śīrśān-* "id.", sur hitt. *hars-* "bêcher, biner, houer" comparé à skr. *karṣati* "labourer", sur hitt. *halkis* "céréale" identique à phryg. ζέλκια· λάχαρα cf. v. sl. *zлакŭ* "herbe", enfin peut-être sur hitt. *haliya* < $*halya$ (?) "s'agenouiller" comparé à lit. *kēlias* "genou".

Cette liste peut s'allonger de quelques nouveaux cas :

43. *harwāsi-* adj. "secret" (dans *harwāsi pēdan* "endroit secret") se tire de $*qrā$ "entasser, couvrir, cacher" W.-P. 477, qui donne v. sl. *krovŭ* "toit", gr. κρύπτω "cacher" et surtout, pour le sens, v. sl. *zakrovŭ* "ἀποκρυφή, cachette", *sŭkrovŭ* "κρυπτή, absconditum", serbo-cr. *krovom* "secret", gr. κρυφῆ etc. "secrètement", κρυφαῖος etc. "secret". La racine, posée par W.-P. sous la forme $qrā_xu$, $qrū$, s'analyse en $*qer-(ə)w-/qr-e(ə)w-$. Le degré I est représenté en hittite et fait voir que la racine est identique à $*(s)qer-(w-)$ attesté avec le sens plus général de "tourner, courber", W.-P. *568, dans lat. *curvus* etc. L'archétype $*qerw-$ est dans les conditions d'application de la loi de Pedersen et donne en conséquence $*kyarw- > harw-$. Il n'est pas jusqu'au suffixe additionnel en $-s-$ de *harwāsi* qui ne semble avoir son correspondant en celui de v. isl. *hröysar* "tas de pierres, tas" etc., russ. *kryša* "toit" et surtout serbo-cr. et bulg. *s-krišoma* etc.

¹ Etymologie contestée par Couvreur, *Heth.* h, p. 205.

“ en cachette, secrètement ”, *krîšom* “ secrètement ”, tch. *s-krîše* “ cachette, retraite ”.

44. *halanta* “ tête ” a été rapproché par Hrozný, *Spr. d. Heth.*, p. 43, n. 2, de lat. *calva* “ crâne ”, mais cette explication ne peut prétendre à rendre compte que de la première syllabe *hal-*. A la finale *-anta* s’oppose l’accord de l’italique et de l’indo-iranien, skr. *ati-kulva-* “ tout chauve ” etc., W.-P. 447. Au contraire, en partant de la racine **qel* W.-P. 433 “ s’élever, dominer ”, qui donne notamment skr. *kūta-* “ tête, crâne, etc. ”, v. sl. *čelo* “ front ” russ. *čeló* “ front, tête, pointe ”, peut-être aussi m. ir. *coll* “ tête ”, on retrouve un suffixe à *n* dans lat. *collis* “ colline ” (peut-être aussi *collum*, *collus* “ cou ”), lit. *kálnas* “ colline ”, v. angl. *hyll* “ id. ” (**kolən-*, Ernout-Meillet, s.v. *collis*). On supposera qu’en hittite le même suffixe s’est élargi d’une dentale, comme gr. *ὀνόματος*, cf. en dernier lieu Benveniste, *Origines*, i, p. 29 sq. Dès lors l’archétype est **kelən-to-*, qui est dans les conditions définies par Pedersen et donne par conséquent **kyalənta* et enfin (avec traitement régulier de *ṅ* en *an* et amuïssement de **ə* devant voyelle) *halanta*. — Cette étymologie est maintenant dans Pedersen, *Lykisch u. Hittitisch*, p. 28.

45. *harrā-* “ briser, pulvériser, ruiner ; rendre nuisible ” semble se rapporter à **ker*, **ker-ā*, W.-P. 410 “ endommager ; se détruire, se gâter ”, encore que le double *r* y soit ambigu. Si on lui donne une valeur non purement graphique, *harr-* s’explique phonétiquement à partir d’un **kerr* qui tombait sous le coup de la loi de Pedersen. Encore faudrait-il expliquer morphologiquement ce double *r*.

D. *z-* de provenances diverses

46. On sait par Sturtevant, suivi par Pedersen, *Hittitisch*, p. 175, que hitt. *z* ne provient pas de **dī*, *dhi*, lesquels fournissent clairement *ti*. Mais, selon Pedersen, **dy-* semble être devenu *s-*, comme l’attesteraient *siya-* “ apparaître ”, *siunas* “ dieu ” et *šiwaz* “ jour ”.

Un traitement *z-* de **d-* semble, dans trois cas, être soumis à des conditions quelque peu semblables à celles qui produisent

**k* > *h*. En effet, il est difficile d'écarter *zalukes-* et *zaluganu-*, si toutefois leur sens respectif de "retarder, faire traîner; retenir, faire retarder" se confirme, de *dalugi-* "long", *talukes* "s'allonger", *dalugnu-* "allonger", *dalugasti* "longueur". Ceux-ci sont notoirement apparentés à gr. *δολιχός* "long", etc., W.-P. 812. — En second lieu, *zilatiya*, *ziladuwa* "à l'avenir, dorénavant" peut être comparé à **dil* "viser à", attesté en germanique, W.-P. 809, notamment dans v. norr. *til* "jusqu'à", v. h. a. *zil* "but". Accessoirement on rapprochera peut-être hitt. *zilan*, *zilayan* employé à propos du vol des oiseaux et dont la traduction "de ce côté, par ici" n'est que conjecturale. — En troisième lieu, il est difficile de séparer *ziliipuriyatallas* (bilingue hitt.-proto-hitt., Friedr., *Kleinas. Sprachdenkm.*) de *telipuri*.

47. Dans d'autres conditions, *z-* semble parfois représenter un ancien *s-*. En effet, on ne peut guère se dispenser de rattacher, avec Götze, *Murš. Sprachlähmung*, p. 35 et n. 1, *zakkar* "excrément" à *sakkar* "fumier", lequel est comme on sait (Benveniste, *Origines*, i, p. 9) apparenté à gr. *σκῶρ* "excrément" etc., W.-P. *587. Sturtevant, *Language*, 12, p. 181 sq., explique la variante en *z-* par le fait qu'elle ne serait pas hittite.¹ — Un cas parallèle se trouverait en *zakkis* "verrou" si ce sens se confirmait, car on rapprocherait lett. *sagts* "agrafe" etc., en partant de **seg* "attacher" W.-P. *480. — Enfin, il est tentant de rapprocher *zappiya-* "tomber en gouttes" de lat. *sapa* "sève" etc., W.-P. *451.

III

CAS DOUTEUX

48. *ār-* "enlever, dépecer, détacher" semble représenter, avec élargissement *k*, la racine **er* W.-P. "(se) séparer" qui donne, sans élargissement, skr. *ṛte* "sans, séparément"; avec **-e-*, lat. *rarus* "clairsemé, rare etc.", lit. *irti* "se dissoudre, se séparer", v. sl. *oriti* "dissoudre, détruire"; enfin avec **dh*, lit. *ardyti* "séparer, cliver" etc. — Le même *-k-* propre au hittite figure dans *istalk-*, *istalga-*, *istalkiya-*, si leur sens

¹ Cf. aussi W. Couvreur, *Heth. h*, p. 195, n. 4.

d' "aplanir, rendre uni" se confirme, auquel cas on les tirerait de **stel-*, *stel-ə* "étaier, étendre à plat", W.-P. *643, qui donne lat. *lātus* "large", arm. *lain* "id.", *a a-stat* "toit" (Walde-Hofmann ³ s.v. *lātus*) et surtout v. sl. *steljō* "étaier" etc.

49. A la base d'arm. *airem* "brûler", av. *ātar-* "feu", W.-P. pose, p. 42, une "racine" *āt*. Cela suppose une racine **₂et-*, qui doit donner hitt. *hat-*. Précisément un verbe *hāt-* est attesté, avec le sens de "se dessécher (en parlant d'eaux, de plantes)". Ce verbe serait spécialement voisin, par son sens, d'arm. *at'ar* "bouse séchée" (non cité par W.-P.).

50. *huntariya-*, si son sens de "lâcher un vent" se confirme, se rattacherait à *huwandas* (gen. sing.) "vent". La formation rappellerait celle de *sakuwantariya-* "se reposer", *sakuntarriyanu-* "faire reposer, négliger".

51. *kariya-* "couvrir, fermer; mettre au repos (une armée)", *kariyanu-* "id.; cesser de jouer (d'un instrument de musique)" peuvent se tirer, vu leur sens premier, de *(s)*qer* W.-P. *568 "tourner, courber" qui donne notamment v. sl. *krinica* "récipient, cruche", lat. *scrīnium* "écriin"; mais ce dernier terme, qui serait le plus voisin et le plus probant, n'est pas étymologiquement sûr.

52. *karmalassai* est de sens incertain: Hrozný, *Code Hitt.*, p. 82, l. 28, propose "(il) reste estropié", Walther, *Hitt. code*, p. 249, l. 10: "(il) fait mal, cause de la souffrance." Mais l'un et l'autre sens autorisent le rapprochement avec **kormo-* "douleur, torture, offense" W.-P. 463, v. isl. *harmr* "affliction, chagrin, offense", ags. *hearm* "chagrin, douleur, dommage" etc., v. sl. *sramŭ* "honte", av. *fšarəma-* "id."

53. *kueras* "pays, territoire, champ, plaine" se tire de **g^wer-(ə)-* "montagne" qui donne skr. *giri-* "id.", v. sl. *gora* "id." Il serait, avec l'ensemble de ces mots, dans le même contraste de sens qu'hébr. *gəbōl* "territoire" avec ar. *ǰabal^{un}* "montagne".

54. *kunnas* "dexter, favorable, bon", son abstrait *kunnatar* et les verbes *kunnahh-*, *kunnahiske-* "réussir, faire réussir" ont la racine et à peu près le sens d'av. *spənta-* "saint",

lit. *šveñtas*, v. sl. *svetŭ* "id.", originellement "qui fait prospérer, qui fait réussir" (cf. en dernier lieu *Mél. Boisacq*, p. 333 sq.).

55. *pasga-* "dresser" est peut-être en rapport avec **pes* W.-P. *68 "membre viril". Dans ce cas, élargissement guttural ajouté à une racine en -s, comme cela se passe en tokharien (références comme ci-dessus à propos de l'addition à racines en -t, § 31), et peut-être dans hitt. *dusk-*, ci-dessous § 61.

56. *samna(e)-, samnaiske-, samniya-* "faire grandir, créer" ou sens analogue, se tirent de **sem* "puiser", W.-P. *487, qui donne lit. *sémti* "id.", v. irl. *doesmet* "ils verseront" et surtout *tuistiŭ* "engendrement, création". On comparera le rapport sémantique all. *schöpfen* : *schöpfer, schöpfung*.

57. *sarāman-*, si son sens de "réceptacle, refuge" se confirme, se rattachera à la racine **ser* représentée par ailleurs dans *sardiya*, § 15.

58. *seshā-* "assigner, ordonner, diriger", à la même condition, pourrait être mis en rapport avec *ishāi-* "lier, fixer etc."

59. *tapus* "près de, à côté de, etc." pourrait se rattacher, en supposant la même évolution de sens que dans le français près < lat. *pressus* ou dans l'allemand *dicht bei*, à la racine **tap* "presser" W.-P. 705, de skr. *samtapati* "comprimer", gr. *ταπεινός* "bas, humble, etc. < *pressé".

60. *tuhhs-* "enlever, séparer" a été rapproché par Sturtevant successivement de gr. *δέομαι* "manquer" (*Langu.* 4. p. 161) et de **deuk* "tirer" W.-P. 780 (*Langu.* 6. p. 30) qui donne notamment lat. *dux* comparable à hitt. *tuhkantis* "commandant en chef". De toute façon, il est possible que *tuhhs-* "se purifier, se consacrer" ne fasse qu'un avec *tuhhs-* "enlever", qui serait spécialisé au sens d' "enlever l'impureté". Cependant, une autre possibilité existe, c'est que *tuhhs-* désigne, du moins à l'origine, un mode particulier de purification, celle qui s'opère par l'encens. Götze propose en effet (*Neue Bruchst.* p. 69, n. 2), de traduire *tuhhwessar*, l'instrument à l'aide duquel se fait l'action de *tuhhs*, par "encensoir" (mais Kretschmer, *Kl. Forsch.* 1, p. 299, propose

“époussetoir”) et *tuhhwis* par “vapeur, fumée”. Dans cette hypothèse, l'étymologie de ces mots doit être cherchée ailleurs que du côté de *tuhhs-* “enlever”, et alors on ne peut qu'être frappé de leur ressemblance, complète au point de vue du sens, avec lat. *februus* “qui purifie, purificateur”. Mais, au point de vue de la forme, la coïncidence est loin d'être parfaite : le terme latin peut reposer, selon l'explication reproduite W.-P. 844, sur un **dhwes-ro-* “qui encense”; par contre, hitt. *tuhhwessar* semble supposer **dhuæwesr-*, c'est-à-dire que *hh* y fait difficulté, à moins qu'on y voie un simple “signe d'hiatus” destiné à marquer le dissyllabisme *tu-wes* (explication qui s'inspirerait d'une communication orale de M. Bonfante, Liège 1939, sur la valeur de hitt. *h* en général). Il resterait à rendre compte du détail de *tuhhs-* et de *tuhhwis*. Au total, une certaine indécision subsiste, d'autant qu'une tout autre étymologie de lat. *februus* que celle qui est utilisée ci-dessus vient d'être appuyée de nouveaux arguments par M. Dumézil dans son *Mitra-Varuna*, Paris 1940.

61. *dusk-* “jouer, s'amuser” et ses dérivés pourraient, en supposant un sens originel “être excité”, cf. angl. *exciting*, *be excited*, être rapportés à v. isl. *þausk*, aussi *þausn* “bruit, tumulte”, *þūstr* “colère, hostilité” (W.-P. p. 707). — L'addition de *-k* rappelle les formations indiquées § 31 et 55.

62. *ukturis* “ferme, stable, solide” rappelle par son début la racine **weg* “être vif, vigoureux” W.-P. 246, qui donne notamment lat. *vigeo* “être bien vivant, vigoureux”, skr. *vāja-* “force, rapidité, combat”. — La même racine peut se trouver à la base de *wakkariya-* “se révolter”, à comparer plus spécialement, pour le sens, à lat. *vegeo* “pousser fortement, animer, exciter” et aussi à skr. *vāja-* au sens de “combat”, et pour la forme à skr. *vājra-* “foudre de guerre”, av. *vazra-* “id.”, v. norr. *vakr* “vif, alerte, éveillé”, all. *wacker* etc.

63. *walli*, conjecturalement traduit par Hrozný “dépilées (en parlant de peaux)” rappellerait lat. *vello* “dépiler, plumer” et apparentés, W.-P. 305.

Liège, août 1941-avril 1946.

THE ENGLISH SCHOOL OF PHONETICS

By J. R. FIRTH

“Take stock of what you have, in the first place, and consider your heritage. You will find, I think—let me put it modestly—some occasion for happiness, a little foundation of confidence, in your nationality. It is not our custom, in Britain, to boast much of our achievements, for though we have played our part in the world’s history with a certain spirit, we are ill-educated and have bad memories. We are taught only the smallest fraction of what we have done, and even that we cannot remember.”

From “Our Words and Books and Ways”, by Eric Linklater—in the *Observer* of Sunday, 27th October, 1946, being part of his Rectorial Address, called “The Art of Adventure”, delivered the day before at Aberdeen University.

IN 1935¹ I read a paper before the Society on semasiology as understood in England, and of semantics as it was afterwards called, as a result of later French influence, and I drew attention to the prior importance of the Society’s Dictionary. Lexicography is a branch of linguistics in which the English are very much at home. To-day I turn to phonetics in this country, and as in the early days of the Society, we are going to look into the background of typically English work in orthoepy, orthography, “alphabetics,” and phonetics. Though we in this country are beginning to use the term “phonology” for a certain branch of linguistics following continental usage, we do so at some disadvantage to ourselves, since in English “phonology” is an historical not a synchronic discipline. As usual we conform to international usage, since we cannot impose the meaning of “phonetics” on those who use the terms *la phonétique*, *Phonetik*, or *Lautehre*. If synchronic phonology can be summarily described as the grammar of sounds and letters, our term *phonetics* covers it, and we have practised the discipline in some form or other for centuries. It would be a good thing if we could put “the rectification of terms” on the agenda of our future international meetings.

¹ “The technique of semantics,” *Transactions*, 1935.

The title of my paper, "The English School of Phonetics," is a phrase taken from Sweet's paper to the Philological Society on "The Practical Study of Language," in 1884. In the preface to his *Handbook of Phonetics*, published in 1877, he had said: "England may now boast a flourishing phonetic school of its own."

The purpose of my paper is to go further, and by giving a brief account of the origins and reaches of our notable work in this branch of linguistics and of the share the Society had in its encouragement and propagation to show how very English it is, and to emphasize above all things, continuity in that quality over a long period. My use of the words "origins" and "reaches" is neither historical nor technical, but merely personal and occasional. I dare say you will find my use of the word phonetics very broad, since it will be taken to mean what English people have intended to say when they used it. In other words, I am not considering *la phonétique* or *Lautlehre*. [If I refer to phonetics as an American word, I shall give due warning.]

The first step is to summarize the miscellaneous aims of English workers in phonetics. These aims I will state briefly by selecting my headings from a pamphlet by Professor Daniel Jones, published by the International Phonetic Association in 1938:—

1. *To help learners of foreign languages to acquire a good pronunciation.* Under this first heading, Professor Daniel Jones introduces the expressions (a) "phonetic analysis", (b) "phonetic training" [Exercises for the organs of speech and ear training], and (c) "phonetic transcription" "broad transcription".

Other headings under which the aims are stated are:—

2. *To help the study of the Mother tongue and of standards of pronunciation.*

3. *Speech Defects*—and may I add here the difficulties of the deaf and the blind. These interests are fairly common among phoneticians, especially in England and America.

4. *Orthographies for Oriental and African languages.* Under this heading, such expressions as "adequate alphabets, good

alphabets, phonetic orthography, good orthographies" are used—and the following typical sentence occurs: "And it is perhaps not too much to hope that in due course we in Europe may realize more clearly some of the defects inherent in our conventional systems of spelling, and may take some steps to remedy them."

"Spelling Reform" in England is not specifically mentioned, but some English phoneticians of to-day are interested, like many of their predecessors from Orm onwards. This interest in the spelling of English is one of the main origins of what I have taken the liberty to call the English School.

5. *Other Types of Alphabet.* Shorthand and other codes. Here the origins go back to Dr. Timothy Bright of Yorkshire and London in the time of Elizabeth.

6. *The Comparative Study of Languages.*

7. *The History of Languages.*

8. *Dialectology.* Professor Jones says this is a field of research which is essentially phonetic in character. It is under this head that he introduces the expression "narrow transcription".

Again, English work has been outstanding, and we must notice Joseph Wright and his fellow workers.

These eight headings are presented in Professor Jones' order—but for the purpose of my paper the order is not significant. Professor Jones thinks the uses of phonetics under headings 1 to 3 most important, and then 4 and 5. Joseph Wright emphasized 8, Dialectology, and, as you will find in the biography by his wife, thought it the best possible school in *practical phonetics*, of which he claimed some knowledge.

A pamphlet by Paul Passy, similar to the one by Professor Jones, had previously been published in 1929, also by the International Phonetic Association, but again clearly inspired by the work of the English School. Here, typically enough, there is evidence that we select something English which we find good, and not only regard it ourselves as for the good of mankind, but persuade other people to adopt it. Then, with our usual commonsense, we agree to call it international.

Mention of Passy is a reminder of another most important interest of English phoneticians—"English for Foreigners". This interest is the main origin of the International Phonetic

Association, as Professor Jones showed in a report to the Association on the 27th July, 1935.¹ He says:—

“For a year or two preceding 1886, a small group of French teachers had been experimenting with using phonetic transcription in the practical teaching of English. . . . I suspect that they must have got their inspiration from the already famous English phonetician, Henry Sweet.”

He goes on to tell us how Passy founded a society with an English name, “The Phonetic Association of Teachers of English,” and started a journal called *Dhe Fonètik Tîtcer*. In 1886, says Professor Jones, the following extract of a letter from Sweet was published in *Dhe Fonètik Tîtcer*:—

“Agreement is impossible as long as each nation expects concessions to be made to the traditions of its own spelling. We in England [meaning presumably A. J. Ellis and himself, adds Jones] have made a great step in the direction of internationality by adopting the roman instead of English values, and it would be a good thing if Frenchmen could be got to make a similar concession by abandoning their cumbersome diacritics.”

Vietor, Klinghardt, Storm, and Passy all discussed this problem, and at one time it looked as though Sweet’s improved version of Bell’s Visible Speech might be adopted as the alphabet of the Journal. These quotations serve to show the importance of our interest in English for foreign students, and our labours towards a reasonable practical use of the roman alphabet in transcriptions and orthographies.

Since I propose to trace the origins and reaches of the English School of Phonetics by a regressive method, let it be noted that Jones, Palmer, Ripman, Wyld, Wright, Sweet, and Ellis devoted a great part of their work to English for English people and for foreigners. As in other branches of phonetics in England, there were earlier forerunners and there are many followers. After all, the English—or the Britons, as Alexander Hume would have said—have been something of a success as practical internationalists. Through our interest in English for

¹ *Le Maître Phonétique*—Juillet-Septembre, 1935.

foreigners, we helped to make the International Phonetic Association, and we must see to it as good internationalists that it continues to prosper.

I think the emphasis on "practical" is a constant feature of the work of the English School, certainly during the nineteenth century, and we do not take offence when Germans refer to our work with pejorative intent, as "ganz praktisch", because we know that when they have borrowed its ideas, the result is "wissenschaftlich". Typically English also are the contradictions to this emphasis. Professor Daniel Jones has from time to time given us some of the most abstract theory in phonetics. I feel "guilty" too—though here theory led not to a theoretical treatise, but to a successful application of phonetics to operational linguistics during the War. May I conclude this play on "practical" with a quotation from a letter from Henry Sweet to the Vice-Chancellor of Oxford University in 1902:—

"My own subject, Phonetics, is one which is useless by itself, while at the same time it is the foundation of all study of language, whether theoretical or practical."

Perhaps we English phoneticians have ourselves talked too much of the practical value of phonetics. If we had followed Sweet's example, and while insisting on its fundamental nature and high academic value, had freely confessed its uselessness by itself, we might have had more University teachers of the subject by this time in our own country.

The fact that a number of English phoneticians studied in Germany also adds a certain piquancy to their English quality. Professor Jones himself tells us in an article on William Tilly that he first studied phonetics in Germany. Sweet and Joe Wright are among others who studied in Germany, but both went out of their way to claim with pride—some might call it arrogance—that they were largely self-educated. So were the Bells.

This individuality, this independence of academies, this proud status of amateur, is quite common among English scientific workers.

Before I move much further back, following the regressive method, to look for the origins of these features of the English School, I want to do two things—first, to bring in the Scots with James VI of Scotland and I of England, and secondly, to add to the list of interests occupying our attention in phonetics.

A distinguished Scottish schoolmaster, Alexander Hume, wrote a little tract¹ “Of the orthographie and congruities of the Britan Tongue; A Treates, noe shorter then necessarie, for the Schooles”. He dedicated it to James I, that wise and scholarly monarch, and is believed to have read an address of welcome when James returned to Scotland in 1617, after fourteen years in England.

He insists that grammar is built on good spelling and that the subject of his Tract is really grammar, and begs His Majesty “at your first entrie to your Roial Scepter”, to reform the grammar. His first Chapter is entitled “Of the Groundes of Orthographie”, and there are five good sections:—

“1. To wryte orthographicallie there are to be considered the symbol, the thing symbolized, and their congruence. Geve me leave, gentle reader, in a new art, to borrow termes incident to the purpose, quhilk, being defyned, wil further understanding.

“2. The symbol, then I cal the written letter, quhilk representes to the eie the sound that the mouth sould utter.

“3. The thing symbolized I cal the sound quhilk the mouth utteres quhen the eie sees the symbol.

“4. The congruence between them [*fol. 7b*] I cal the instrument of the mouth, quhilk, when the eie sees the symbol, utteres the sound.

“5. This is the ground of al orthographie, leading the wryter from the sound to the symbol, and the reader from the symbol to the sound.”

Hume uses the word *symbol* and the expression “written letter”—not just “letter”.² The English phoneticians have

¹ E.E.T.S. Reprints, 1865, No. 5. Cf. Section “Of the Britan Vowels”.

² *Litera* or *littera* was always a sound—*vox articulata*. Cf. pp. 103, 104.

always interested themselves in symbols, letters, types, type-design, and printing; so did their forebears too from the earliest times. Scotland joins in, bringing us to the very central point, namely that all orthographies, even systems of phonetic spelling, are really within the discipline of grammar. Hume found confusion of letters, spelling, and therefore of grammar, both in England and Scotland. He writes in his dedication to His Majesty:—

“ For the printeres and wryteres of this age, caring for noe more arte then may win the pennie, wil not paen themselves to knau whither it be orthographie or skaiographie that does the (*fol. 2*) turne: *and* schoolmasteres, quhae’s sillie braine will reach no farther then the compas of their cap, . . .

“ . . . fel sundrie tymes on this subject reproving your courteoures, quha on a new conceat of finnes sum tymes spilt (as they cal it) *the King’s language.*”

“ In school materes, the least are not the least, because to erre in them is maest absurd. If the fundation be not sure, the maer gorgiouse the edifice, the grosser the falt.”

This bringing in of Scotland with Hume is of some importance, since in all probability there was continuity of interest in Edinburgh in the good spelling and delivery of the King’s Language down to the time of that well-known Scots family of elocutionists, the Bells: grandfather Alexander, his two sons David Charles and Alexander Melville, and grandson Alexander Graham, who, between them, were the leading exponents of the elocution of the King’s English in the nineteenth century in four capitals and five countries—in Edinburgh, Dublin, London, Washington, and Canada; and the last-named, Alexander Graham Bell, was the inventor of the telephone, and of recording on wax, both on flat discs and on cylinders. The Bells were among the makers of the nineteenth century English School of Phonetics. When I use the phrase the *English* School of Phonetics, I am only following Sweet, who was fully acquainted with the facts. Moreover he probably had Scottish blood himself.

Hume complained of a confusion of letters and spelling. The confusion was characteristic of the age, it is true—but

the English and the Scots, and certainly the Irish, do not break their hearts over such things. They become incurable orthographists, alphabeticians, inventors of shorthand and codes, full of adventure in letters and signs. They have always been so. Judging by the bewildering variety of phonetic transcriptions of English now current, it seems that our phoneticians are as English as ever.

I have emphasized the long continuity of English interest in those subjects of study which Professor Jones listed as the province of phonetics, and I now suggest a long look back from modern times through the Revival of Learning to the Conquest and before.

Subject number two was the mother tongue and standards of pronunciation. It is this interest in the spelling and pronunciation of the mother tongue, the King's Language as Hume and even earlier writers called it [both these by English tradition at any rate, being within the province of grammar], which provides ample evidence of the main origin of our School, and the reason for the pre-eminence of the English in these studies.

In emphasizing the long continuity of these features of English grammar, I have been greatly encouraged by the well-known introduction to Harpsfield's *Life of More* by the late Professor R. W. Chambers, entitled "The Continuity of English Prose from Alfred to More and his School". First of all, therefore, I propose to quote a few key sentences from that brilliant essay. In the sixteenth century,

"What England most needed was a prose style in which contemporary events were recorded in living and dramatic narrative. . . . Although the first of the great European nations to evolve such a style, England had been passed in the race by her Continental rivals, till Sir Thomas More and his disciples gave back to her what she had lost."

"The King's English of the South was making itself felt in the North of England, in the eleventh century as it did not do again till the fifteenth—a Standard English Prose is there."

And this King's English, standard over all England, was intelligible over the whole of Northern Europe in Saxon times.

“ There was one speech only in the North, before William the Bastard won England.”

says one of the Sagas.

“ In the remarkable development of an official language, England preceded the nations of Western Europe by some centuries.”

“ In this matter eleventh century England was getting into the fifteenth century—until William the Conqueror put a stop to it.”

There you have the main subject. The interest for us is the claim that the English were the first in Western Europe to establish respect for a standard form of the mother tongue, and this before the Conquest. Wherever there is established respect for official prose, wherever a written standard language is institutionalized, there is grammar. Chambers establishes a continuous tradition between Alfred and More in the writing of the King's English. For future research I suggest we might enquire into the continuity of Latin and English grammar and the teaching of Latin and English, between Aelfric and Ascham.

My first step in suggesting the links of this tradition will be to notice a few sixteenth century scholars at the More period of our story.¹

Sir Thomas Smith, Secretary to Queen Elizabeth travelled widely on State business and met scholars in Paris, Orleans, and Padua, to discuss problems of spelling and pronunciation—especially of Greek and English. His “ abominable ” pronunciation of Greek horrified modern Greeks he met in Paris, but he stoutly maintained the metrical value of his reformed pronunciation in the English style and was responsible for the main features of our present-day pronunciation of classical Greek. Roger Ascham, Sir John Cheke—Provost of King's, Walter Haddon—the Latinist, were all friends of his and formed a

¹ Thomas Wilson, author of the “ Art of Rhetoricke ”, 1559–1560 ; Sir Thomas Smith, scholar and courtier—and most appropriately for my purpose, Secretary to Queen Elizabeth—author of “ de recta et emendata Anglicae Scriptione ” in 1568, and “ Alphabetum Anglicum ”—a most significant title ; Bullokar 1586 ; and John Hart, the Chester Herald.

coterie which did much to mould the course of the Renaissance in England on its pedagogic side.

Thomas Wilson (LL.D. of Ferrara), the author of the successful *Arte of Rhetoricke*, tutor to the Brandons, courtier, statesman, writer and scholar, was in touch with the Renaissance, the Reformation and the Revival of the State under the Tudors—the last-mentioned point, taken with the fact that Sir Thomas Smith was Secretary to the Queen, being to my mind significant.

All the coterie confidently believed in the strength and worth of the native English character menaced from abroad. They wished to make learning accessible in the vernacular to Englishmen, and the use of English accessible to the foreigner. They frequently show that the reading of the Ancients had awakened a new delight in the sound and melody of the Mother Tongue as well as its appearance in the new printed books now multiplying.

Wilson points out “grammar doeth teach to utter wordes : to speak both apt and plaine”, and discusses faults in pronunciation. Notice that grammar is concerned with utterance and speech.

Sir Thomas Smith, while drawing attention to the high place of the Mother Tongue in the life of the nation, was not afraid of spelling reform and had a distinct feeling for bringing English into line with classical or Italian values of Latin, which Sweet mentioned with some pride in his letter to *The Phonetic Teacher* already quoted. The following are examples of Sir Thomas Smith's spellings :—

cēs — cheese
 carite — charity
 kac — catch.

Here was an Englishman with a truly international outlook in transcription.

The works of William Bullokar, published between 1580 and 1586, are of great interest technically, since they present many features immediately recognizable as characteristic of our work. May I just list the topics he discusses :—

- i. Description of the Pronunciation.
- ii. Problems of Transcription.
- iii. Type—with notice of the skill of the printer, founder, and graver of his many new letters and sorts.
- iv. Use of superfluous or unnecessary letters.
- v. New Grammar.
- vi. Test of the alphabet in various forms of cursive writing.
- vii. The names of the letters.

But the most interesting work from the point of view of continuity and of common English interest, was a book published in 1569 entitled “An orthographie, conteyning the due order and reason, howe to write or paint the image of mannes voice, most like to the life or nature”—compiled by John Hart, Chester Heralt.

In his preface he says of this treatise :—

“Orthography is a Greeke woord signifying true writing, which is when it is framed with reason to make us certayne wyth what letters every member of our speach ought to bee written. By which definition we ought to use an order in writing, which nothing cared for unto this day, our predecessors and we have been (as it were) drowned in a maner of negligence, to bee contented with such maner of writing as they and we now, have found from age to age. Without any regard unto the severall parts of the voice, which the writing ought to represent.

“And I touching writers, doe marvaile our predecessors have continued in the disorder and confusion which is in our English writing.

“Because we think it better to continue in that we know than to lerne the thing wee know not.

“With due consideration of what letters are, and thereafter framed their use to be knowen certainly for the members of our speech.”

Such an alphabet would :

“enable people to read in one quarter of the time,”

be :

“easier and readier for the printer,”

secondly, be a boon :

“for other nations, e.g. Welsh and Irish.”

With such a spelling, a writer or reader would be able to read aloud years afterwards what he wrote :

“ And so read it again perfiteley, when and wheresoever he may see it, though many years thereafter and though he understood no word thereof.”

“ And last for a helpe for the learned sort which desire to pronounce other tongs aright.”

“ This treatise for the profit of the multitude addressed to the learned sort, whose like have been in times past, causers of our present manner of writing, by turning their penne to adde or diminish, alter or chaunge, as though meete into other letters and *carractes*, much differing from the olde Saxon manner [cf. Bell].

“ So well a learned gentleman in Greek and Latin and travailed in certain vulgares, Sir Thomas Smith, has written his mind, in hys booke of late set forth in Latin, entitled, ‘*de recta et emendata linguæ Anglicanae scriptione.*’

“ Whereof and of this my treatise, the summe effect, and end is one in which is, to use as many letters in our writing, as we doe voices or breathes in speaking, and no more : And never to abuse one for another, and to write as we speake : which we must needes doe if we will ever have our writing perfite : and for such voices, sounds or breathes, as we have not fit carrects, markes, or letters, we may without offence to God or reasonable man, chuse and use, fit new markes or letters for everye of them, and so we may be duely served at our neede : and not be driven to abuse any one in two or three sounds as we noew doe diverse.

“ Use, power and sound of every letter, by examples in *diverse languages* (i.e. potestas).

“ Romans made all the world learn Latin. We English, are the same to the Welsh—in whose manner of writing, peradventure there is better order kept.”

“ Letters are the *figures and colours* wherewith the image of man’s voice is painted.”¹

On loan-words he remarks :—

“ For so the French doe terme it, when any foren is so received amongst them, they cal him *naturalized*. And let foreigners borowe from us.”

The main point for the thesis of my paper is Hart’s claim to have spent twenty years studying the spelling of English for five hundred years back—that is, to the eleventh century.

Hart’s pride in his study of five hundred years of English spelling gives me, I think, a valid reason for going back to

¹ *N.B.*—See remarks below, p. 104, on *nomen, figura, potestas*.

Aelfric's Latin Grammar,¹ which is the first grammar book in English. It is based on Donatus and Priscian, but quite different from either in its composition. Aelfric says two very important things in his preface :—

1. That he is making the book for quite young boys.

2. That he hopes it may be some introduction to both Latin and English Grammar, if anyone wants to use it that way.

A careful study of the Grammar shows that he is plainly justified in these claims, for he rearranges the information gathered from Donatus and Priscian, and expands or curtails it to suit his English boys. Throughout the book there is no example which a little Saxon could not be expected to understand.

Grammar is *stæfcræft*, letter skill. All English grammars have been rather like Aelfric's—they are all Latin grammars anyway.

In this paper, I can only mention one or two points in Aelfric's Grammar to illustrate the age-old study of letters, their names, their shapes, their values. In discussing the letters he starts us off with the three Latin categories, *nomen, figura, potestas*—nama, hiw, miht—roughly meaning a letter has a name, is a shape or image, has an 'office' or power in grammar, according to its position and use.

From Aelfric's time through the medieval sciences of Grammar and Rhetoricke, renewed during the Enlightenment, and on through modern times, the trinity has been a central principle. These three properties continue to interest us all through our grammatical history, since common practice in spelling built up by tradition and follies of various sorts, has been a constant challenge and exercise to grammarians, alphabeticians, orthoepists, orthographists, shorthand writers, and spellers, and speakers of the King's Language. As the use of written and spoken English spread throughout the world,

¹ A recent French work of romantic history, *Aelfric* by Marguerite Dubois, 1943, adds nothing to the historical valuation of Aelfric, but is amusing reading.

² See Lindley Murray's *English Grammar, 1795*, Part I, Chapter I.

the challenge and the interest grow stronger. It is not a senseless chaotic spelling or it would not repay study, as our President has pointed out.¹ It is rather an accumulation of spellings, the rules of which, like those of the British Constitution, appear never to be complete, or systematically written down. If our spelling were really "chaotic", we should have to confess ourselves idiots in *stæfcræft* and common decency, for over a thousand years. Instead of which, from Orm onwards, and perhaps earlier, a whole long line of scholars, and others more enthusiastic than scholarly, have studied our use and pronunciation of letters and helped to make the English School of Phonetics.

Let us return to Aelfric to emphasize once more the connection of grammar with speaking rightly. I would like to quote a few lines from Aelfric's Colloquy, which gives us an idea of the importance of the speaking or utterance of Latin, and presumably of English also:—

"We children beg thee, oh teacher, to teach us to speak because we are ignorant and speak incorrectly.

"What do you want to say?"

"What do we care what we say, provided it is correct speech and useful and not foolish or bad."

The Colloquy is really a set of dialogues or colloquial lessons around such common things as husbandry, hunting, fishing, the life of a merchant or sailor. Nowadays we should use other subjects for colloquial exercises, but there is the idea. I do not know whether the old teachers used a Book of the Seasons with pictures, but they might easily have done so. There is nothing new under the sun. Not even Gaspey Otto Sauer.

John Hart, the Chester Herald, looks back, as he says himself, from 1569 even to the Conquest. Now let us go forward from Hart to the Restoration period and the great scholars of the Royal Society. There is a continuous tradition, well summarized by one Elisha Coles, "Schoolmaster in Russel Street by Covent Garden, Teacher of the Tongue to Foreigners—Author of *The Complete English Schoolmaster*,

¹ See *Trans. Phil. Soc.*, 1943.

based on the pronunciation of London and Oxford, 1674." It is written for children and foreigners :—

(Masters themselves) "are so miserably confounded and utterly unable to reconcile their way of spelling with an English pronunciation. . . . Words should be spelled as they are pronounced."

"But for men to teach folk to spell a word one way and then to pronounce it another; what pitiful senseless contradiction is this."

Coles also compiled an English Dictionary explaining :—

"The difficult terms that are used in Divinity, Husbandry, Physick, Phylosophy, Law, Navigation, Mathematicks, Other Arts and Sciences—

containing

Many Thousands of Hard Words (and Proper Names of Places) more than are in any other English Dictionary or Expositor.

together with

"The Etymological Derivation of them from their proper Fountains, whether Hebrew, Greek, Latin, French, or any other language,—

"In a method more comprehensive, than any that is extant."

Though a lesser man than Dr. Wallis, he criticized him with great justice. Hart emphasized his study of five hundred years of English spelling. Elisha Coles maintains the continuity.

"Not that I am ignorant of what's already done. I know the whole succession from Dr. Bulloker to Dr. Skinner; from the smallest volume to the largest folio. I know their differences and their defects. Some are too little, some are too big; some are too plain (stufft with obscenity not to be named) and some so obscure that (instead of expounding others) they have need themselves of an expositor."

There is a clear continuity of studies in all the main topics of interest to phonetics, from the Restoration to the time of Sir William Jones and thence to the glorious earlier days of this Society. Before linking up with Sir William Jones, let us turn to another feature of our school—the invention of systems of shorthand.

The Elizabethan shorthand writers were the forerunners of an incredibly large number of systems of shorthand leading eventually to what we all know as Pitman's. The connection of Pitman and Phonography with our

nineteenth century school of phonetics is well-known, but Bell and Sweet were also students and inventors of shorthand. The technique of modern shorthand is an English invention and has been continually fostered and developed since the time of the great Dr. Timothy Bright.¹

John Wilkins, writing in 1668, notes how "English shorthand writing was much wondered at by foreigners". And well he might be interested, as the author of *Real Character*, particularly since he reproduces a page of Chinese characters in his famous book. For Bright's first astonishing book on shorthand was entitled:—

"Characterie,² An Art of short, swift and secret writing by Character—Invented by Timothe Bright, Doctor of Physicke."

published in London in the year of the Armada.

¹ Timothe Bright, Doctor of Physicke, b. in Yorkshire in 1551. At Ipswich in 1583–4. [In passing it is interesting to note that Cave Beck, Rector of St. Helen's, Ipswich, was the author of *Universal Character* (1657) (see my *Tongues of Men*, p. 71).] Studied medicine in Cambridge and Paris. At Bart's in 1584. Took Holy Orders and became rector of Methley with Barwick-in-Elmet in 1594. Was often absent and suffered from "lack of curats". Practised medicine at the same time. Work on medicine published at Frankfort-on-Main. Played the Irish harp and hated "a false stringed lute" or "a badly shaped quill". Left a collection of Italian books on the theory of Music. He discovered an English "Spaw Fountain" on Haregate Head, recommended it, and went there himself every summer. Knew the Cecils. Wrote *A Treatise of Melancholie*, and his name, with Burton's, supposed to conceal Bacon's authorship.

His *characterie* is beautifully produced in Italian calligraphic style by Jane Seager in *Ten Sybils*. This first lady shorthand writer used vertical columns in Chinese style. In 1589 "Stephen Egerton, his lecture," was "taken by Characterie". William Congreve was one of Bright's descendants. See also Paul Friedrich, *Studien zur Englischen Stenographie in Zeitalter Shakespeares*, Koehler, Leipzig, 1914.

² Bright probably gave currency to the word. John Hart afore-mentioned uses the medieval word *carrectes* as distinct from letters. There is an interesting study to be made of the words *carrectes* and *characterie* in this connection (see p. 103).

The word "Characterie" occurs in the *Merry Wives*—Anne Page says:—

"Fairies use flowers for their characterie."

And in *Julius Caesar*, Act II, Brutus, addressing his wife, says:—

"All my engagements I will construe to thee,
All the characterie of my sad brows."

“ Upon consideration of the great use of such a kinde of Writing, I have invented the like : of fewer characters, short, and easie, every Character answering a word : *my invention on meere English without precept or imitation of any.* . . .

Verbatim and secret. (Italics mine.)

“ Excelling the writing by letters, and Alphabet, in that, Nations of strange languages may hereby communicate their meaning together in writing, though of sundry tongues. It is reported of the people of China, that they have no other kind, and so traffic together many Provinces of that Kingdom ignorant one of another’s speech.”

My purpose at this point, with Bright’s notice of Chinese character, is to link up the interest in spelling and pronunciation with the new age of printed books, and with what I have discussed in Chapter V of *The Tongues of Men* entitled “ The Expansion of Europe and The Discovery of Babel ”, and in the following chapter. In that little book I dealt summarily with a vast subject that has interested me for many years. And what I have been able to do to-day is only a summary of a main branch of that study. It is during the great period from Elizabeth to the time of Sir William Jones that English linguists joined with the rest of the world and made such weighty contributions that we may take heart again as we review them. Our young men and women are coming back from their voyages of discovery and another revival of learning may well be upon us.

In Chapters V and VI of the book just mentioned, I noticed five main topics in the new cultural situation which arose after the great voyages of discovery :—

1. The widening of the linguistic horizon—the beginnings of Egyptian, Indian, and Chinese studies. The rise of polyglot studies and the world-wide collection of facts.
2. The study of exotic alphabets and the casting of exotic types for the new printing presses enabling texts and translations to be multiplied.
3. The linguistic endeavours of the missions (partly noted in 2).
4. The movement for a universal international or auxiliary language, to take the place of Latin.
5. World English.

All these five great cultural movements touched our country, our English scholars, and eventually our school of phonetics. We were in a way prepared to take a leading part. The realization of how great that part has been, is perhaps occluded by an over-valuation of the type of work we associate with Germany during a relatively small period of the nineteenth century. Let us remember four centuries of linguistics before Bopp was born, and the inevitable change in the intellectual climate of Europe which must follow the downfall of Germany.

But back to Dr. Timothe Bright. His shorthand, published in 1588, is the beginning of a long tradition touching phonetics, orthography, and general linguistics, coming down to our own day. And he brings into the story the influence of Chinese writing which is mentioned by Beck,¹ the author of one of the earliest universal languages, and later by Dalgarno and Wilkins.² I append a note on the earliest vehicle and channel of contact with Chinese character.³ The first real information

¹ See note on Bright.

² See *Tongues of Men*, Chapter V.

³ See :—

(i) *Cartas que os padres e irmãos de Companhia de Jesus escrevevrão dos Reynos de Japão et China aos da mesma Companhia da India e Europa, des do anno de 1549 ate o de 1580.* Printed at Evora by order of Theo. de Bragança, Archbishop of Evora, 1598.

In 1550 they report a big University at Miáco, and mention visits to Bugo or Bungo, Yamáguche, Cangoxima, and Vocoxiura.

Carta do Padre Baltasar Gago de Japão, para os Irmãos da Companhia de Jesu da India es Portugal, Sept. de 1555, reproduces badly written characters for sun, moon, man, and after these, the same in rapid cursive writing, which he says are the ones to learn. On page 61 of the above volume, in a letter from Gaspar Vilela, 1557, is an excellent reproduction of Sino-Japanese characters. There is no mention of China, but two pages are given to the characters. This is the earliest trace of such characters in any Western document I have yet met with and I believe considerably antedates previous notices.

(ii) *Rerum a societate Jesu in oriente gestarum volumen. Coloniae 1574.*

Reports Jesuits at Sangium insula and St. Francis Xavier's mission to Cangozima and Miáci in 1569 aided by a Japanese who spoke Portuguese. On page 451 of this Cologne publication of 1574, there are reproduced "spec. quoddam litterarum vocumque Japonicarum desumptum e Regis Bungi Diplomate".

came from the Jesuits in Japan and related to Sino-Japanese. These letters from Japan begin in 1550 and were printed and circulated. The climax was the visit of princely ambassadors from three kings of Japan to render homage to Gregory XIII in 1585. Details of their visit make thrilling reading in these days.¹ Of the writing of the Chinese, Bright says :—

“ Their Characters are very long and harde to make, that a dousen of mine may be written as soone as one of theirs. Besides, they wanting an Alphabet, fal into an infinite number, which is a thing that greatlie chargeth the memory, and may discourage the learner. . . .

“ And this my invention being altogether of English yield, where your Majestie is the Ladie of the Soyle, it appertayneth of right to you onely. . . .

“ My invention which wanteth little to equal it, with that

(iii) There was published in 1603, *Vocabulario da lingua de IAPAM com adequação em Portugues*, feito por alguns padres e irmãos de Companhia de JESU.

Com licença do ordinario, et Superiores em Nangasaqui no Collegio de Japam da C^o. de Jesus—MDCIII. This book runs into four hundred pages since equivalents are given both in Latin and Portuguese. Special attention is drawn to *Cana*, and to the enormous borrowings of “ caracteres da China ”.

(iv) In the Bodleian Library there is a native Japanese Gojūon Manual printed in Osaka in the year 1617 of our era.

¹ See :—

(i) Choses diverses des ambassadeurs de trois Roys de Iapon qui n'agueires venuz à Romme, rendirent obeissance au nom de leurs maistres et seigneurs, à Gregoire XIII souverain Pasteur de l'Eglise. a Louvain, 23rd March, 1585.

There were two ambassadors, Mantius and Michel, representing the King of Fiunga, the King of Arima, and the Prince of Omura. Their letters were translated from Japanese into Italian and Latin and were publicly read. Then one Gaspar Gonsalvo made a long speech of welcome and appreciation in which the Japanese were referred to as “ gens d'esprit et adonnés à la guerre ”. He referred to their faces, features, strange dress and “ finalement tant par les yeulx que par les oreilles ils puysoient leur langage non plus ouy ”. Their long journey which took three years is fully described. “ Et ceux qui jamais de nulle memoire d'homme (que je puisse scavoir) n'ont octroyé vic'oire aux armes de leurs ennemis externes.” . . . now acknowledge the victorious standards of Jesus Christ. Then, no doubt remembering that a Pope Gregory had received the conversion of England, made the very first comparison of the Japanese Islanders at the far end of Asia, with the British Islanders at the far end of Europe. ‘ The first come to render homage to the Holy Father, the others one could only pray for.’

old devise of Ciceroes, but your Majestie's allowance and Cicero's name." The learning of Characterie involved two things :—

- (i) Making of the Character.
- (ii) Value and signification,

with a pricke at every breathing or pause.

"Thou mayest attaine unto it, if thou wilt but one moneth take paines therein and by continuance of another moneth mayest thou attaine to great readinesse."

As a model of good Characterie, Bright published the Epistle to Titus. The characters are written vertically from top to bottom in Chinese fashion. They were grammatically representative in that the plural of a character was by context—2, plus the character for man, meant two men—or the plural could be represented by a dot. "Tence" was also shown by "prickes", the time to come was shown by a "pricke" on the right side. He classified his words in categories like Primitives and Derivatives, e.g. vertue and vertuous, and marked the derivative as an adjectival word with a grammatical mark. He used the ordinary character for "ship", i.e. a sea-going vessel, as a nominal mark to the right of such words as *friend* and *neighbour*, so that the character for *neighbour* with the *ship*-character alongside, read *neighbourhood*.

He was the first to classify his words by sense, in the ideological and Chinese manner, and in this way through Wilkins and the later introduction of Sanskrit dictionaries, the tradition gave us Roget's Thesaurus and other things like it in the nineteenth century. I will quote one example of Bright's shorthand sense. In the economy of strokes he suggested pairing words by differences, and said :—

"Leave the vowel and take that which may make the difference—as *straight* and *strain*." "

Since 1588 there has been a continuous traditional interest in Characterie, Universal Alphabets, Spelling Reform, and Shorthand. Dalgarno, one of the seventeenth century rationalists, tried all these and produced an alphabet for the

Deaf and Dumb as well, so he is in several streams at once as it were. Wilkins is the best known of that group but is not necessarily the most important. He was the principal spokesman perhaps.

Then in the eighteenth century we had Gurney, Byrom, Blanchard and Taylor, and in the nineteenth century the great Pitman.

I need say very little more about shorthand now that I have mentioned Pitman. He is, by right of genius and work—and as the last great man in a long line of distinguished men beginning with Timothe Bright—one of the makers of the English School of Phonetics. In August, 1937, I received the following letter from the Isaac Pitman of to-day:—

“ Dear Sir,

“ I am sending you, as a member of the International Phonetic Association, a copy of the Souvenir Booklet which has been brought out in commemoration of the Centenary of the invention by my Grandfather of ‘ Phonography ’.

“ It is written by Mr. D. Abercrombie, a member of the Association, and contains a preface by Professor Lloyd-James, and is on a subject which is presumably of great interest to you.

“ I hope you will accept it with my best wishes.

“ Yours sincerely,

“ I. J. PITMAN.”

Mr. Abercrombie by this time no doubt realizes that the origins and reaches of the English schools of shorthand go far back in our history. It is not true that all modern phonetic transcription derives from the work of Pitman and Ellis, nor that many characters, such as *ʒ*, *ʃ*, and *ŋ*, were original with them.

It is this invention of new letters to serve the needs of new spelling or transcription which I wish next to notice.

In the ancient days there were the runes and letters of Old English, later the devices and inventions of Orm. In my *Tongues of Men* I emphasized the importance of the study of alphabets and letters in the early stages of all linguistic

endeavour. This applies always and everywhere. Sir Thomas Smith, aforementioned, Secretary of State, wrote his *Alphabetum Anglicum* in 1568. It consisted of thirty-four letters, including four Greek and three Old English.

Smith's *Alphabetum Anglicum* was published *before the great series of exotic alphabet studies* issued by the Propaganda Fide,¹ and is one more illustration of our common saying that charity begins at home. Sir Thomas Smith's *Alphabetum Anglicum* was a very early expression of the spelling and printing problems of the new age resulting from the spread of literacy and the multiplication of books. As you would expect from the story I have already told, we produced a great scholar and public servant who showed English interest in such practical matters, and set an example widely followed on the Continent. He was the Elizabethan "Sir William Jones".

The main things to remember about his attitude to letters are :—

1. He devised his alphabet as a systematic spelling of the English Language he used, and gave it the European name of 'Alphabetum Anglicum'. He wrote his treatise in Latin to give English to all who could read Latin.

2. He made use of those roman letters which became superfluous when he approached the language phonetically, and thus, as we have seen, used *k* and *c* systematically. His use of *c* was an excellent step forward.

3. He drew on other alphabets well known to him and to others—Greek and Old and Middle English.

4. His reputation and prestige were high and his influence at home and abroad considerable. Was he not Secretary to the Great Queen ?

Bullokar (1580) aforementioned was prolific in typography, and invented eighty new sorts, and a multitude of letters with diacritics and marks, including the cedilla. He goes out of his way to seek the advice of his printer and commends the skill of the graver and founder. He gives the new letters names, so with due attention he makes sure of the *nomen* and the

¹ *Alphabetum Ibericum sive Georgianum*, 1629. *Alphabetum Coptum*, 1630. *Alphabetum Aethiopicum sive Abyssinum*, 1631, etc., etc.

figura—but it is the *potestas* which weighs most and in this matter we must bend a modest head. So do not let us blame him.

Bullokar touches five main topics of interest to all phoneticians: (i) he gives a description of pronunciation, (ii) discusses problems of transcription, (iii) looks at spelling reform and typographical invention, (iv) connects all these with grammar, and (v) sees the importance of English for foreigners. “What can be more important than speech?” he asks, and “what is liker to be of longer continuance than letters, which give knowledge without speech, and yet be a pathway to speech”.

For the *figurae* of Sir Thomas Smith and Bullokar’s books, and indeed for all of them to come, reference must be made to the original pages. May I suggest that one of our phoneticians should take up this line of development and devote a special study to it? I should welcome anyone who would offer to do it.¹

Queen Elizabeth tried Bullokar’s spelling in a letter to Lord Burghley.² But then, she tried most things.

The interest of subsequent grammarians in new letters was continuous down to our time.

Charles Butler, author of “The English Grammar, or the Institution of Letters, Syllables and words in the English Tongue”, Oxford, 1633, linked the studies of grammar, music, and gymnastics, believing that the exercise of the limbs and the ordering of the voice in speech and song were complementary. He quotes Quintilian and the Venerable Bede in support of this view. Hebrew, he says, has preference as the original language, but the Teutonick (whereof the English is a dialect) being the language of the unconquered Conquerors hath continued from the confusion till this day. He quotes Sir Thomas Smith, and is happy that the Welsh

¹ Mr. David Abercrombie (see p. 112) is now engaged on a history of phonetic transcription, in which I hope there will be reproductions of most of the earlier contributions to typographical experiment.

² See Strype’s *Annals*, vol. iv, p. 77.

are not so cursed with imperfection and uncertainty of writing. He invented several good letters, which are still used in transcription, and he employed upside down and reversed letters : e.g., 9 for θ.

William Holder, Doctor of Divinity and Fellow of the Royal Society, invented at least two vowel symbols still in common use. His book, to my mind, is one of the most interesting in the early history of phonetics. It is entitled "The Elements of Speech, an Essay of Enquiry into the natural Production of Letters, with an Appendix concerning persons deaf and dumb". It was published in 1669, after some delay of the MSS. by interested rivals in the group of scholars who were to become the first Fellows of the Royal Society. Holder's book was reprinted by Pitman in 1850 and 1865. Holder's book is surprisingly modern, and it is not to be wondered at that Wallis and others endeavoured to delay and even suppress it. He realized the obscurity of the sounds of speech and how "troublesome and laborious" was the Art of Orthography. He did not think much of existing books on the subject.

"I have refrained to look into them, for fear of being led away by other men's fancies ; whereas I rather chose to consult Nature at hand."

Holder gives an excellent account of the organs of speech, and the following definition of consonants :—

"But where there is an appulse¹ of one organ to another, the letters which are so framed are consonants. Again the appulse is either plenary and occlude, so as wholly to preclude all passage of breath or voice through the mouth, or else partial and pervious so as to give them some passage out of the mouth—producing lisping, hissing, or jarring. The nature of consonants being framed by appulse, is much easier to be discerned than that of vowels."

His descriptions of the sounds are quite good even judged by present-day standards, and his instructions for the production of laterals, including Welsh *ll* surprisingly accurate. He

¹ Martianus Capella (flourished about 470 A.D. in Carthage) describes Latin D as follows : *appulsu linguae circa superiores dentes innascitur*, Q, *appulsu palati ore restricto*, and T, *appulsu linguae dentibusque impulsis extruditur*.

noticed the stop made "by closing the larynx", "of some affinity to *k*," and treated this glottal stop and *h* together. He noted pronunciations of voiced consonants that ended "spirital" (unvoiced). His attempt to establish a "series of the vowels according to their degrees of aperture" anticipated work in our own day. He even suggested the notion of the syllable as "determined by alternation of appulse and aperture". "Speech is a mixture of apertures and appulses." "The so-called diphthongs are, as I conceive, syllables." "Accent and emphasis are much confounded." "The sense of hearing is only partly understood." Whether Wallis and other contemporaries really understood Holder is open to question. They treated him very shabbily.

From Holder through Sir William Jones to the Bells, Ellis, Pitman, Sweet and men we have known personally, there is continuity of interest in all the aspects of phonetics mentioned, including the need for new letters and all manner of typographical invention. Of them all, I find Ellis and Melville Bell rather self-centred, not to say self-opinionated, and am of the opinion that they have been over-rated. However, Bell was by profession a *performer*, and perhaps his performance was very much better than his script. I do not propose to attempt a closer examination without printed examples, but that, I hope, will be done by someone else. The time has come to put Wallis, Ellis, and Bell in their proper places.

As you have just seen, professors and University dons got hold of our subject about the middle of the seventeenth century. In the words of a contemporary, "many others of the most inquisitive persons in Oxford met weekly." Great things came of these meetings, but in our own subject the worst side of University life—petty jealousies and rivalries, plagiarism and forestalling—were such, that Dr. John Wallis eventually produced thirty-three closely printed pages to defend himself, to attempt to justify indefensible behaviour and at the same time to cover Holder with ridicule. Wallis's own work makes a great show of bits of Arabic and Hebrew as

well as of Greek and Welsh, and refers somewhat childishly to the Cambro-Britanni, but phonetically he is something of a puzzle. He proudly claims that he was the first to add the nostrils to the organs of speech, and said :—

“ The difference of *f* and *v* lying, not in the lips or larynx, but in the nostrils.”

Unless he really had something there and in similar remarks which are too deep for me, I am of opinion that phonetic observations made by him should be treated with caution.

It took nearly two hundred years for some justice to be done to Dr. Holder, and having seen the records of the Restoration rivals, I am happy that so great a man as Pitman should have honoured an original thinker much in advance of his time, who was so ill-used by Professor Wallis and other “ inquisitive persons ”, in Oxford.

Another contemporary genius of the group, Dalgarno,¹ was also shabbily treated by the said “ inquisitive persons ”. Charles II however, hearing of this, granted him a pension and honourable mention in the award.

Dalgarno and Holder both interested themselves in teaching the deaf to speak, and this interest continues right through our long line of workers to the Bells. Alexander Graham Bell used his father's Visible Speech in the training of teachers of the deaf at the Volta bureau. This interest in hearing, not forgetting the hard of hearing, is still a major interest of the London School. It is in the seventeenth century and in the Royal Society group that emphasis is first laid on the sensory disciplines, and especially on hearing, training the ear, the eye, and close visual observation and introspective observation of the organs of speech and the mechanism of utterance. Holder is remarkably modern, and I think there are still little points of interest to us in this book with the very modern title *The Elements of Speech*.

¹ “ This enterprise of Mr. Dalgarno (i.e. Universal Character) gave occasion to Dr. Wilkins to pursue the same design.” From a report to the Royal Society. See *The Real Character of Bishop Wilkins*, by E. N. da C. Andrade, F.R.S., *Annals of Science* Vol. I, No. 1, 1936.

Now let us turn to Sir William Jones, usually described in library catalogues as *The Orientalist*. We cannot add to the greatness of Sir William Jones by including him as one of the makers of the English School of Phonetics. I hope I do him no harm. For his letters and writings leave us in no doubt that he rather despised scholars who were absorbed in languages for their own sake. 'A mere linguist' was a word-mongering bore.

Nevertheless, Sir William Jones had a shot at a phonetic transcription of English which you may see either in his works or in A. J. Ellis. Ellis, another Welshman, seems to have given great attention to Jones's excellent account and transcription of the Devanagari syllabary, and he and Murray and other English pioneers spent hours listening for example to Mr. K. G. Gupta and Mr. Mookerjee making Indian sounds, and discussing Indian views on phonetics. There is an atmosphere of discovery in exotic regions in all this part of Ellis's work, and to all of us who value sources, it will be of the greatest significance that Jones and Ellis link us up with an eastern source of phonetics, far more competent than anything hitherto produced in the West. Not only that. For the first time in this country the Roman alphabet really meets the Arabic, Persian, and Indian systems of writing, and the age-old trinity of *nomen*, *figura*, and *potestas* severely tested.

Each of the Arabic characters has a distinctive *nomen*. In Greek some of these survive. In the Roman alphabet, the *nomen* is generally derived from the *potestas*. In the Devanagari character we meet with a syllabary arranged according to phonetic principles in a regular phonetic order and the *nomen* of a character, under certain rules of usage, is the *potestas*. The importance of these new facts plainly presented by Sir William Jones was never fully realized by the nineteenth-century phoneticians. Sweet was too near to Ellis and Bell, and too specialized in his outlook to appreciate the epoch-making importance of Sir William Jones in the further development of the English School of Phonetics. Melville Bell was a small man. Ellis was more prolific than profound,

or in other words, his standards of accuracy and of ready intelligibility were not adequate for the scale of his experiments in letters and transcriptions.

Ellis, Bell, and the early nineteenth century workers in phonetics had studied most of the work we have so far noticed. Of John Hart's "Orthographie, conteyning the due order and reason, howe to write or paint the image of mannes voice, most like to the life or nature", Ellis remarks "a most disappointing book". He made fun of the great Sir Thomas Smith, and had no great opinion of Holder's "Elements".

The most epoch-making work between that of the Restoration Royal Society group and Sweet's real foundation of the School, was the immense stimulus given to phonetics and general linguistics by Sir William Jones.¹ Without the Indian grammarians and phoneticians whom he introduced and recommended to us, it is difficult to imagine our nineteenth century school of phonetics.

Ellis links up with another great Orientalist, Whitney, who had translated parts of Sanskrit phonetic treatises, and who had published a Unitary Alphabet in the *Journal* of the American Orthographic Society.² It is interesting to find Ellis, often inaccurate himself, noting the phonetic clumsiness of Bopp and correcting descriptions of the so-called cerebral consonants. Several modern books which notice Indian sounds might well have been amended in the light of these very early observations. Ellis devotes quite a number of pages and many footnotes to the Devanagari syllabary, and to Indian sounds, which is only what you would expect of a phonetician who knew what Sir William Jones had opened up.

While Charles Wilkins invented and cast types of the

¹ In September, 1946, a Conference of British Orientalists was held at University College, Oxford, to commemorate the bi-centenary of his birth. All the central problems of present-day Oriental studies were discussed, and Sir William Jones was present in them all, including the session in which spoken language and problems of transcription were discussed. In this modest paper I cannot do full justice to the work of our greatest Orientalist, who gave us an introduction to Indian phonetics. Modern grammar and phonetics are founded on the Indian sciences.

² Vol. 8, p. 372.

Devanagari, Bengali, and Persian character, Sir William Jones felt the great need of a proper use of the roman alphabet in Oriental studies.¹ He produced a special dissertation as President of the Asiatic Society of Bengal on the Orthography of Asiatic Words in Roman Letters. His chart of suggested symbols for the transliteration of the Devanagari, with the addition of letters for Arabic and Persian, is the first presentation of what may be called a phonetic alphabet on such a scale. He finds the Arabic alphabet almost perfect for Arabic itself :—

“ Not a letter could be added or taken away without manifest inconvenience. The same may indubitably be said of the Dévanāgari system, which, as it is more naturally arranged than any other, shall here be the standard of my particular observations on Asiatic letters. Our English alphabet and orthography are disgracefully and almost ridiculously imperfect.”

He aims at using diacritics *common in Europe* rather than new letters—and symbols from “ fluxions ” or mathematics—so as to equal the Devanagari itself in precision and clearness.

The following are extracts from Sir William Jones’s comments on the problem :—

1. “ For the expression of Arabian, Indian and Persian words in characters generally used among *Europeans*—almost every writer in those circumstances has a method of notation peculiar to himself ; but none had yet appeared in the form of a complete system ; so that each original sound may be rendered invariably by one appropriate symbol, conformably to the natural order of articulation, and with a due regard to the primitive power of the Roman alphabet, which modern Europe has in general adopted.”

2. “ There are *two ways* of exhibiting Asiatic words in our letters, founded on principles nearly opposite—

“ The first professes to regard chiefly the pronunciation—and this is unquestionably useful, as far as it can be pursued. But new sounds are very inadequately presented to a sense not formed to receive them ; and the reader must in the end be left to pronounce many letters and syllables precariously.

¹ This subject was discussed at the Sir William Jones Bi-Centenary Conference of British Orientalists in September, 1946, and the findings are to be published.

“ Beside, that by this mode or orthography all grammatical analogy is destroyed, simple sounds are represented by double characters, vowels of one denomination stand for those of another ; and possibly with all our labour we perpetuate a provincial or inelegant pronunciation.”

3. “ The second system of Asiatic Orthography consists of rendering letter for letter and so long as this mode proceeds by unvaried rules, it seems clearly entitled to preference. (And when the native character is mainly regular in sound, what could be better ?) ”

Then Sir William expresses the following opinion which will interest all English phoneticians who have faced the practical problems of transcription :—

4. “ If anything dissatisfies me . . . it is the use of double letters for the long vowels (which might, however, be justified) and the frequent intermixture of Italick with Roman letters in the same word ; which both in writing and printing must be very inconvenient.”

He is very near us in such remarks as :—

5. “ The omission of a long mark denotes the short mark if there are only two kinds.”

Writers of theses please note :—

6. “ It is *superfluous to discourse* on the organs of speech, which have been a thousand times dissected, and as often described by musicians or anatomists, and the several *powers* of which every man may perceive either by the touch or by sight—using a mirror.”

7. “ *All things abound with error*, as the old searchers for truth remarked with despondence ; but it is really deplorable that our first step from total ignorance, should be into gross inaccuracy, and that we should begin our education in England with learning to read *the five vowels*, two of which, as we are taught to pronounce them are clearly diphthongs.”

After which he attempts to describe ten vowels, and then says :—

“ There are numberless gradations, a hundred diphthongs and a thousand triphthongs.”

“ A perfect system of letters ought to contain one specifick symbol for every sound used in pronouncing the language to which they belonged.”

Though we have celebrated the bi-centenary of the birth of Sir William Jones this year, we cannot yet claim to have

developed a school of phonetics able to cope with the tongues of Asia and Africa. One would have thought the classical and medieval doctrines of the roman alphabet would have broken down by now, a century and a half after the above sentences were written. But no, disputation continues, especially in America, about *figura* and *potestas* even about *nomen*, and most of it with reference to the employment of roman letters. The use of the roman alphabet is the principle technical aid in the study and teaching of Oriental languages. But the principles and methods of its employment must not be hampered by medieval philosophy.

The most interesting contribution of Sir William Jones to nineteenth century phonetics is the following :—

“Letters by which labials are denoted, represent in most alphabets the curvature of one lip or both; and a *natural character* (italics Jones’s) for all articulate sounds might easily be agreed on, if nations would agree on anything generally beneficial, by delineating the several organs of speech in the act of articulation, selecting from each a distinct and elegant outline.”

The fact that Ellis was particularly interested in the phonetic observations of Sir William Jones, and that he was closely associated with Alexander Melville Bell, and that Bell studied for three years in the British Museum,¹ suggests to me that Bell got the idea of Visible Speech from Jones.

Sir William Jones’s contribution to the study of spelling,

¹ *Alexander Melville Bell*: Some Memories, with fragments from a Pupil’s notebook. Published by the School of Expression, Boston, 1906, p. 13 :—

“In answer to one of my letters to Professor Melville Bell, in which I asked him regarding books on Elocution, and especially regarding those in the British Museum, he wrote among other things :—

“‘From 1840–1843, when I was preparing for an independent professional career, I sought to supplement the “family knowledge” which I possessed, by the study of all the books I could find by predecessors in the profession. But so far as I could discover, there did not then exist in print any complete directory on the subject. The processes of articulation did not seem to have been practically treated by any author. I was thus led by original investigation from my own organs and those of my pupils. I cannot, therefore, direct you to any works of earlier date containing more than hints and general observations.’”

transcription and transliteration, together with his wise observations on phonetics, was the inspiration for a great deal of work in England, Germany, and America. Sir Charles Trevelyan did a great deal to help this forward. Two missionary societies of London, members of the Berlin Academy and other interested persons co-operated to produce the Lepsius Standard Alphabet.¹ The first part of the book gives a full account of the origin and development of this work. The bringing in of continental scholars by the British missions had far-reaching consequences, not all of them good. It also led to the collaboration of British scholars in continental publications, and some work which might have been directed in England became associated with foreign publications.

The influence of the English School was felt in France during the Napoleonic Wars partly through Alexander Hamilton,² of the Bengal group, who was caught in France. C. T. Volney, who founded the *Prix Volney*, saw the importance of transcription and transliteration as a result of the Egyptian expedition and he complained bitterly "de notre inexpérience, permettez moi de dire nationale, et de notre infériorité, sur ces questions relativement aux étrangers". In 1818 appeared his treatise "L'alphabet Européen appliqué aux langues Asiatiques". This title expresses much more than the book contains. The French have not been very successful in their transcriptions and it is a pity to have to remind them that the French Academy substituted exercises on comparative philology for Volney's express wish that his legacy should be for the encouragement of "tout travail tendant à donner suite et exécution à une méthode de transcrire les langues Asiatiques en lettres Européennes". Volney invented a few letters which have been adopted by phoneticians since.

The phonetic and alphabetic work of the Americans in the eighteenth and early nineteenth century is not to be

¹ 2nd Edition, London, 1863.

² *Alexander Hamilton and the beginnings of comparative philology*, R. W. Chambers and F. Norman in *Studies in English Philology*, Univ. of Minnesota Press.

overlooked. I therefore just mention Franklin and Webster and Whitney in this connection. But the most interesting American was Samuel Haldeman,¹ a great admirer of Sir William Jones,² "the purest rhymer" known to him.³ Realizing his natural ability, Haldeman came to London to find colleagues and worked with Ellis and Bell, and afterwards on the continent. He was the real founder of modern Amerindian linguistics which would be impossible without phonetics of the kind which developed first in this country, where the leading exponents were extending their influence.⁴

Haldeman severely criticized Ellis's *Essentials of Phonetics*, complaining especially that the alphabetic portion was so corrupt as to be useless. He also discusses the work of Volney, Max Muller, and Lepsius, records a "dental clack" in an American language, and makes the observation that when linguists commit grave errors in the uses of the speech organs which can be seen and felt, in addition to the sounds being

¹ *Samuel Haldeman* (see Dictionary of American Biography). Of Swiss descent; great grandfather in the American Revolution. A great uncle was in the British Army and was the first Governor-General of Canada. Natural history his main interest. Haldeman's sense of hearing was so acute that he could differentiate the sounds emitted by insects and wrote on the organs of sound in the lepidoptera. Studied American Indian dialects exhaustively, becoming the recognized authority on this subject, and devoted much labour to English, Chinese, and other languages. First Professor of Comparative Philology at the University of Pennsylvania, after being Professor of Zoology and Natural History. In 1858 he won, in competition with eighteen European scholars, a prize of £100 offered by Sir Walter Calverley Trevelyan, a distinguished naturalist, President of the Phonetic Society of Great Britain, for his essay on Analytical Orthography (*Transactions of American Philosophical Society*).

² An earlier American admirer of Sir William Jones, John Pickering, published "An Essay on a Uniform Orthography for the Indian Languages of N. America" in 1820.

³ Cf. R. M. Hewitt's "Harmonious Jones", *Eng. Ass.* 1942.

⁴ See especially his "Report on the Present State of our Knowledge of Linguistic Ethnology, Made to the American Association for the Advancement of Science, August, 1856. Professor S. S. Haldeman, published for the Association by Joseph Lovering, Permanent Secretary, 1856.

After the report was presented to the Association, the Author was commissioned to continue the subject in a further report, upon a system of alphabetic notation adapted to American and exotic languages."

heard, we may well doubt the analysis of sounds formed out of sight, in the depths of the fauces. That reminds one of Dr. John Wallis and the nostrils differentiating *f* and *v*. Haldeman's report makes very good reading, and I imagine Sapir must have known page 6 of the report well, since he used some of the ideas and one of the examples there given. Haldeman had studied the work of Castrén, Sjögren, Schunjitsch, Lepsius, and other lesser known phoneticians and alphabeticians, reproducing some very interesting new letters from various sources. Sjögren had devised useful single letters based on the Russian alphabet, for aspirated plosives. Haldeman recommended the marking of the main accent above and the secondary accent below, and experimented with inverted and reversed letters. He offered sensible criticism of Lepsius, especially of his poor phonetics, and seems to have been of the opinion that the missionaries knew no better, and certainly did not know when Lepsius was compromising science to please them.

Since Haldeman worked in close association with the English School, and had the reputation of being an acute observer, further extracts from his work are of present interest. Wisely he pointed out that *æ* and *ə* "do not yield in distinctness to any of the vowels". He saw that good phonetics must recognize the value for certain languages of "alphabets of a more or less syllabic character", in which "a consonant position and a vowel position of the organs" are regarded "as in a manner constituting a unitary element".

All students of exotic or unwritten languages should ponder the following:—

"The difficulty of pronouncing, appreciating, locating, explaining, and writing down the various phases of speech is so great, and there are so many sources of error, that we must be more cautious in accepting statements here, than in other sciences of observation, few having as much education in this branch as would be required to make a chemist or a musician; or to enable a singer to write down a song properly, even in a notation of his own invention. We cannot even trust an observer who claims for himself a good ear. The Reporter is willing that his assertions be received with similar caution."

He pointed out that most of the simple facts of speech had been *long known in England*, certainly since Dr. Holder's *Elements of Speech*. Among detailed observations of English, he avers that syllabic fricatives were common in such words as *misz* and *horsz*, comparing their syllabic quality and frequency of occurrence with German *v'r-lass'n* and *v'r-der-b'n*.

His view of Dr. Wallis agrees with my own estimate. Haldeman points out that though Wallis knew Welsh and bits of other languages, he was not nearly so accurate or modern as Holder. Haldeman wrote on Amerindian languages and also a work on the "Elements of Latin Pronunciation (1851)", intended as a move towards a general international alphabet.

Having carried the influence of the English School through Sir William Jones to the continent and America, the story is almost told. The last chapter is a brief summary of the continuity of the work of the English School from Sir William Jones through Ellis, the Bells, Murray, Prince Bonaparte, Pitman, to Joseph Wright and the great Sweet, and thus ending where I began.

The building up of the English School of Phonetics as Sweet understood the phrase can be followed in the transactions of the Society between 1860 and 1880. This is fairly recent history authentically recorded in our own transactions. Nevertheless, a few reminders of those days is not out of place, if they help us to take our bearings and give us confidence on our course.

For the Bells, the following biographical and bibliographical details are merely listed. They speak for themselves. The grandfather, Alexander Bell (1790-1865) married a daughter of a surgeon in the Navy. Her mother was a musician and painter. Alexander Bell advertised "the means to effect a complete and permanent removal of all vocal obstructions at moderate charges. No charge till impediment removed". He also advertised the establishments for similar purposes conducted by his sons in Dublin and Edinburgh. He advertises himself as the author of:—

1. Principles of Simultaneous Reading adapted for classes of five hundred or one thousand pupils. London, 1842. Mr. Bell's Elocution System will impart more practical power than can be obtained in thrice that number of lessons from any other mode of instruction.

2. Public Reading, The causes of its defects and the certain means for their removal, dedicated to the Clergy, M.P.'s, and Barristers, and all public speakers.

ALEXANDER MELVILLE BELL: 1819–1905, was a son of the above, and the following notes indicate his career.

American¹ educationalist, b. Edinburgh, Scotland, became an American citizen at age of seventy-eight.

Educated home; studied under and became principal assistant to his father, Alexander Bell, an authority on phonetics and defective speech. Family profession: science of correct speech.

1843–1865: Lectured on elocution at the University of Edinburgh (elder brother Professor of Elocution in Dublin);

1865–1870 at University of London; public readings of Shakespeare and Dickens in London. In '68, '70, and '71 he lectured in the Lowell Institute Course in Boston. In 1870 he became a lecturer on philology at Queen's College, Kingston, Ontario.

In 1881 he moved to Washington, D.C., where he devoted himself to education of deaf mutes by the "visible speech" method of orthoepy. *Physiological Phonetics*.

Removed mystery in Speech Defect work, and denounced quackery.

Works:—

Steno-Phonography, 1852.

Letters and Sounds, 1858.

Principles of Speech and Dictionary of Sounds, 1863.

Visible Speech, the Science of Universal Alphabets, 1867.²

Sounds and Their Relations, 1881.

A popular manual of Visible Speech and Vocall Physiology, 1889.

The Science of Speech, 1897.

The Fundamentals of Elocution, 1899.

See *John Hitz*: "Alexander Melville Bell," Washington, 1906.

¹ Dictionary of American Biography.

² "A Scottish clergyman, and an intimate friend of Professor Bell, Rev. David Macrea, has given an account of the great discovery of Visible Speech:—

"I happened to be at his house on the memorable night when, busy in

The "professional card" of Alexander Melville Bell:—

"Single Lessons, 1 guinea. Twelve Lessons, 10 guineas.
Visible Speech : Six Lessons, 3 guineas.

- I. Stammering and Stuttering.
- II. Defects of Articulation.
- III. Elocution.
- IV. Universal Alphabetics.

Modulated Whisper (Scale of Lingual Vowels)
Course of Diagrams and detailed schematic technique with
schematic terminology."

The title page of:—

" VISIBLE SPEECH

The Science of Universal Alphabetics

or

Self-Interpreting Physiological Letters

for the writing of

All Languages in one alphabet

illustrated by

Tables, Diagrams and Examples

by

ALEXANDER MELVILLE BELL,

Professor of Vocal Physiology,

Lecturer on Elocution in University College, London.

Inaugural Edition.

Simpkings Marshall & Co.,

Tribune NY.

1867."

15/-.

his den, there flashed upon him the idea of a physiological alphabet which would furnish to the eye a complete guide to the production of any oral sound by showing in the very forms of the letter the position and action of the organs of speech which its production required. It was the end toward which years of thought and study had been bringing him, but all the same, it came upon him like a sudden revelation, as a landscape might flash upon the vision of a man emerging from a forest. He took me into his den to tell me about it, and all that evening I could detect signs in his eye and voice of the exultation he was trying to suppress.'"

This is a different story from the suggestion made on p. 122.

Melville Bell pressed his invention of Visible Speech on the government of the day :—

VISIBLE SPEECH

System under Copyright.

An Invention.

“ I wish to put on record here a statement of the facts concerning my offer of the Invention to the British Government, and the reception of that offer.”

“ Even the idea which it realizes is entirely new, the idea, namely, of representing the mechanism of speech sounds in their alphabetical symbols.”

He expected a Royal Commission, and appealed to the Prime Minister, receiving the following reply :—

“ 10, Downing Street, Whitehall, February 12, 1867.

“ Sir,

“ I am directed by Lord Derby to acknowledge the receipt of your letter of the 8th inst., and to inform you that there are no public funds from which he can make you the grant you desire.

“ I have the honour to be, Sir,

“ Your obedient Servant,

“ W. P. TALBOT.

“ A. Melville Bell, Esq.”

At Alphabetic Conferences in London in 1854, under the presidency of Chevalier Bunsen, Prussian Ambassador, it was agreed that :—

“ It would be useless and impossible to attempt to find for each possible variety of sound, a different graphic sign.”

Bell's comment was :—

“ Nevertheless these learned men might be mistaken.”

He claimed that Visible Speech was completely adequate :—

“ And will probably be found to require no *additions* or alterations however *extended* its uses may become.” (*Italics Bell's.*)

ALEXANDER GRAHAM BELL: 1847-1922.

American ¹ inventor and physicist, inventor of the telephone.

Son of Alexander Melville Bell, b. Edinburgh; educated MacLarens Academy and Royal High School, Elgin, matriculated at University College; University of London and University of Edinburgh. Attended courses in Anatomy and Physiology, 1868-1870. Officiated for his father, and then full partnership in the work in London. Bad health. Canada in 1870; Boston, 1872—training teachers of deaf and teaching mechanics of speech. Professor of vocal physiology in Boston.

From Elgin on 24th November, 1865, first piece of scientific work was a letter to his father on resonance pitches of mouth cavities during utterance of vowel sounds.

Spent one year with his grandfather, Alexander Bell. Father sent him to A. J. Ellis, who put him on to Helmholtz and physics. This work was the basis of his telephone and electric communications inventions.

1876. Exhibited in Boston an apparatus embodying the results of his studies in the transmission of sound by electricity, and this invention, with improvements and modifications, constitutes the modern telephone.

Also invented the photophone for transmission of sound by vibrations of light, and phonographic apparatus. He invented an improved recorder and both the flat wax record and wax cylinder record, and reproducer. Patents 1886 sold to the American Gramophone Company.

Like Sweet was interested in flying. Founded Aerial Experiment Association.

Invented a motor boat—speed 75 m.p.h.

1915. Opened the first transcontinental telephone line from New York to San Francisco.

Became an American citizen, but always loved Scotland, and had a large estate in Nova Scotia. Died in 1922, Nova Scotia.

There is no need to remind the Society of Sweet's work or of his influence on continental scholarship. But in view of the revival of learning which appears to be coming in this country, and the renewal of our forces, I would like to conclude with

¹ Dictionary of American Biography.

two quotations—firstly from Sweet's letter to the Vice-Chancellor of Oxford University in 1902 :—

“ My own subject, Phonetics, is one which is useless by itself, while at the same time it is the foundation of all study of language, whether theoretical or practical.

“ The general theoretical side of the study of language is at present represented in the University by the Professorship of Comparative Philology. This term is ambiguous. If we identify it with Comparative Aryan Grammar, there ought to be another Professorship of the Science of Language (philosophical grammar, etc.). . . .

“ The Readership deals with pronunciation in general, and with special reference to such languages as English, French, Latin ; methods of studying languages from a phonetic point of view ; history of sound changes, comparative phonology, and methods of investigation in these subjects ; methods of dealing phonetically with dialects and unwritten forms of speech (for missionaries, etc.) ; phonetic shorthand.

“ We want (1) A School of Modern Languages in the sense of the practical study of languages in general. (2) Restoration of the Professorship of Modern Languages, with the same extension of scope.”

and secondly from his presidential address in 1877 :—

“ Our tendency is not so much toward the antiquarian philology and text-criticism in which German scholars have done so much, as towards the observation of *the phenomena of living languages* . . . the real strength and originality of English work lies . . . in phonology and dialectology. Our aim ought clearly to be, while assimilating the methods and results of German work, to concentrate our energies mainly on what may be called ‘ living philology ’. The vastness of our Empire, which brings us in contact with innumerable languages, alone forces us incessantly to grapple with the difficulties of spoken, often also unwritten, languages. We ought to be able to send out yearly hundreds of thoroughly and specially trained young men. . . .”

It has often been said that England has excelled in two branches of linguistics, lexicography and phonetics. The Society inaugurated our great Dictionary. The Society was also the centre and focus for the development of the School of Phonetics to which Sweet was rightly proud to belong. To-day, general linguistics, lexicography, phonetics, and what Sweet called living philology, are well represented and strongly

supported. Sweet mentioned dialectology too, as part of our strength and originality. In Joseph Wright we had, in the words of Lundell, the maker of the greatest of all dialect dictionaries. His work on the Windhill dialect is a model dialect grammar that has never been surpassed anywhere. Wright's own opinion was that the English Dialect Grammar was far more important than the Dictionary. He wrote notes on gramophone recording. He would have deprecated any approach to dialect study that could not be described as "living philology". The Society has great responsibilities to the English School and its traditions in planning a resumption of dialect studies in this country.

SOME REMARKS ON ARYAN AND MORDVIN LINGUISTIC RELATIONS

By E. LEWY

1. IN an exciting paper (TPhS 1942, p. 406) Dr. Henning pointed out that the traditional text of the Avesta might be read as a metrical text without much correcting of the text. I am encouraged by this to risk two suggestions (4, 5) I have had in my mind for a long time which would support the traditional reading—if they are right.

2. It is a well-known fact that the Finno-ugrian languages are full of Aryan loan-words. H. Jacobsohn's valuable book *Arier und Ugrofinnen* does not exhaust the available facts at all. It may be useful in this connection to give some examples, among which some may be new. An almost complete lack of books may be mentioned as an excuse for my not quoting much literature. The Mordvin words are taken from Paasonen's *Mordwinische Chrestomathie* (= P. and number of the Glossary), the Iranian from Bartholomae's *Altiranisches Wörterbuch* (= B. and page).

3. Mordv. *jan* 'Steig, Pfad', *jon* 'Richtung; Verstand', P. 106, 130, 131 from Av. *yaona-* 'Weg, Bahn; Aufenthaltsort', Geldner KZ. 24.146–8, B. 1230.

In the Mokša-dialect we read, P. p. 47: *s'em'b'e mod'in'e aram t's'eb'er' t'* 'all to-me seem fine-ones'; *aram* 'es scheint mir, meiner Ansicht nach' P. 30 from Av. *arəm* 'recht, passend, wie sich's gehört' B. 188. Perhaps the Aryan word is found in Wogul, too (UngJahrb. 10.386).

As *ásura-* and *bhága-* are represented in Mordvin, we would expect to find those important religious terms Av. *yaz-* 'venerari, sacrare', *yasna-* 'Gottesverehrung im weitesten Sinne' B. 1274, 1270 there, too. There are *azems* '(einen Verstorbenen) durch Opfer und Verpflegung verehren, opfern',

Mokš. 'versprechen'; *oznoms* 'opfern, ein Opferfest begehen, beten', P. 35, 563. I do not see why these words should not be identified with Av. *yaz-*. The derivation of Mordv. *juv* 'Acheln, Spreu', Finn. *jyvä* 'Korn' P. 144 from Skr. *yáva-* does not contradict this, as Greek *ζεαί*, compared with *ἄγιος*, shows a similar difference in the beginning of the word.

Mordv. *mar'ams* 'hören, vernehmen, merken, spüren, empfinden, fühlen' P. 438 from Av. *mar-* 'merken' B. 1142. The word is Wogul, too: *māri* 'glauben' UngJahrb. 10.385.

Not quite so evident is the derivation of Mordv. *vanoms* 'schauen, betrachten, besehen; pflegen; erziehen; hüten, bewahren, beschützen, beschirmen' P. 1229 from Av. *ni-van* 'von oben her bergend verhüllen, bergend schützen' B. 1353.

As for the meaning, cf. Wotyak *vord-* 'aufziehen, schützen, wachsen lassen, erziehen' from Av. *varəδ-* 'augere' B. 1368, UngJahrb. 6.90, and Mordv. *t'r'ams, t'ir'ams* 'ernähren' P. 1148 from Av. *θrā-* 'schirmen, schützen, bewahren' B. 804.

Mordv. *v'el'-ks* 'das oben gelegene, oberes, Deckel' P. 1162, *al-ks* 'das unten gelegene; Lager, Bett' P. 12, *jutks* 'zwischen' P. 142 contain the stems *vele-, alo-, jutko*. We may be therefore permitted to separate *-ks* from *troks, turks* 'quer-durch, über-hin' P. 1149 and to identify this stem *tro-, tur-* with Av. *tarō, tarē* 'durch-hin, über-hin' B. 641. This element, 'prepositional,' I found in Wogul, too: *tar-* 'durch' UngJahrb. 10.386.

Mordv. *v'es'e, v'es'i* 'ganz, all' P. 1271 from Old-Pers. *visa-, viθa-* 'all' B. 1457.

A more difficult case is that of Mordv. *tuvo*, identified with Finn. *sika* 'Schwein' P. 1169. As Syrjen *porś*, Wotyak *parś* are loan-words from Aryan sources, Uotila, Syrjänische Chrestomathie, p. 138, one would like to find for *tuva, sika* an Aryan counterpart. Should it be Skr. *sūka-rá* 'Eber', OE. *sugu* 'Sau', W. Schulze, Kl.Schr. 75?

4. The name of the Wolga in Mordvin is *ray, rav, ravo* P. 785. Its identification with *Pā* is an obvious and a usual one, cf. E. Kuhn, KZ. 28.214; Geiger, KZ. 28.294. Mordv.

-*u*-, -*v*- has developed from an older -*η*-, as in *toη* : *tov* P. 1145, *pongo* : *pov* P. 708, *loη* : *lov* P. 415. So we are allowed to construct an older **raηa*, and this would not be far removed from the traditional Av. reading *raηha*- B. 1510.

5. A phonetical change from -*rt*- into -*š*- is found in Mordvin in an example, which seems certain¹: Tsheremis *kürtn'ö* 'iron' is Mordv. *kšn'i* P. 321, Uotila, Syrj. Chrest., p. 93. This change is common to Mordvin and the Av. language when e.g. we compare the traditional *maša*-, *mašya*- B. 1148, 1164 with *marata*-, *marta*-. Perhaps this word could be found in Mordvin. The indigenous name of the Tsheremis people, *mari*, and that of the *Merja*, closely related to the *Mari* (cf. Vasmer, *Merja und Tscheremissen*, Berlin 1935), has been derived from Skr. *márya*-, or, of course, the Iranian version of that word. So one feels tempted to derive the name of the *Mokša* from the Iranian word, mentioned before. -*k*- would be inserted, as in Mordv. *akša* in the Mokša-dialect, compared with Erz'a-Mordvin *ašo*, P. 40, Tscheremis *ošo* 'weiss, rein' (the identification of this word with that most important Iranian philosophical term *aša* B. 229 is, however, not evident) or in Erz'a-Mordvin *ukštor*, compared with Mokša-Mordvin *uštôr* 'Ahorn' P. 1178 (which reminds again of Indo-European words).²

6. All these suggestions do not touch that most complex question: which Aryan language gave these loan-words to the Mordvin dialects? In a Mordv. riddle: *udalo s'aηgo, ik'el'e uro . . .* 'hinten eine Heugabel, vorne ein Pfriemen' Paasonen, *Proben I*, 2, 63 nr. 335 we meet two words which have every appearance of being Indian in origin. So looks *s'ed* 'Brücke, Bodenbrett' P. 845. The form of *čuž* 'Gerste' P. 1071 reminds us of Šughni *čušč* Sköld, *Materialien zu den iranischen Pamirsprachen*, p. 156, nr. 289, or *jažams* 'mahlen,

¹ Mokša *kšr ctapa*, Erz'a *štapo, štrapo* P. 347, 1059 is not to be compared as *t* or *tr* is preserved there.

² As we do not know anything of phonetical linguistic geography I mention that in Latvian -*k*- is inserted, e.g. in *apakša*, compared with Lithuanian *apača*, W. Schulze, *Kl. Schriften* 74.

zermalmen', Finn. *jauhaa*; *jauhot* 'Mehl' P. 110 of Šughni *joudž* 'Mehl' Sköld, p. 164, nr. 372. The differences in time and space are considerable, and the possibility of sheer coincidence¹ must be envisaged, as in the case of Mordvin *putoms* 'setzen, legen, stellen; bestimmen; einsetzen' P. 770 = English *put*!

¹ Not a coincidence, but a loan is, however, Latvian *leja* 'Tal' and Mordvin *lej* 'Fluss, Bach; Schlucht' P. 377, in which direction I am not quite sure.

THE ZERO NEGATIVE IN DRAVIDIAN

By ALFRED MASTER

I. GENERAL

NINETY years have passed since Gundert and Caldwell first discussed the origin of the Dravidian Zero Negative as it is now called and the problem remains unsolved. The approach solely through the Historical and Comparative methods have failed, the last noteworthy attempt being that of Jules Bloch, who made a synchronic analysis of this negative in some of the non-literary languages, which led him to the conclusion that there was originally a negative suffix *-a-*, perhaps preceded by a laryngeal or similar type of consonant. If this theory is rejected, there still remains the approach by way of General Grammar.

General, Universal, or Philosophical Grammar is described by Sweet as that concerned with the general principles, which underlie the grammatical phenomena of all languages. The description does not define 'grammar' or 'grammatical', but Sweet's examples—reduplication, NEG § 6, and word order, HOL p. 6—involve morphological and syntactical phenomena and in NEG § 48 he considers the most general classification according to grammatical categories to be into words, word-groups and sentences.

L. Hjelmslev, PGG 171, distinguishes three kinds of grammatical categories, those of semantemes, those of morphemes and the functional categories or those which concern the interrelations of semantemes with morphemes. About General Grammar he writes 'La grammaire générale est une science nouvelle. Elle n'a encore ni principe constant ni méthode assurée. Une théorie grammaticale est encore inexistante'.

E. A. Sonnenschein wrote 'The Soul of Grammar' to show that languages of one group could possess a common syntax, regarded both synchronically and diachronically.

He feels, however, that any system of universal grammar would be too abstract for practical purposes (p. vi). He does not, however, propose any 'system' of common syntax.

O. Jespersen, POG p. 56, has three classes of categories, morphological, syntactical and notional, dealing with form, function and the extra-lingual idea. Only the notional class, in his opinion, approximates the universal. The notional categories are not generally accepted as categories of grammar. But 'it will be the grammarian's task . . . to investigate the relation between the notional and the syntactic¹ categories'. And though 'we must not expect to arrive at a "universal grammar" in the sense of the old philosophical grammarians', Jespersen, in his *Philosophy of Grammar* attempts a systematic review of the chief notional categories in so far as they find grammatical expression.

Grammar may, for our present purpose, be restricted to the limited field of Sweet or Hjelmslev, but its boundaries are elastic and discussions of form divorced from function are likely to prove meaningless. Further, although written forms are, because of their permanence, easier to handle than spoken forms and forms relate essentially to things seen rather than to things heard, characteristics of the spoken word, not generally reproduced, because difficult to reproduce in writing, should not be excluded from grammar. But, in selecting such characteristics, it must be borne in mind that grammar is built up out of rules, not out of exceptions, out of the permanent not out of the transitory. Stress and intonation may be as much elements of a word, as its phonemes, and if all three are removed, there remains no form. But the two first elements are more liable to change than the third, and it is often assumed that neither of them can be of grammatical importance.

The classification, conscious or unconscious, of which grammar consists depends on function and function on the meaning intended (notion). Function is determined by

¹ I.e. grammatical; see *id.* pp. 55-7.

context, whether of adjacent words or circumstances (external) or by something within the word (internal). For example, 'I give you my hand' (noun). 'Hand me that umbrella' (verb). The two meanings of *hand* are differentiated by sentence-context. If when riding with a friend in the country, you say 'Duck' in a surprised tone, he will expect to see duck flying. If you use a peremptory tone, he will expect a low bridge or overhanging branch. If he repeats the word as 'Why should I duck?' he will have classified it as a verb.

Jespersen, POG 56, gives an example of the English preterite with seven forms and five notions. One of the forms (*was*) is lexical, not grammatical, and he excludes the historic present, presumably as notional. Here we meet the difficulty mentioned above. Can syntax exclude notions, such as are shown in the phrases 'I wish we knew', 'it is time you went to bed', 'men were deceivers ever'? Accidence may confine itself to asserting that the basic notion of the preterite is past time, but this is only a part of the truth.

In view of these difficulties it is not surprising that rigid adherence to analysis of phonemic forms only is frequently unproductive.

II. NEGATION

Jespersen devotes a chapter (id. XXIV) to the consideration of Negation. He confines himself, however, almost wholly to the negative particle (free or incorporated) or adverb. He thus follows the traditional Indo-European idea of Negation. A. Meillet, LIE p. 370-1, writes 'La phrase négative n'est marquée par rien autre que par la négation **ne* . . . ou par *mē* dans les prohibitions'. The IE negative is then primarily of lexicographical interest and only of limited grammatical (syntactical) interest. We are so familiar with the use of a separate particle to express negation that its artificiality is unrecognized. It is of the greatest convenience in writing, but in speech it is often avoided. Jespersen, POG 337, cites as notional negatives 'Am I my brother's keeper? Me tell a lie! I'm dashed if I know. Catch me

going there. Much he knew of it. When the devil was well, the devil a monk was he'. These are not merely implied negatives as in 'I wish he had money enough', id. p. 265. Besides these examples there are some lexical negatives such as zero, blob, duck (cricket), love (tennis), vacuum, void, without. (Chamber's Twentieth Century Dictionary.) There are also ironical phrases and an important class, which may be termed here the Neutraliser, as 'Stop talking. He failed to come. John lacks sense. Greek, *élathe kléptōn* "he stole unobserved"'. These are often of syntactical importance. 'He stopped here talking' must be distinguished from 'He stopped talking here'. Lexical negatives may occur in word-formations, e.g. *love set*, which is no less negative than *no-ball* and, of course, *Zero Negative*.

III. THE DRAVIDIAN NEGATIVE

There are four types: (i) the Neutraliser, (ii) the *-ā* suffix and *-ā-* infix, (iii) the Zero Negative, (iv) the negative particle. No. (iv) is found in the non-literary languages Kurux, Goṇḍi and Brāhūi. In the first two it arose under the influence of the neighbouring Indo-Aryan languages and in the third it is the borrowed Iranian *na*. It is, therefore, not Dravidian in origin.

No. (i), the Neutraliser type, has developed two special forms, which are now used colloquially in the literary languages as standard negatives. They are the impersonal or neuter verb-forms **illa* and **alla* 'is not, does not exist' and 'is not' (the copula). Kan(arese) *ī ūrinalli marav' illa* 'There is no tree in this village', but *ī maravu doḍḍadu alla* 'This tree is not large'. *Il* 'stop, cease' is a doublet of *nil* 'stop, stand', and *al* means 'fail, be weary', as in Tam. *alku*, Kan. *alasu*, Tel. *alavu*. This may be compared with Jespersen's tripartition of 'all, some, none' (i.e. positive, part-negative, full negative), POG 324, and the doctrine of 'Opposition' (based on the logical theory of contrary and contradictory terms) with its distinctions of 'scale' and 'cut'.

Type (ii) is used only in Tamil and Malayālam. It is derived

from the interrogative *-ā*, expressing a notional negative. The suffix *-ā* is still used to express interrogation in Tam., Mal., Tel. and Kan. It is one of three emphatic suffixes, *-ā*, *-ō* and *-ē*, which the grammarians now regard as expressing question, doubt and emphatic affirmation respectively. The suffix is usually appended to the last word of the sentence, but in Tamil it may be affixed to any word in the sentence (Arden, GCT § 380) as in *Nī tān-ā kucavan* 'Art thou indeed a potter?' or 'Thou (thy)self-indeed potter?' or *Nī kucavan-ā* 'Art thou a potter (not a farmer)?' In these examples the suffix retains its function as an emphatic. In Kanarese there is a similar idiom.

In the Tamil grammar *Tolkāppiyam*, which is probably the earliest specimen of Dravidian literature known, the three particles are classed as interrogative (EĪ. 32), and it is specifically stated that the interrogative verb denoting emphasis may express negation (Col. 244) and that the emphatics *-um*¹ and *-ō* are also used as negatives (Col. 255, 256). Tam. *nī nāpp-iṅ vālv-āl-ō* 'Can she live, when you desert her?' or 'You leave-if lives she?' (Kali tokai I. 5). Kan. *takkud-e berasalke gḥṛtam-um-am tailam-um-am* 'Is it fitting to mix gḥī and sesamum-oil?' Here *-e* is a shortened form of *-ē* (from Naya Sena, A.D. 1115). *Takkude* for *takkudu* is the only sign of the negative. The order of the words, which is the same as in English, except for the conjunction suffixes (somewhat similar to the Sanskrit *ca . . . ca*) appears to be irrelevant.

The *Tolkāppiyam* makes little use of the *-ā* negative, but it is well established in modern Tamil and Malayālam. The impersonal verb Tam. *vēṅṅām*, O. Tam. *vēṅṅā*, Mal. *vēṅṅā* 'is not wanted, must not', has its positive forms Tam. *vēṅṅum*, Mal. *vēṅam* (coll. Tam. *vēṅum*, negative *vēṅām*). Tam. *pōka vēṅṅām* means 'do not go' (cf. Eng. 'must you go?' a less abrupt form of 'do not go'). *Vēṅṅum* is composed

¹ *-um* is no longer used in this way, but has been appropriated (also in Kan. and Tel.) to serve as the conjunction *and*, retaining its function as an emphatic in certain contexts.

of *vēl* 'desire', and the extension *-tum* (often found as *-tu*). Probably **vēṅtu* preceded *vēṅtum*, just as *bēl-kum* and *bēl-ku* with the same meaning and *bēd-a* the negative are found in O. Kan. Further extended *vēṅt-ā-tu* in O. Tam. means 'it does not desire' and still further extended *vēṅt-ā-t-ān* 'he does not desire'. Tam. *kūtum*, 'it is possible,' has its only negative *kūtātu*, but Mal. has *kūtā*. Kan. and Tel., however, have *kūdadu* with the short *a*, which suggests (erroneously) that *-a-* is just *-ā-* shortened.

In Tamil the *-ā* negative is most conspicuous in the 3rd person sg. neuter forms and derivatives and is probably confined to them. The interrogative *-ā* used notionally as a negative is suffixed to any word. In Malayālam it has become a regular negative infix. *Para-y-ā-y-unnu* 'do not say' (all genders, persons and numbers), *para-y-ā-ñṅū* 'did not say', *para-y-ā* 'will not say', display the typical Dravidian method of avoiding a hiatus, when it is necessary to preserve the integrity of the word or particle. These forms are now obsolescent and are being replaced by periphrases with *illa*, which are probably of very old standing in the vulgar speech.

Type (iii) the Zero Negative is a morpheme of the verb finite with no tense infix, a zero-tense morpheme. The old Tamil tense-system, according to the Tolkāppiyam, admits only three tenses.¹ No tense infix is mentioned, but the terminations of the 3rd pl. n. are said to be *a*, *ā* and *va*, of which *ā* is understood to denote the negative (Col. 216). Old Kanarese agrees generally with Tamil and Telugu with positive present *kēl-v-en* (*ṃ* before initial consonants) 'I hear, I shall hear', *kēl-gu(ṃ)* 'will hear' (all genders and both numbers), *kēl-d-en* 'I heard', Negative pres., past and fut. *kēl-en* 'I (do) not hear'. The personal endings² are identical for the positive and negative, but the impersonal or neuter endings, both sg. and pl. appear in the positive with *-u-* (*-udu*, *-uvu*) and in the negative with *-a-* (*-adu*, *-avu*). In the

¹ Present, past and future. Col. 199.

² Sg. and pl., including masc., fem. in the 3rd pers. sg. and an epicene masc., fem. form in the 3rd pers. pl.

non-literate Tuḍa (Toda) *āḍu* 'dance', gives *āḍ-k-en* 'I dance' and *āḍ-eni* 'I do not dance'. It is impossible to suppose that verb-stems like *kēl* 'hear' or *āḍu* 'dance' had an original negative meaning, and in fact there are a number of positive forms which use the bare stem.

In O.Tam. and O.Kan. there are two types of stems, one ending in a consonant, which must be a continuant and the other ending in a vowel, either long (with an alternant ending in *y*) or short, often representing the glide or whispered vowel which, in Dravidian, must follow a final occlusive. The 2nd sg. impv. shows *uṅ* 'eat', *pōgu* 'go', *oli* 'die', *pode* 'cover', *kā(y)* 'protect'. There is a verb-noun ending in *-a* used with certain auxiliary verbs, as *āḍa bēku*, *āḍa valenu*, *āṭa vēṅṭum* 'you must play' (Kan., Tel., Tam.). Also an absolutive *āḍi* 'having played', common to the three languages. Tam., Mal. *var-um*, Tel. *var-unu* 'he, etc., will come'. Tel. *valenu* 'it is necessary', *āḍenu* 'he played' (contrast Tam. *āṭēṅ*, Kan. *āḍenu* 'I do not play'). None of these forms have tense-stems.

In adding the personal and impersonal terminations, which always begin with a vowel, final *-u* of the stem is elided and other vowels assume a glide *-y*. This being understood, the negative paradigms can be exemplified as follows.

	Kan.	Tel.	Tam.		Kan.	Tel.	Tam.
1 Sg.	<i>āḍenu</i>	<i>āḍanu</i>	<i>āṭēṅ</i>	Impv.	<i>nil</i>	<i>āḍaku</i>	<i>āṭē, āṭātal</i> , etc.
2	<i>e</i>	<i>avu</i>	<i>āy</i>				
3 m.	<i>anu</i>	<i>aḍu</i>	<i>āṅ</i>	Vb-nn	<i>nil</i>	<i>ami</i>	<i>āmai</i>
f.	<i>aḷu</i>	<i>adu</i>	<i>āḷ</i>				
n.	<i>adu</i>	<i>adu</i>	<i>ātu</i>	Absol.	<i>āḍade</i>	<i>aka</i>	<i>ātu</i> <i>āmal</i>
1 Pl.	<i>evu</i>	<i>amu</i>	<i>ām, ēm</i>	Rel.	<i>ada</i>	<i>ani</i>	<i>āta</i>
2	<i>ari</i>	<i>aru</i>	<i>īr</i>	part.			
3 m.f.	<i>aru</i>	<i>aru</i>	<i>ār</i>				
n.	<i>avu</i>	<i>avu</i>	<i>ā</i>				

The above morphemes, which are modern, differ little from the old. But their forms are not unique. O.Kan. has *oḷ-en* 'I am', *ballen* 'I can', mod. *ball-enu*; Kurux (a language once of the Kanarese group) has *bal-d-an* 'I cannot' (with present-tense infix); its companion language Mälto has

goyin 'I reap', Kur. *xoy-d-an*, but Kan. *koyenu* (O.Kan. *koyen*) 'I do not reap'.

Tel. has *kalanu* 'I am', with a relative participle *kala* used as a suffix meaning 'possessed of', like the Kan. *ulla*, which is the rel. part. of **ul* the root of *ol-en* 'I am'.

O.Tamil has a form of the imperative identical with the zero negative—*viṭ-āy* 'leave thou', *kān-āy* 'thou wilt not see', *kān-īr* 'see ye', *kān-īr* 'you do not see'; *eḷ-ā* 'having risen', *ceyy-ā* 'not doing' (MLT pp. 121-3-9, 131). Vinson observes 'Il paraît que cette forme pouvait quelquefois ne comporter aucune idée négative'. Denominatives used in O.Tamil and O.Kanarese have paradigms similar to those of the negative—Tam. *kōn-ēn* 'I am a king, etc.', O.Kan. *per-en*¹ 'I am a stranger, etc.' In the same category we may place the predicative form of the adjective—Tam. *nān nall-avan* 'I am a good man', fem. *-aval*, neu. *-atu*, etc. Kan. *nānu kiri-y-anu* 'I am a young man', fem. *-aḷu*, n. *kiridu*, etc., or *-avanu*, *-avaḷu*, *-adu*; Te. *Nēnu manci-vādu* 'I am a good man', fem., neu., *mancidi*, etc. Here the person of the subject does not affect the predicate. But in Telugu the ending varies with the person of a noun-predicate. For example, *nēnu biḍḍanu* 'I am a child', *nī biḍḍavu* 'thou art a child', *mēmu biḍḍalamu* 'we are children', *mīru biḍḍalaru* 'you are children'. These predicates are in the same form as the negative and are in fact denominatives, although never classified as such. The forms of the third person do not conform, being *vādu biḍḍa* 'he is a child', and *vāru biḍḍalu* 'they are children'. In *biḍḍalu* the suffix *-lu* denotes the plural, and being used in plural predicates makes them differ to that extent from the zero negative.

The presence of *-e-* instead of *-a-* in the 1st sg. and pl. of the Kan. paradigm and of *-ē-* instead of *-ā-* in the same persons of the Tamil paradigm is difficult to explain on the hypothesis that *ā* shortened to *a* represents a pre-Dravidic

¹ This ending is usually given as *-em*, the shape taken before consonants in the old texts. *-en*, which is used before vowels, is closer to the Tam. form and not inconsistent with Tel. *druta n*.

negative particle. The 2nd pers. sg. in the Kan. paradigm, which ends in *-e* is, however, not in question, as the ending has replaced O.Kan. *-ay*. But the ending *-īr* of the 2nd pl. of the Tamil paradigm cannot be so explained. There has undoubtedly been some analogical levelling. The common negative verbs Kan. *ārenu* 'I cannot'; *ollenu* 'I will not', have their 2nd sg. *āri*, *āre*; *olle*, *olli* and 2nd pl. *āriri*, *olliri* (not *-ari*). The Tamil endings *-ēn*, *-ēm*, *-īr* can hardly be innovations. Moreover, although the Tam. negative paradigm adheres rigidly to long vowels for the endings, the positive paradigm has many alternative endings, including 1st sg. *-ēn*, *-en*, *an*, pl. *-ām*, *-am*, *ēm*, *-em*; 2nd sg. *-āy*, *-ai*, *-i*, pl. *īr*, *-īr*; 3rd sg. masc. *-ān*, *an*, fem. *-āl*, *-al*; pl. epicene *-ār*, *-ar* (MLT p. 113). There was, therefore, no question in O.Tam. of reserving one particular form for the negative paradigm. The chief reason why *kōṇēṇ* 'I am a king' is not now interpreted as a negative on the analogy of *ātēṇ* 'I do not play', is that it has become a formula, and *kōṇ* is not a verb-root. The same reason cannot be assigned for *pūṇēṇ* 'I possess an ornament'. *Pūṇ* is both noun and verb-root so *pūṇēṇ* also means 'I do not adorn'. Here the distinction is made by context. *Perum pūṇēṇ* 'I have a large ornament' (MLT 105) would be meaningless, if *pūṇēṇ* were taken as a negative verb.

IV. PREVIOUS THEORIES

The conclusions now reached may be briefly summarized as follows: (i) The negative is frequently expressed notionally by simple¹ interrogatives. (ii) In Tam. and Mal. only has the emphatic-interrogative particle *ā* become a negative suffix or infix. (iii) Otherwise, there is no clear sign of a negative particle. It is impossible to distinguish between positive and negative in many isolated words.² Previous theories have

¹ Simple, that is, with no interrogative pronoun. Idioms, like Eng. 'Who knows?' for 'I do not know', are used, but are not relevant for this part of the argument.

² This situation occurs elsewhere, e.g. Latin *indictus* 'proclaimed' or 'unsaid'; *insuetus* 'accustomed' or 'unaccustomed'.

not succeeded in reconciling all these facts. Caldwell believed that *-a-* derived perhaps, as Gundert suggested, from the interrogative *ā* and subject to elision, was the sign of the negative. Kittel, the Kanarese grammarian and lexicographer, accepted an elidable *-a-*, but connected it with the *-a* terminating the verb-noun or infinitive. Thus, *āda* 'playing, to play' passed through the meanings of 'about to play, not yet having played' to 'not playing'. R. Narasimhacarya in 1934, reviving an idea rejected by Caldwell, thought *al* to be the original negative particle, from which *-a* is derived. Neither of these two later hypotheses constitute any advance on that of Caldwell, who had already disproved the identification as a negative of the Tamil *-min* by Beschi and of the Telugu *-ku* by Stevenson.

J. Bloch, however, in BSL No. 107 p. 55 (1935) propounded a new hypothesis on some fresh material, which cannot be so easily dismissed. He accepts Caldwell's theory that there is a negative particle *-a*, but suggests that it was preceded prehistorically by an ill-determined consonantal element, possibly guttural, laryngeal or glottal. Generally speaking, an hypothesis which assumes a persistent tendency of a negative particle to eradicate itself, is logically obnoxious. The general tendency is to enlarge and strengthen negatives. Thus, IE **ne* becomes *nec* in Latin *neg-ligo*, *nā*, *not*, *no*, *nicht*, *ne . . . jamais*, *ne . . . pas*, *nathī*, *nahim*; and in Indonesian **di* becomes *dia*, *endiaq*, *enjaq*, *janan*, *dia-hue*. The analogies of *pas*, *jamais*, etc., in French phrases, such as *pas un mot* 'not a word' and English 'more am I' are not valid, because the enlargements precede the discarding of the historic negative. The use, moreover, has met with a very limited generalisation. The contradictory meanings of French *plus* in *plus de bruit* 'no more noise' and in *plus de bruit que de mal* 'more noise than hurt' belong to different linguistic stages and are tonally dissimilar. It is, indeed, ungrammatical to say 'Il y avait plus de bruit' with a negative sense. An argument, therefore, that the negative has disappeared, must first concentrate upon establishing the facts.

Bloch bases the first part of his argument upon the supposition that Tel. *ceyy-anu*, *cēy-anu* (transliterated by him as *seyanu*) 'I do not do', has *-a-* intercalated between the stem and the personal ending.¹ This *-a* he connects with Tam. *-ā-* in *ceyyāta* (translit. *seyyāda*) 'without doing', *ceyyāmal*, *ceyyāmai* (*seyyāmal*, *seyyāmei*) 'impossibility of doing', as compared with *ceytamai* 'action'. But all these forms can be accounted for as secondaries of *ceyyā* 'it does not do', which Bloch also cites. He thinks that the only difficulty standing in the way of Caldwell's theory that, where the negative has apparently no special sign, *-a-* has been elided, can be removed by supposing contraction (syncope).

The second part of Bloch's argument is based on illustrations from the non-literary Dravidian languages. He gives examples from Brāhūi—*bisik* 'he bakes', *bispak* 'he does not bake'; *tixin(a)* 'we place', *tixpan(a)* 'we do not place', etc. Here the negative is apparently represented by *-pa-*. It is carried through all the tenses, but does not remain the same. Bloch changes the verb-roots for the past tense, but, if retained, they would be *bisē* 'he baked', *bistau* 'he did not bake' (BL §§ 219, 243), and *tixā* 'he placed' (§ 224), *tixtau* 'he did not place' (§ 247). Here the negative appears to be *-ta-*. In the literary languages *-p-* and *-t-* are inflexions of the present-future and the past respectively. 'It seems, therefore, that if Brahui has inserted a tense-sign, the fundamental opposition between the negative sense and the event undefined in time continues to be dominant.' The assertion that there is an opposition between negative and aorist may be questioned and there is yet no explanation why the literary negative verbs should be tenseless and the positive verbs tensed, while the opposite is the case in Brahui.

In Gōṇḍī Bloch finds the *-a* once more, but in the *-o* grade. The forms he quotes do not show any clear negative *-o* *Guhōn*, *guhvī*, *guhō(l)* 'I do not take, etc.' are not distin-

¹ The oldest forms of the personal pronouns appear to have been *ān* 'I', *ī* 'thou', *avan*, *avaḷ*, *adu* 'he, she, it', *ām* 'we', *īr* 'you', *avar*, *avu* 'they'.

guished by *ō* from *guhtōnā*, *guhtōni*, *guhtōl* or *guhtā* 'I took, etc.' or from *guhtātōnā* (Bloch's *-tona*), *guhtātōnī* (*-toni*), *guhtātōl* (*-tol*) or *guhtātā* 'I take, etc.' It is also uncertain how far these forms are standard phonetic or grammatical forms. The above examples are from the Betul district. The extract in LSI IV 499 also comes from the Betul district. In it are *mattul* 'they were', *ittul* 'he said', *kittul* 'he made', *sītul* 'he gave', and negative *halle*, *sēvōl* 'he gave not'. In Akola 501 occurs *sēvur hille*, 'he gave not'.

In Bhīlī *vatten* 'he comes', *varen* 'he does not come' the *-a* is said to occur in the *-e* grade, but *e* occurs in both words, *-en* probably being descended from *ivan(d)* 'he' (cf. LSI IV 566).

The Kui and Kuvi negatives are even more difficult to analyse. Bloch interprets Winfield's 'negative break'¹ as a vestigial *-a*. Winfield taking the example *vesēnju* 'he will not speak' explains that between the *s* and *en* 'there is a lack of fusion which causes a not very perceptible break in pronunciation and a somewhat staccato effect upon the vowel *e*' in *en*. Friend-Pereira² recognizes 'the checked or stopped sound of the final aspirate' in *tīn'enu* 'I do not eat', Winfield's *tīnēnu*, and also, unlike Winfield, in *vēs'ī* 'I speak' for his *vesi*. Both, under Caldwell's influence, accept a negative *-a*, but Winfield does not hesitate in certain contexts, to assume an affirmative transitional particle *-a*, negative *-ara* (pp. 64, 101). Thus *īra ānu eariki sīi* 'I will give this to them' ('This I to-them give'), but *īra ānu nīngi sī-a-i* 'This I to-you give'. Similarly *sī-ara-ēnu* and *sī-ēnu* 'I do not give'. *Sī-aja-ēnu* is commonly used for the former. There are obvious objections to this method of treatment. If the 'negative break' represents *-a*, then *sīajaēnu* stands for *sīajaaenu*. It is more probable that *-araēnu* is parallel to Kan. *ārenu* and means 'cannot', while *ajaēnu* is a similar expression, at present unidentifiable.³ Lingum Letchmajee

¹ *KG.*, pp. 62-3.

² *GKL.*, p. 3.

³ Kui *j* sometimes = Drav. *r* as *ianju* = O.Tel. *ivanru* 'he' *paji* 'pig', Tam. *paṇri*, *mūnji* 'three', O.Tel. *mūnru*.

(IGK) does not notice any 'negative break', shows no knowledge of Caldwell's theory and does not postulate a negative particle. He merely says that in the negative form of the verb the personal terminations are suffixed to the root. Further the vowels *-a* and *-ā* occur so often in verbs both medially and finally, where there is no question of a negative, that they cannot be regarded as negative particles.

Bloch's conclusion that in Kui *-a-* cannot be an original form of a negative particle is justified, but not his hypothesis, based on the 'negative break', that *-a-* was prehistorically preceded by a perceptible laryngeal or glottal element. For Kui is the only language for which a 'negative break' has been suggested and it is difficult to understand why an element of such importance should have been missed by Frye and his successors. Moreover, the language was first recorded only in 1851, that is, fifteen hundred years or more after the earliest Dravidian records, which show no signs of it. Non-literary languages may, no doubt, retain very ancient elements, but their very lack of historicity makes it impossible to prove antiquity, unless those very elements occur in the history of a literary language.

IV. PROPOSED EXPLANATION

The explanation here offered was suggested by P. S. Subrahmanya Sastri in his 'Comparative Grammar of the Tamil Language', but not elaborated. The germ of it lies in a letter from Gundert to Caldwell (CGD 476). 'I believe the (remote demonstrative) pronoun *a* forms the (particle of negation in the) negative verb; just as this *a* in its interjectional (syntactic) form has the signification of a question. From the meaning of a question comes the meaning of negation. (Tam.) *adu* (old transcription of *atu*) *varum-ā* "will it happen?" = "it will never happen." Caldwell is inclined to accept this view, but rightly rejects Gundert's further view that *al* in *alla* does not contain the negative meaning, which is to be found in the final *-a*.¹

¹ He shows (477) that *il* and *al* have the full force of negatives and compares Skt. *alam*, Finnish *älä*, Ostiak *ilä*, etc.

It is now suggested that the zero negative is in origin the non-thematic form of the positive present tense or, what was probably its earliest form, the incomplete aspect, differing in no way from it except in tone. This hypothesis is startling at first sight. Yet it is not unusual, particularly in Romance languages, to express an interrogative by the mere change in tone of a positive statement.¹ Two facts have been previously established. (i) The interrogative form is often used notionally to express a negative; (ii) the positive and negative forms of the incomplete aspect of the Dravidian verb are often indistinguishable in their recorded form, and there must have been some non-grammatical means of distinction.

It is then quite possible that at some early period, when it was desired to use a negation with a personal ending, an uninverted question was used with the appropriate tone. When there developed in Tamil, Telugu and Kanarese a present formed not from the bare verb-stem,² but from an enlarged stem plus the personal ending, the present or incomplete aspect dropped out of use as a positive paradigm.

The use of the tonal interrogative still exists. Arden does not record it for Tamil, but for Telugu he says: 'In common conversation the sign of a question is sometimes entirely

¹ French (Popular) *Ça va ?* 'How are you?' *Ça va* 'Not so bad'. *Ça va !* 'That will do! (Pâques d'Islande) *Ce n'est donc pas l'angélu ? demandai-je*. Here, contrary to the normal grammatical usage the inverted construction is used for a statement and the uninverted construction for a question. The mark of interrogation is not grammatical and is in fact a tone-sign. Portuguese *¿ És muito amigo dela ?* 'Thou art very fond of her?' (Frei Luís de Sousa.) Italian *È vero ?* 'Is it true?' (Marco Visconti).

² Telugu has *kott-uc-ānu* mod. *kott-ut-ānu* 'I beat' from the present verbal participle plus *ānu* or *kott-ut-unnānu*, the last part meaning 'I am'. Kanarese had first *māḍ-uv-en* 'I make', the pres. relative part. plus *ēn* shortened; then *māḍ-id-app-en*, the past part. plus *appen* 'I become', transformed in turn to *māḍidapen* and *māḍidāhen* or *-henu* and now *māḍutt-ēne*, the present verbal participle with the personal ending enlarged. The descendant of *māḍuven*, *māḍuvenu* is used as a future. Tamil has *aṭai-k-ir-ēṇ* 'I get', verb-stem plus connecting particle *-k-* (probably serving as the *-t-* or *-tt-* of the Tel.-Kan. verbal present part., cf. *urāi-kk-um* 'speaking' (Nāl. 73)) plus *ir-ēṇ* 'I am' (now obsolete). O.Tam. *-k-ir-ēṇ*. Tol. El. has *ir-ē*, *ir-ē* 'it is not'.

omitted and the question shown by the tone of the voice.'¹ Schulze says for Kuvi: 'The sign of a question is sometimes entirely omitted and the question is shown by the tone only.'² For Kurux, Hahn³ gives *ās erpā nū ra'as* 'Is he at home?' ('he house-in stays') with no interrogative particle. In Kanarese *māḍali*, etc., which is a 1st, 3rd sg. pl. imperative is used only as an interrogative in the first person 'am I to make, are we to make?' These sentences, however, have no negative implication. Tamil has a modern idiom, by which a negative is made more apparent by a preceding question. *Pakalilē tiruṭaṇ varuvāṇ-ā. Varavē māttāṇ.* 'In-daytime thief does-he-come? Come he-will-not.'⁴ This rhetorical question and answer has exactly the same force as an emphatic negative.

The hypothesis that the zero negative is merely an old positive form used interrogatively is satisfied also by the Brahui negative verb-forms with tense infixes, for interrogatives can be carried over to such forms without any difficulty. If *-ā* except at the end of words and *-a* in any position had no distinctive meaning, the frequent confusion which occurs between the short and long is of less importance. In Tamil where the particle *-ā* was identified at an early date with a negative meaning, the finite verb was affected, but the influence was not so strong as to convert for instance *ātēṇ* into **āt-ā-y-ēṇ* in the same way as it has produced Mal. *para-y-ā-y-unnu*.

The verb infinite in Tamil, however, gets its negative forms from the interrogative *-ā*, which is adopted as a negative particle. *Pōku* 'go' has its negative *pōk-ā* 'not going', which may be used as a finite verb, 'it does not' or 'they do not go', or as a participle, 'which do not go.' This form was extended by the neuter suffix *-tu* and used as a finite verb, participle or absolutive. Both forms are used also as verbal nouns, extended also by the suffixes *-mai* (= *mey* 'body') and *-mal*. The enlarged stem is used in participles

¹ PGT § 299 (3).² GKV 184.³ K+G 54.⁴ GCT 271.

such as *coll-āt-ār* 'those who do not speak', Kuṛ. 728, but rarely, the type *coll-ār* 'those who do not speak' or 'they do not speak' being more general. The prohibitive is expressed by *aṛka* added to the verb-root, as *urai-y-aṛka* 'do not speak'. Nāl. 71. Vinson, probably correctly, classifies this word as an optative formed from *al* meaning 'fail' or 'diminish' (MLT 130). Kurux *argā*, *argī* 'not, not yet' may have a similar origin. Another Tamil prohibitive is of the type *nill-āt-i* 'do not stay' (MLT 124) with the 2nd person ending *-i*.

The particle *-ā*, once so productive in Tamil and turned into a regular negative infix in Malayālam, is now being superseded by the periphrasis with *illa(i)* and *alla(i)*. The use of *il* and *al* dates from the very earliest times. They are more common than *-ā* and *-ātu*. The Tolkāppiyam uses *illai*, *ila-v-ē*, *iṅṛ-ē*, *aṅṛ-āl* and Kuṛaḷ and Nāḷati use *iṅṛu* and *aṅṛu* frequently with or without the emphatic for the full and qualified negatives respectively. They both use *i(l)latu*, *illātu*, like *iṅṛu* and *allatu* (not **allātu*) meaning 'except' (cf. Kan. *allade*). There are variants *allar*, *allār*, *allavar*, *allātavar* 'they are not', *ilar* and *illār* 'the destitute', and there even occurs in Kuṛaḷ *illāl* 'housewife' and *ilāl* 'she who is destitute'. The confusion no doubt is due to the double meaning of the root *il* 'to stay (dwell)' producing *il* 'house' and 'to stop (cease)'. Both *il* and *al* 'have been' affected by the *-ā* particle.

The Kan. verb infinite does not appear to have been so affected. There is one word *bēḍa* 'it is not wanted, do not' which might support such a view, but there is no reason to discard the current belief that it is an abbreviation of *bēḍadu*.

Telugu has not sufficient history to justify much inference. The negatives *vaddu* (*valadu*), *lēdu*, *kādu*, *rādu*, *kūḍadu* all end in *-du*. The *-ku* of the prohibitive is probably the pres.-fut. suffix, so that *āḍa-ku* 'you will play' ? means 'do not play'. The relative participle *āḍa-ni* seems parallel to the pronominal genitives *vā-ni*, *dā-ni*, etc. The verb-noun *āḍami* is literary and may be due to Tamil influence. As in Kanarese *-ā* is

not used as a negative particle. The long vowels in *lēdu*, *kādu* and *rādu* are due to epenthesis from **illadu*, **akadu*, *(*v*)*aradu*.

Tamil and Kanarese use *illa* and *alla* for the full and qualified negatives respectively. O.Tam. *inru*, *anru* from **iltu*, **altu*, O.Kan. *altu* (Tu. *attu*). O.Tam. *inri* 'without' has an older form *inru*, Tol. El. 238, which actually occurs in Kuraḷ. Telugu has *illa* (rare) and *lēdu*, but not *alla* except in the compound *all-ādu* 'be in want of'. Instead *kādu* is used, which is not a Neutraliser like *lēdu*. **Alladu* would have become **lādu* by regular development, but *rādu* 'must not' seems to have extruded it. Kurux has a special distinction: *mal-d-as* 'he is not (a chief)', *mal-y-as* 'he is not (that chief)', *mal-k-as* 'he is not (at home)' according to F. Hahn, but LSI (IV 426 ff.) shows that *malyas* and *malkas* are alternants.

The zero negatives naturally have no such distinction. If their development is due to tone, parallels can be found in two African languages. Pongouée (Mpongwe) according to Le berre has three negatives: (1) Particles *pa*, *re*, *ro*, (2) particular verbal forms (probably Neutralisers), (3) 'seul ton de voix'. An example of the latter is *mi* (*n*)*kamba* 'I do' or 'do not speak', according to the tone. This is confirmed by 'a Missionary' in Mpongwe Grammar 1879, who gives as examples *e be kēnda* 'he will go'; *e be kēnda* 'he will not go', where the thickened *ē* represents only a change of tone. In Ga, according to M. B. Wallace, length and tone distinguish the negative. But possibly length is of minor importance. The tone pattern of *wāle* 'we know' is [ː] and of *wāle* 'we do not know' [ː]; *mī le* [ː] 'I know'; *mī le* [ː] 'I do not know'. In Yuruba, although there is phonemic differentiation between positive and negative, there is also tonal differentiation, either signification having its own particular set of patterns. This may be regarded as a transition stage between a purely tonal differentiation and one which is purely phonemic.¹

¹ My grateful acknowledgements are due to Professor I. Ward and Dr. M. Guthrie, of the African Dept., S.O.A.S., for guidance.

ENVOI

After I had read the paper upon which the present article is based at a meeting of our Society a colleague drew my attention to an article in BSL No. 124 pp. 1-18 by J. Vendryès entitled 'Comparaison en Linguistique'. In it he refers also to general grammar and the inadvisability of allowing oneself to be misled by linguistic relationship. Phoneticians have been accused of a priorism, because they alone of linguists have evolved a general doctrine. Grammont did not seek to hide the fact that he formulated his laws before he collected his examples. But the procedure of the phoneticians, which is based upon physiological inductions, is not open to researchers into grammatical categories. They can only elucidate facts by history. *A priori* systematization is always a present danger. We speak of Tense, Number, Voice and Gender as if they were universal entities, but the discussion on aspect, now forty years old, is not yet closed.

(Then he goes on to say.) Negation is a very interesting case. In principle nothing is clearer. It is a dart thrown at an affirmation to annul it. However complicated an affirmation may be, it can be annulled by a negative particle. But this is not a general fact. Some languages have no negative particle—as some African languages, in which negation is expressed by a tonality different from affirmation. He refers to Jules Bloch's article on the Dravidian negative. 'On nie au moyen d'un verbe exprimant l'inexistence, l'impossibilité, l'interdiction, ou le doute et ce verbe est ajouté à la phrase.' (This, as has been shown above, is not the whole truth. He continues.) In some languages you cannot mechanically deny every affirmation. Some Bantu languages (especially Swahili) employ a special negative different from the positive or use a kind of auxiliary (Swa. *sikuwa* I have not been). An example is also given from Japanese. Greek often changes the tense when using the negative.

So negation, which appears so simple, is really full of complication and obscurity.

Vendryès then points out the necessity for bringing out in a language class distinctions, social functions, literary styles and poetic creations. He concludes by emphasizing that vocabulary is of no less importance than grammar or phonetics and appeals for history to take her place once more in a universal comparative science of linguistics, the aim being not to classify in linguistic families, but to advance the knowledge of human psychology.

ABBREVIATIONS

- BL . The Brahui Language, Pt. I, Denys Bray.
 CGD . Comparative Grammar of the Dravidian Languages, Robert Caldwell, 3rd ed.
 GCT . Progressive Grammar of Common Tamil, A. H. Arden, 4th ed.
 GKL . Grammar of the Kūi Language, J. E. Friend-Pereira.
 GKV . Grammar of the Kuvi Language, F. V. P. Schulze.
 HOL . The History of Language, Henry Sweet.
 IGK . Introduction to the Grammar of the Kui or Kandh Language, Lingum Letchmajee.
 KG . A Grammar of the Kui Language, W. W. Winfield.
 KrG . Kurukh Grammar, F. Hahn.
 KRM . Kavirājamārgga, Nṛpatuṅga, a ninth century Kanarese work.
 Kur. . Kuraḷ (The sacred Kurraḷ, G. U. Pope).
 LIE . Introduction à l'étude comparative des langues indo-européennes Huitième édition refondue, A. Meillet.
 LSI . Linguistic Survey of India.
 MLT . Manuel de la langue tamoule, J. Vinson.
 Nāl. . Nālaṭi (Nālaḍiyār, G. U. Pope).
 NEG . New English Grammar, Pt. I, Henry Sweet.
 PGG . Principes de grammaire générale, Louis Hjelmslev.
 PGT . Progressive Grammar of the Telugu Language, A. H. Arden.
 POG . Philosophy of Grammar, O. Jespersen.
 SKG . Kanarese Grammar, Harold Spencer.
 Tol. . Tolkāppiyam (old poem).
 El. . Tol. Eḷuttatikāram (phonology).
 Col. . Tol. Collatikāram (grammar).

DOUBLE GAMMA AS TRUE 'DOUBLE-G' IN GREEK

A PROBLEM IN PHONETIC REPRESENTATION

By L. J. D. RICHARDSON

READERS of Greek are so used to pronouncing $-\gamma\gamma-$, in print or writing, as $-ng-g-$ that the question is seldom, if ever, asked whether $-\gamma\gamma-$ may in some cases simply represent a plain double gamma.¹ The possibility of such a convention as $-\gamma\gamma- = -ng-g-$, i.e. agma² + gamma, being overridden in special circumstances is suggested by the parallel that in Gothic, which borrowed from Greek this method of writing the nasal guttural before another guttural,³ the combination *ggw*, which normally represents *ng-gw*, as in *siggwan* (cf. the English cognate 'sing'), can on occasion stand for *gg-w*, as in *bliggwan* (cf. the cognate 'blow' = stroke). Did any peculiar conditions ever occur in Greek to demand the pronunciation $-gg-$ for $-\gamma\gamma-$? This paper is the story of a quest. We shall find that several types have been sporadically noticed in unrelated and largely inaccessible quarters, and some not noticed at all: no attempt has been made at integration, to

¹ Throughout this paper discussion of the convention $\gamma\gamma = ng-g$ includes the similar use of $\gamma\kappa$ for *ng-k*, $\gamma\chi$ for *ng-kh* and $\gamma\xi$ for *ng-ks*.

² For a recent discussion of agma see L. J. D. Richardson, *Agma, A Forgotten Greek Letter*, in *Hermathena*, LVIII, and J. W. Pirie's notice in *C.R.*, LVI, 2, p. 92. The name Agma for *v* derives from a single passage in Priscian (I. 39). Against Pirie's view that agma is not an onomatopoeitically created letter-name (as suggested by me), but simply the existing noun $\acute{\alpha}\gamma\mu\alpha$ ('fragment', from $\acute{\alpha}\gamma\upsilon\upsilon\mu\iota$) conveniently pressed into service from its resemblance to $\gamma\acute{\alpha}\mu\mu\alpha$ may be cited the fact that no other alphabetic name was derived in this way. $\sigma\acute{\iota}\gamma\mu\alpha$ is no exception, as is shown by its being indeclinable and by its alternative accentuation $\sigma\acute{\iota}\gamma\mu\alpha$ (i.e. it is not a noun * $\sigma\acute{\iota}\gamma\mu\alpha$, -τος, from $\sigma\acute{\iota}\zeta\omega$). Those scholars, e.g. ten Brink, Wilmanns, who emended to $\acute{\alpha}\gamma\gamma\mu\alpha$ in Priscian, must have had a phonetic origin in mind.

³ This orthography also appears in the Runes, which indeed had a special letter (*ing*) for *ng-g*. But the symbol for *ing* has obviously evolved from a ligature of two symbols for *gifu* (= *g*).

consider the question as a whole, and some of the forms, even when recognized, have been left unexplained.

In the first place, it is obvious that the controlling conditions must be very unusual, for *-gg-*, never being original, can ordinarily arise only from contraction or compounding, and, as no Greek word ends in *-γ*, or in a *-β* or *-δ* which would be assimilated to *-γ-* before *γ-*, there can be nothing in Greek comparable with the Latin *aggredior* or *suggero* from *ad* and *sub* respectively. There will be found two ways in which *-gg-* can arise in composition, one in literary texts, the other a vernacular pronunciation where we must look to epigraphy and papyrology for evidence.

1. *Literary Texts.*—In poetry, especially in Homer, *κατά* (and *κατα-*) may suffer apocope, with assimilation of the final *τ*, before a consonant. Thus *καὶ δ δώματα, καὶ π πεδίον* and *κάββαλε* for *κατὰ δώματα, κατὰ πεδίον* and *κατάβαλε* (or *κατέβαλε*). I can find only one instance¹ in the whole corpus of Greek poetry of *κατά* thus treated before a word beginning with *γ*. This is at *Iliad* XX, 458, where editors read *καὶ γ γόνυ*² or *καγγόνυ* according to choice. Habit here will make the casual reader pronounce the combination as *kangonu*: this is certainly wrong. Leaf alone among the editors (to my knowledge) notes this,³ and cites as confirmation the variant *κακ γόνυ* of some good MSS. Cf. the *κακ κεφαλὴν* which occurs a few lines later (v. 475), and, generally, in addition to the *κκ*, *δδ*, *ππ* and *ββ* already illustrated, *καρ ῥόον, καμμονίη, κάλλιπε*.⁴ The gemination

¹ Other than the very doubtful *καὶ γ γόνων*, Sappho 44 (Bergk, *bis*), obelized by Lobel.

² Nauck and Leaf in his 2nd ed. print *καγ γόνυ*. For all the MS. variations (which include several strange *voces nihili*), see the exhaustive *apparatus criticus* in T. W. Allen's edition of the *Iliad* (1931).

³ The pronunciation of *καὶ γ γόνυ* is not discussed by Brugmann³ (1900) or Schwyzer (1934), but Kühner-Blass³ (1890), p. 57, recognizes its true sound, as does Schwyzer (1939).

⁴ The only Homeric forms which do not exactly correspond with this model are *κάτθανε, καὶ π φάλαρα, κάκτανε, κάσχεθε* and *καστορνῦσα*. But the first two are regular accommodations, as the reduplication of verbs with an initial aspirate shows, while *κάσχεθε* (*Il.*, XI, 702) and *καστορνῦσα*

in all these combinations is due to complete assimilation and there is no reason for a nasal to intrude anomalously into one of the forms. *κὰγ γόνυ* is to be sounded *kaggonu*.

It is therefore misleading of Liddell and Scott,⁹ p. 883, F, and of Lobel, *Sappho*, p. xlvii, in view of the uniqueness¹ of this *κὰγ*, to list it without comment with the other frequently occurring types of apocopated *κατά*.

Gamma Geminatum also appears in a modern emendation. In the vexed line 699 of Aeschylus' *Choephoroe* Wilamowitz-Moellendorff in his *editio maior* reads *ἐγγράφεις*. His critical note is '*ἐγγράφει correxi; est ἐκγράφεις*'. He is therefore taking *ἐγγράφεις* as a compound of *ἐκ*, not of *ἐν*; and a nasal sound would have no *raison d'être* in this collocation. But Wilamowitz does not comment on the pronunciation of his word. I owe this reference to Professor W. B. Stanford.

2. *Attic Inscriptions and Papyri*.—One does not turn to epigraphy to look for consistency in spelling. For instance, in Attic inscriptions as in those of other dialects, it is common to find *ν* written as if unassimilated before consonants, and this not only under the influence of the derivation, e.g. *συνμάχων*², *ἐνγραφοί*³, but also in other cases where the etymology is not so clear, e.g. *ἐνγύς*,⁴ or even where the etymology is obscured by this spelling, e.g. *ἐγρανμάτευν*.⁵ Thus the phonetic sequence *n + g*, which rapidly becomes

(*Od.*, XVII, 32) stand for, and should, perhaps, be written, *κάσσεθε* and *κασσορνύσα*. Cf. *κασπολέω*, *Sappho*, 81 (= *κατασελῶ*), but contrast the different type of reduction in *κάσμορος* (Hesychius) and kindred forms in dialectical inscriptions. Possibly we should write *κάκκτανε* also.

¹ Just as *Il.*, XX, 458, gives the only instance of apocope resulting in *γ = g* usually misread as *ng*, so the only instance I can find in Homer of a correption resulting in the opposite *dubium*, viz. *ν = ng* and so better written *γ*, is provided by *ἀνξηράνη* in *Il.*, XXI, 347 (from *ἀνα-ξηραίνω*), where some editors read *ἀγξηράνη*. The Dictt. are in two minds about these conjunctions, e.g. L. and S.⁹, Grimm-Thayer *παλιγγενεσία*, Souter *παλιγγενεσία*.

² *C.I.A.*, II, 249, 10.

³ *C.I.A.*, I, 446, 34.

⁴ *C.I.A.*, I, 465, 2.

⁵ *C.I.A.*, II add., 489, b, 3.

$n + g$ in usage, is represented, whether in the body of a root (*ἄγγελος*), in composition (*ἐγγενής*) or between words (*τὸ γ γραμματέα*), indifferently by *γγ* or *νγ*. There is no presumption that *ἄγγελος* was pronounced in any way other than was *ἄγγελος*. This apparent interchangeability of *γγ* and *νγ* in writing, together with so many other vagaries of orthography, makes it possible to suggest that an occasional spelling *-νγ-* for *-γγ-* in a very exceptional word, in which there may be some reason to believe that *-γγ-* represented a true double *g*, would not be an altogether insurmountable objection to that belief. Appeal will be made later to this 'licence'.

In literary texts $\kappa + \gamma$ always, with the one exception of *ἐγγονος* 'grandchild' (for which see p. 161), gives *-κγ-*, e.g. *ἐκγίγνομαι*.¹ But in Attic inscriptions the preposition *ἐκ* regularly becomes *ἐγ-* in composition before γ -, just as it does before the other voiced sounds $\beta \delta \lambda \mu$ and ν .² The papyri, however, while usually showing *ἐγ-* before $\beta \delta \lambda \mu$ and ν , keep the form *ἐκ-* before γ -, except in the word *ἐγγονος* 'descendant', 'issue' = literary Attic *ἐκγονος*.³ There are four problems here—the pronunciation of *ἐκγίγνομαι* and its epigraphical equivalent *ἐγγίγνομαι*: the anomalous reversion to *ἐκγίγνομαι* in the papyri: the exception *ἐγγονος* (*ἐκγονος* in texts: and the exception *ἐγγονος* = *ἐκγονος* in the papyri. Of these, the first can hardly be called a problem now: the last three, however, have indeed been noticed descriptively as facts; but I know of no explanation having been put forward.

It is clear that *ἐκγίγνομαι* and *ἐγγίγνομαι* represent the same sound, the textual form being the more conservative.⁴

¹ So also $\kappa + \chi = \kappa\chi$ (e.g. *ἐκχέω*) and $\kappa + \xi = \kappa\xi$ (e.g. *ἐκξέω*).

² Meisterhans, *Grammatik der Attischen Inschriften*³, pp. 106–8.

³ Mayser, *Grammatik der griechischen Papyri aus den Ptolemäerzeit*, pp. 225–8.

⁴ Cf. Brugmann (*G.G.*³, § 140*d*), 'das *ἐκ* auch vor die stimmhaften Konsonanten zu stehen kam, z.B. att. *ἐκ βουλῆς*, *ἐκδοσις*, war jedenfalls mehr Schriftgebrauch als Usus der Sprache selbst.'

The $-\gamma\gamma-$ thus stands for $-gg-$ or for shades of approximation to $-gg-$ ranging from $-kg-$. This is confirmed by the behaviour of $\acute{\epsilon}\kappa$ before the voiced sounds other than γ . As the inscrip-tional forms $\acute{\epsilon}\gamma$ βουλήης,¹ $\acute{\epsilon}\gamma$ Δήλου,² $\acute{\epsilon}\gamma$ λέγειν,³ $\acute{\epsilon}\gamma$ Μακεδονίας⁴ and $\acute{\epsilon}\gamma$ νεωρίων⁵ are normally represented in texts by $\acute{\epsilon}\kappa$ βουλήης, $\acute{\epsilon}\kappa$ Δήλου, $\acute{\epsilon}\kappa$ λέγειν, $\acute{\epsilon}\kappa$ Μακεδονίας and $\acute{\epsilon}\kappa$ νεωρίων, the presumption is that the first γ in $\acute{\epsilon}\gamma$ γαμετήης⁶ also marks merely the voicing of the plosive κ by assimilation⁷ with the following γ and not the intrusion of an alien nasalization.⁸

The writing of $\acute{\epsilon}\gamma$ for $\acute{\epsilon}\kappa$ before γ occurs also in inscrip-tions outside Attica. For example, in Dittenberger's *Sylloge Inscriptionum Graecarum*², 177, 62,⁹ $\acute{\epsilon}\gamma\gamma\rho\acute{\alpha}\psi\alpha\sigma\theta\alpha\iota$ (= $\acute{\epsilon}\kappa\gamma\rho\acute{\alpha}\psi\alpha\sigma\theta\alpha\iota$) appears in an inscription from Teos. W. Feldmann would emend to $\acute{\epsilon}\kappa\gamma\rho\acute{\alpha}\psi\alpha\sigma\theta\alpha\iota$, but Dittenberger remarks 'sed non est cur emendemus, dummodo hic prius γ non nasalem, sed mediam assimilatione ortam interpretemur, proinde ac modo $\acute{\epsilon}\kappa\gamma\omicron\nu\omicron\iota$ modo $\acute{\epsilon}\gamma\gamma\omicron\nu\omicron\iota$ in titulis legitur'. A true geminate gamma has thus been recognized

¹ *C.I.A.*, IV, 2, 834, b, 68.

² *C.I.A.*, II, 814, a, A, 29.

³ *C.I.A.*, II, 589, 27.

⁴ *C.I.A.*, IV, 1, b, 35, c, p. 65, l. 15.

⁵ *C.I.A.*, II add., 834, c, 12.

⁶ *C.I.A.*, IV, 2, 841, b, 110-11.

⁷ But in many traditional phrases and combinations the assimilation was probably not direct but due to the voicing of the original sigmatic form $\acute{\epsilon}\xi$. $\acute{\epsilon}\xi$ Διός, i.e. *eks dios*, gave *ekz dios*, which in turn gave *egz dios*, and finally *eg dios* (Brugmann, op. cit., § 113, 140d). This will explain the form $\acute{\epsilon}\sigma\gamma\omicron\nu\omicron\varsigma$ (for $\acute{\epsilon}\gamma\zeta\text{-}\gamma\omicron\nu\omicron\varsigma$, from $\acute{\epsilon}\xi$ + $\gamma\omicron\nu\omicron\varsigma$) found in Boeotian, Cretan, Thessalian and occasionally in other dialects, where a different way of reducing the cluster *gzg* was followed.

⁸ I note no tendency in one's own speech to nasalize just because two voiced gutturals chance to come together: *big goose* does not drift towards *bing goose* (but see footnote 2 on page 166 on the 'irrational nasal').

⁹ = *S.I.G.*³, 344. For this reference to the third edition (not accessible to me) and much other help on epigraphical points I am greatly indebted to Professor J. M. R. Cormack. He has given me $\kappa\alpha\gamma\ \gamma\acute{\alpha}\gamma\ \kappa\alpha\iota\ \kappa\alpha\tau\ \theta\alpha\lambda\alpha\tau\tau\alpha\nu$ in *S.I.G.*³, 179.9 (Boeotia), but adds that it is very dubious, as 'the majuscules read *KΑΠΠΙΑΕ*'.

by epigraphists.¹ Furthermore, we must conclude that ἐγγράφω, with gemination of gamma (= ἐκ-γράφω) was distinguished in pronunciation from its homograph ἐγγράφω, with agma (= ἐν-γράφω).²

In inscriptions, however, this ambiguity was often (? conveniently) avoided by the chance of the habit, as already mentioned, of writing ἐνγράφω for the latter. I believe that the same principle, avoidance of ambiguity, was *deliberately and consistently* followed in the papyri. But here the method employed was to retain the form ἐκ before γ alone of the voiced sounds. Hence ἐκγίγνομαι (pronounced *egg-*), but ἐγβάλλω, ἐγλείπω, etc.

The twofold and doubly anomalous ἔγγονος, however, merits some attention. Why should this form appear in the papyri, contrary to the practice in other words? ³ I believe that this spelling is due to the influence of an established orthography which obtained in earlier Attic Greek, an orthography which reflected a peculiar pronunciation that went with a special meaning. The dictionaries give ἔκγονος 'child', 'descendant': this is the normal form and the general meaning. But (e.g.) Liddell and Scott ⁹ also lists, as a separate but related word, the form ἔγγονος, with the key 'properly *grandson*'. It then cites instances of ἔγγονος used for ἔκγονος, as 'simply *descendant*', but notes that in the passages cited the MSS. vary between the two forms (as may well be

¹ So also Mayser, *op. cit.*, p. 228, 'ἔγγονος (sprich eggonos, nicht engonos)'; and Kühner-Blass, pp. 57, 178 ('mit gg, nicht ng'): Schwyzer, p. 179, footnote 10 ('noch seltener als bb und dd ist gg, geschrieben γγ oder κγ'): W. H. D. Rouse, *C.R.*, XVIII, 5, p. 277 ('the latter being *eggonos*'). But when Hicks and Hill, *Greek Historical Inscriptions*², p. 313, dismiss the frequent occurrence of ἔγγονος for ἔκγονος as 'a mere misuse of one word for another', they fail to see the problem. It is obvious that they posit two words, ἔκγονος and ἔγγονος, automatically sounding the latter as *eng-gonos* and assuming the derivation ἐν + γονος.

² But such is the anarchy in epigraphical forms that ἐκγράφω is found standing for ἐν-γράφω in *S.I.G.*³, 742, 29, Ephesos I^a (see Schwyzer, I, p. 317).

³ Ἐκγονος is very occasionally found, e.g. in Pap. Tebtunis, I, 79, 85 (c. 148^a).

expected). Liddell and Scott, however, offer no suggestion as to the pronunciation of ἔγγονος (which a casual reader would certainly sound as *engonos*). It is true that at the end of the article Liddell and Scott state 'ἔγγονος may represent ἔκγονος (q.v.), both forms are found in Attic Inscriptions up to *circa* 300 B.C. '; but I think this is a note on the derivation, not on the sound, of the word. There can scarcely be any doubt about the derivation: Liddell and Scott is correct, the word is a compound formed from ἐκ, not from ἐν—surprising though this be. For by all the laws of Greek orthography, ἔγγονος should represent ἐν-γονος and be pronounced *engonos*. But the sense is against this, and ἔκγονος and ἔγγονος are almost certainly doublets. I hazard an explanation of this puzzle, as follows. The original compound, undoubtedly, was ἔκγονος (cf. 'off-spring'), with the general sense of 'progeny', and this sense remained with ἔκγονος. But the word came to be applied in particular to the young progeny in the household, especially the grandchildren.¹ It became a nursery word, with an 'advanced' or 'easy' pronunciation of *-kg-* as *-gg-*. It was also, no doubt, used hypocoristically. Now doubled consonants are a feature of the pronunciation of *Kosenamen*, as is shown in, e.g. *μικκός, τίτθη, πάππα* and many proper names,² and though the doubling here is not *ab initio* but mainly due to the easement, in familiar speech, of a consonantal cluster, it was, however, agreeable to the use of the word and possibly at first served the practical purpose of distinguishing between the two meanings of what was once the same word. However that may be, there is little doubt that in ἔγγονος, pronounced *eggonos*, we have a genuine example of double-*g* written *γγ* in a Classical Attic word.

The pronunciation *eggonos*, in this very intimate use of the word, was only an anticipation of what ultimately happened

¹ The grandchildren had a very special place at Athens, particularly in relation to their grandparents, from whom they were named.

² Cf. Brugmann, *G.G.*³, § 120 note; Buck, *Comp. Greek and Latin Grammar*, § 209a; Buck, *Greek Dialects*¹, p. 71; etc.

to ἔκγονος ('descendant') and all similar words. The speed and degree of assimilation would depend on the familiarity of the compound: one can assume that in a ἄπαξ λεγόμενον or unusual coinage, or in a word in which the force of the prefix was specially marked, the tendency would be to retain longer than elsewhere a clearer enunciation of the prefix ἐκ- as *ek-*. Thus in English we make use of an abnormal change of stress accent to emphasize, by clarity of utterance and phonetic detachment, a prefix which is ordinarily unstressed, e.g. the occasional use (in colloquial or 'incorrect' speech) of 'ré-form', instead of the normal 'refórm', to signify 'to form again', or the sentence 'I said "óbstruct", not "cónstruct"')(the normal *obstrúct* and *constrúct*.¹ This ability to hold, or to recover part of, the original etymology throws some light on the Attic doublets ἔκγονος and ἔγγονος. As compared with ἔγγονος 'grandchild', the word ἔκγονος retains to a varying degree some mental association with ἐκ—just as its English counterpart 'offspring' excites in a greater or less degree, in proportion as it consciously echoes 'off', the notion of origination attached to that particle. But the awareness of ἐκ will become very slight indeed with repeated use and with the ever closer degree of assimilation which follows wider currency. The spelling ἔγγονος (for 'descendant') in the papyri represents accurately what came to be the common phonology of all ἐκγ- words, but the double-g it was possible in this word alone to render thus by a purely phonetic orthography because the spelling ἔγγονος (for 'grandchild') was already long-established and familiar as the traditional representation of the sounds in the phoneme *eggonos*.

The numeral ἔξ was treated rather like ἐκ in inscriptions and papyri. While ἔξ and ἔκ appear indiscriminately before a breathed consonant, e.g. ἔξ ποδῶν by the side of ἐκ ποδῶν,

¹ This principle operates within limits. No degree of emotional emphasis will restore the original *kg* for normal *gg* in such a word as *blackguard*: this is because the phoneme *black* has ceased in this compound to carry any relevant meaning, cf. *cupboard* which is now crystallized with *-bb-*.

before a voiced sound the forms ἐξ and ἐγ occur, e.g. ἐξδάκτυλος and ἐγδάκτυλος. The last is found in *C.I.A.*, II, 834, b, II, 11, with the anomalous spelling ἐγγδάκτυλος. A nasalized guttural cannot be intended here. Rather we are now introduced to γγ as a writer's variant for γ, the result either of a personal fondness for gemination or of an error due to graphical contamination with other forms. Double gamma occurs sporadically elsewhere in this way. For instance, in an inscription from Isaura (Galatia) given in *Inscriptiones Graecae ad res Latinas pertinentes*, Vol. III, No. 285, we find the phrase Ἀσκληπιῶ καὶ θεᾷ Ὑγγία. Ὑγγία must take its place with the not infrequent στήλλην, γέγραφφεν, Σεββαστός, etc., and is significant for our inquiry only in so far as it shows that γγ did not inevitably and exclusively stand for ng-g for this inscriber.¹ In the papyri, too, we have, e.g., ἐγγλογίζεται in *Pap. Lond.* I, p. 39, 41.

But γγ, appearing as a variant for γ, is not always attributable to error or idiosyncrasy. In Ἀγνούσιος,² by the side of Ἀγνούσιος (demesman of Ἀγνοῦς), Brugmann finds³ an attempt to indicate the sound *m*, a recognizable stage in the phonetic drift from γίγνομαι to γίνομαι (but see *infra*, p. 173). Again, with this compare such spellings in the papyri as πρόσταγμα (*Pap. Leid.*, 'Dream of King Nektonabos,' 3, 5, Wilcken).

3. *Non-Attic Inscriptions.*—Nothing very certain can be deduced from the welter of divergent forms in the inscriptions other than Attic. But one probable treatment of *gg* occurs

¹ A similar 'pointer' may be sought in the later use (borrowed from the Romans) of doubling final letters as an abbreviation to represent plurality. I cannot find a doubled gamma, simply; but in the case of the three co-emperors we have ΑΥΓΓΓ (= AUGGG), *Athenische Mitteilungen*, xxiv, 210 (listed by M. Avi-Yonah, *Abbreviations in Greek Inscriptions* = Supplement to Vol. IX of the *Quarterly of the Department of Antiquities in Palestine*, 1940). This convention still allows us to write edd. for 'editors' and pp. for 'pages'. But we should not use '22' to indicate 'a number of 2's', for 22 already has an accepted and exclusive significance of its own.

² *C.I.A.*, II, 1698, 3.

³ *Indogermanische Forschungen*, V, 380.

in Cretan. The Attic *πρέσβυς* (= *pres-g^hυ-s*) and related words appear with delabialization in some dialects, e.g. Boeotian *πρεσγεῖες* (plural). In Cretan, too, the original form seems to have been **πρεσγυς*, which by the phonetic sequence *sg > zg > gg* should give **πρεγγυς*. The spelling usually found, however, is *πρεῖγυς*, cf. *πρειγευτάς*, *πρεῖγων*, *πρεῖγιστος* (= Coan *πρήγιστος*). Schwyzer¹ thinks that 'pregg- probably gave preig-'. But late Cretan inscriptions offer the form *πρεγγευτάς*. Buck² calls this a hybrid form—without expressing an opinion as to its pronunciation. One thing seems certain, that it does not stand for *pregg-*. It is probably a representation of *gg* by *γγ*. In the variant *πρειγευτάς* Buck finds, as does Boisacq³, a secondary base *πρεισ-*, cf. Thessalian *πρεισβεία*, a form adverse to the compensatory lengthening required by Schwyzer.³ It seems likely, then, that Cretan had two original forms, **πρεσγυς* and **πρεισγυς*. This must be Brugmann's view⁴ when he says 'Kret. *πρεγγευταί* = *πρεσγευταί* und *πρειγευταί* (*γ = γγ*) = *πρεισγευταί*'. The important point for our inquiry is that here we have two different ways of attempting to commit Greek *gg* to writing, viz. by means of (i) *γγ*, (ii) *γ*.

Another clue is worth following, though it must end in a query. The common Greek verb *αἰρέω* is replaced in the Aeolic group of dialects (and in Elean) by *ἀγρέω*, which shows itself rarely elsewhere.⁵ In literary Lesbian *ἀγρέω* is familiar through Sappho (e.g. *τρόμος πᾶσαν ἄγρει*), and the verb frequently occurs in the inscriptions of Mytilene and other parts of the Asiatic Aeolic area. But in the Thessalian of Pelasgiotis (Larissa) *ἐφάνγρευθεν*⁶ posits a

¹ *G.G.*, I, p. 216.

² *Greek Dialects*¹, § 86, 3a.

³ Kühner-Blass is not clear on the point. In § 34 *ι* is said to be substituted for *σ* in *πρεῖγυς*, but in § 153, note 2, *πρεῖσγυς* is given as an original form.

⁴ *G.G.*, § 112, 3.

⁵ Homer uses the imperatives *ἄγρει*, *ἀγρεῖτε* only as exclamatory particles (cf. *δεῦρο*, *δεῦτε*), and has the derivatives *αὐτάγρετος*, *παλιναγρετος*, *πυράγρα*, *ζωαγρέω* and *μοιχάγρια*. The related noun *ἄγρα* is of wider provenance.

⁶ Buck¹, 28⁴¹ = Cauer², 409⁴¹.

form *ἀνγρέω*.¹ Buck (§ 58c) thinks that 'the aspirate, as well as the *ν*, is probably due to contamination with some other word'; but Schwyzer (pp. 231–2) asks if *ἀνγρέω* may not stand for **ἄγγρ*- 'mit expressiver Verdoppelung des *γ*'. Schwyzer is here discussing the tendency, particularly in the *Κοινή*, to write a parasitic nasal in the place of the first *p*, *b* and *t* in *pp*, *bb* and *tt* (e.g. *Καμπαδοκία, κάμβαλε, γλῶντας*).² If Schwyzer is correct in his surmise, we have the practice here extended to a guttural, *νγ* being written for *γγ* (= *gg*), a possibility I suggested earlier in this paper.

The frequent apocope of *ποτί* (= *πρός*) and the less common apocope of *μετά* in Aeolic inscriptions give two instances of *gg*, which is written *κγ*: viz. Thessalian *ποκυραψαμένας* and Boeotian *Μέκγαιο* (genitive).³

Occasionally a nasalized guttural lost its nasal quality by dissimilation when a nasal preceded, e.g. Delphian *ἀνεκκλήτως* for *ἀνεγκλήτως* and in the papyri *ἐπάνακκον* for *ἐπάναγκον* (*Berliner Urkunde*, I, 50, 13).⁴ The resultant sound is sometimes written as a single guttural in the papyri (e.g. *μετήνεκα*, *Pap. Lond.* I, pp. 42, 131). Theoretically, this dissimilation would give *gg* when the second guttural was voiced. But the ambiguity of the symbol *γγ* makes it impossible to detect this, if it occurred. A spelling with a single *γ* (for *γγ* = *gg* replacing original *ng*), on the pattern of *μετήνεκα*, would be significant, but I have been unable to find an example.

¹ So too Lesbian *ἄγρεις*, but Thessalian (*προ*-)*ἀνγρεις* (from Crannon, Buck¹, 31¹⁵ = Cauer², 400¹⁵) = (*προ*-)*αἴρεις*, in meaning.

² This 'irrational nasal', when not merely a habit of writing but a representation of a sound, may be connected in Asia Minor with a nasal intonation derived from the native languages of the region (Buturas in *Glotta*, 1913, pp. 170 ff.: D. Emrys Evans in *C.Q.*, XII, p. 165, who cites *ἀνγαθόν* from Miskamos and *θυγγατρί* from Kozanlı). For other examples of the 'irrational nasal', in the representation of Latin words in Greek papyri, see Meinersmann's study referred to later, e.g. *ρέγκαυτος* = *recauius*, *σεμψελλιον* = *subsellium*, *Βρεταννικος*. Perhaps the English *messenger* (French *messenger*), *passenger*, *scavenger* and *nightingale* may be compared.

³ Kühner-Blass, I, 1, p. 178; Schwyzer, p. 179, footnote 10, and p. 231. I do not know what to make of the Delphian *ἐγγ Ματροπόλεως*.

⁴ Brugmann, *G.G.*³, § 124, 3, gives these as instances of 'Fernassimilation'. He is followed by Buck (§ 69, 3). But Mayser (op. cit., § 37) prefers

Let us now turn to testimony of quite a different order, that of the transliterations in Greek of foreign words which contained *-gg-*. The prophet Haggai comes to mind at once. This name appears in the LXX as *Ἀγγαῖος*, with some slight variants, e.g. *Ἀγγαῖος* and *Ἀγγεος*. Here *-γγ-* represents *-gg-*. While admitting that the word is not Greek and therefore not direct evidence in respect of Greek phonology, we can still claim that this spelling shows that it was not felt impossible in Greek orthography to represent *-gg-* by *-γγ-*. But what of other Hebrew names with *-gg-*? Here comes to light a strange fact—not, I think, of scientific importance, but worth noting as a curiosity—viz. that the Biblical Hebrew personal and place names which contain *-gg-* can be counted on the fingers of one hand. This is indeed surprising, since the occurrence of double-*g* is quite frequent in Hebrew. For instance, every Hebrew noun and adjective beginning with gimel has that letter doubled after the article: and all what we may call ‘Ayin Gimel’ verbs must have the central consonant doubled in certain tenses. From a study of the lists in Nöldeke, in Gray’s *Hebrew Proper Names* and the various Concordances, I can find only Haggai, Haggeri, Haggi and his descendants the Haggites, Haggiah, Haggith, and Hor-Haggidgad. Of these the second and the last are spurious instances and are represented otherwise in the LXX. This leaves only four, which are obviously of the same type (all with initial heth). Their forms, respectively, in the LXX are *Ἀγγαῖος*; *Ἀγγεῖ* (and *δῆμος ὁ Ἀγγεῖ*); *Ἀγγια* var. *Ἀμά*; *Ἀγγεῖθ*, *Ἀγγιθ*, *Ἀγιθ*, *Φεγγεῖθ*, *Φεγγιθ* and omitted.

The same equivalent also appears in the very few Hebrew words, not being proper names, which chance to be trans-

to regard such forms as due to simple assimilation (of *ḡ* to *k*), the nasalization of the first guttural being shed in the process. But all his examples have a *ṽ* in the adjoining syllable, before or after, which suggests that Brugmann (following Kretschmer) was right in finding a dissimilative influence. Moulton, in reporting the aorist subjunctive *ἀπενέκκω* (*Class. Review*, xv, 1, p. 37) speaks of its context (*B.U.*, 246) as ‘very illiterate’.

literated. The word Higgsaion appears in our English Versions appended to the seventeenth verse of the ninth Psalm, being probably a musical direction. The LXX neither transliterates nor attempts to translate, as it does with the more familiar Selah (which it renders by *διάψαλμα*). But I have found Higgsaion represented, in the Second Column of Origen's Hexapla, by *εγγαων* (at ix, 17: by *εγαων* at xcii, 4). This Column provides only two further examples: *αιεγγιθ* (Psalm xxx, 10) for *הַיַּגְגִּידְהוּ* (*hăyaggîdh*) and *εγγιου*¹ (Psalm xxxii, 6) for *יַגְגִּי'וּ* (*yaggî'û*). Again *γγ* = *gg*.

There is one very noteworthy instance where a Hebrew name is not to be found in any lexicon of names found written in Hebrew, but has to be deduced from the Greek transliteration. In the genealogy of Luke III—where there was no immediate Hebrew original,² the Gospel having been composed in Greek—the name *Ναγγαί* of v. 25 was intuitively and correctly rendered *Naggae*, not *Nangae*, in the Vulgate (*Nagge* in the Sixtine and Clementine Recensions) and in our English versions *Naggae* (A.V.) and *Naggai* (R.V., Moffatt).³

In the *Hebrew Union College Annual*, published in Cincinnati, Vol. XII (1937), Alexander Sperber reconstructs a grammar and vocabulary of Hebrew based upon the Greek and Latin transliterations of proper names in the LXX and of other words in St. Jerome's *Onomastica Sacra* and the Second Column of Origen's Hexapla. Sperber's entry under *g* is brief and unequivocal—'ג is γ; the gemination of ג is transliterated by γγ, for instance *גַּיִן* *αγγει*.'⁴

How can Latin help us, for many Latin words, proper

¹ It is a strange coincidence that this verb should be rendered in the LXX by so similar a form as *ἐγγιῶσω*, especially as the verbs *nāga'* and *ἐγγίζω*, in their 'lexicon' forms, have so little in common.

² That is, apart from whatever document or census list that was being followed.

³ On the other hand, the true pronunciation of this name is not indicated in Pape-Benseler's, *Wörterbuch der griechischen Eigennamen*.

⁴ I gladly acknowledge my debt to Professor T. H. Robinson for drawing my attention to this useful book.

names and others, appear in Greek inscriptions and papyri? It is the story of 'Haggai and little else' again: such a word as *aggredior* immediately suggests itself, but further search reveals that *-gg-* is unexpectedly infrequent in Latin. There are only three types—compounds of *ad*, such as *aggredior*, *agglomero*, *aggrego*, *aggero*, *agger* (some twenty-two in all),¹ two compounds of *ob* (*oggero*, *ogganio*), and ten compounds of *sub* (*suggero*, *suggestus*, etc.).² The first point to notice about these words is that they would, as likely as not, be written *adgredior*, *subgero*, etc., which renders them useless for our purpose. The second point is that not one of these thirty-five words is of a type which would give rise to a proper name. The hope of finding here a transliteration illustrative for our inquiry dwindles. *Agger*, especially as a topographical place-name as in *Agger Servii* in Rome, and *suggestus* as a military term are the most promising; but I have been unable to find *Agger Servii* transliterated in any Greek literary writer,³ and a combing of the volumes of the *Corpus Inscriptionum Graecarum ad res Latinas pertinentes* brought no instance of any of these words in Greek dress. But my pains were at last rewarded: in a list of Latin words in the Greek Inscriptions of Asia Minor compiled by Professor A. Cameron⁴ there is a single example, τὴν σουγγεστίονα⁵ = *suggestionem*. Here again *γγ* = *gg*.

It should be recorded here that the companion list of

¹ These figures are only approximate, for many of these words are ἀπαξ λεγόμενα and late, and the number depends on the terminal date chosen. Also it is a question whether, e.g. *aggestus*, *-ūs* and *aggestus*, *-i* are to be reckoned as one word or two, or even, with *aggestio*, *aggestum* and *agger*, all to be referred to a single form *aggero*.

² Latin Dictionaries give only one word with what seems to be a radical *-gg-*. This is *magganum*. But it is a late word of single occurrence (though apparently a prolific parent of derivatives in medieval Latin, see Ducange on *manganatio*, etc.), of doubtful spelling, and almost certainly a borrowing, probably a perverted form of *μηχανή*.

³ E.g. Plutarch, Dio Cassius, Dion. Hal., Strabo, Appian. *Agger* usually appears as *Χῶμα*.

⁴ *American Journal of Philology*, LII, No. 207 (1931).

⁵ *Bulletin de correspondance hellénique*, I, p. 33 (1877).

Latin words in the Greek Papyri compiled by Meinersmann¹ does not provide any instances.

The almost total absence of Latin (and Italic) names with a doubled voiced guttural is very strange, in view of the number of other geminations. In the numerous local lists of gentile names in Conway's *Italic Dialects* such forms as Abbia, Addia, Dellia, Mammia, Annia, Tuppuria, Turrena, Dessia and Cottia are frequent, and there is no lack of names with the unvoiced guttural doubled, e.g. Accia, Succonia, Paccia, Vaccia, etc.² Out of close on 4,000 entries only one shows *-gg-*, namely Eggia.³ Conway says that Eggia occurs once among the Peucetii, once among the Campani, once among the Volsci, infrequently among the Latini, often among the Hirpini—but none of these occurrences, as far as I can discover, are written in Greek letters. I note, however, a form *Eĩa* recorded in Campania, and it is possible that this represents a palatalized pronunciation of Eggia (cf. the Hellenistic *ὀλίος* for *ὀλίγος*).

Professor W. H. Porter has drawn my attention to a strange spelling for which I have found no explanation put forward and, doubtfully, here proffer my own. Editors had written *Γράκχος* in Plutarch for 'Gracchus' as the normally correct form, but the Teubner editor, Sintenis, 'restores' *Γράγχος*, because the best MSS. of Plutarch have *Γράγχος passim* (apart from *Γράγγος* once, *perperam*), though *Γράκχος* is the usual form of the name in the MSS. of other authors. Of later editors, Holden (1885) follows Sintenis, his only comment being 'the Greek form of his *cognomen* is *Γράγχος*, not *Γράκχος*, in S G': but Underhill (1892) keeps *Γράκχος*

¹ *Die lateinischen Wörter und Namen in den griechischen Papyri*, Leipzig, 1927. I regret that I have been unable to see Eckinger, *Die Orthographie lat. Wörter in gr. Inschriften*, Munich, 1892, which may discuss the point. There is nothing relevant in Wilhelm, *Lat. Wörter in gr. Inschrift.*, Wien. Stud., xlvii, 1928, or in Dittenberger's earlier studies in *Hermes*, VI (1872).

² Similarly, names with *-κκ-* are occasionally found in Greek, e.g. *Ὀκκος*, reported by Professor J. M. R. Cormack from Beroea (*Annual of British School at Athens*, xxxix, p. 96).

³ But note the absence of *-ff-*.

and says in a critical note ' Title ; Γράκχοι Cobet C : Γράγχοι Sintenis ; so throughout '. There is no attempt here at explanation or discussion. The reference to Cobet is to his *Collectanea Critica* (1878), p. 547, where he says ' Constans propemodum librorum mendum γράγχος pro Γράκχος nollem Sintenisius recepisset, namque perinde vitiosum est Γράγχος ac si quis Βάγχος pro Βάκχος scribere vellet '. This is logical (and seems to be the only reasoned treatment of the problem)—but it does not account for the strange consistency with which the MSS. of Plutarch give the anomalous form Γράγχος. There must be some reason for this. It is to be noted that these same MSS. always offer Βόκχος ' correctly ' for King Bocchus. The spelling must reflect some peculiar pronunciation. There is no possibility, of course, that it represents *Grang-khus* : it is, in effect, another clear instance of a violation of the -γγ-, -γκ-, -γχ-, -γξ- convention. But I think it may indicate a popular pronunciation ' Grag-khus ' or ' Grag-cus '. If the name Gracchus is connected with *grāculus* ' jackdaw ', as seems likely (cf. Gaius = ' jay ', ' magpie '),¹ and not with *grācilis*, it is to be observed that a byform of this word, viz. *gragulus*, is found in Varro and the Glosses. Furthermore, since *graculus* is an onomatopoeic formation from the cry ' gra gra ' of the jackdaw (cf. Quintilian, I, 6, 37), it is natural to repeat the voiced guttural.²

A more exciting speculation now presents itself. If all Hebrew texts had been lost (as was assumed by Sperber for the purpose of his reconstruction), we should have read the ' *Αγγαῖος* ' of the Greek Septuagint as Hangaios, and have spoken of the prophet Hangae : if we knew nothing of Latin, we should, from *συγγεστίονα*, enter *sungestiona* in our list of recaptured Latin words. Is there not a possibility that

¹ Walde³, Ernout-Meillet: not in Lewis and Short.

² The spelling ' Gracchus ' for an early Roman *cognomen* is in itself curious, as not being a native orthography. It must indicate an attempt to Hellenize—an affectation not unlike that found in English when the surname ' Backhouse ' is written ' Bacchus '. The spelling ' Graccus ' is not found before the early Empire, e.g. in Ovid, *ex Ponto*, IV, 16, 31, and *C.I.L.*, VI, 1515.

in some non-Greek person- and place-names which we know only through Greek, names which contain $-\gamma\gamma-$, the value of this representation was not $ng-g$ but gg ? Some indications have made me suspicious of certain $-\gamma\gamma-$ names in the Illyrian-Thracian-Macedonian domain, extending perhaps to Phrygia. There is a town $\Sigma\acute{\iota}\gamma\gamma\omicron\varsigma$ in Chalcidice on the coast of Macedonia: its inhabitants, the $\Sigma\iota\gamma\gamma\alpha\acute{\iota}\omicron\iota$, are mentioned in Thucydides, V (18, 6), and they occur as $\Sigma\acute{\iota}\gamma\gamma\iota\omicron\iota$ in the Athenian quota lists of cities paying tribute—and it has to be admitted that whereas $\Sigma\iota\gamma\gamma\iota\omicron\iota$ occurs thirteen times, $\Sigma\iota\gamma\gamma\iota\omicron\iota$ is found three times. But we have already seen that such a spelling as the latter (especially, it seems arguable, in a foreign word) is not a conclusive objection to belief in the possibility of a double- g . The town is mentioned once in Pliny (*N.H.*, IV, 10, 37), and there the best MSS. give Siggos. Siggos is read by Mayhoff in his Teubner edition (1906), and is given by Lewis and Short.¹

Farther north in the same area the river $B\rho\rho\gamma\gamma\omicron\varsigma$ is mentioned by Herodotus as a tributary of the Danube. His description clearly shows that this must be the Serbian Morava. This river appears as $M\acute{\alpha}\rho\gamma\omicron\varsigma$ in Strabo, VII, 12 (Casaub. 318) or 'as some call it, $B\acute{\alpha}\rho\gamma\omicron\varsigma$ ' (ibid.), and as Margus in Pliny and later writers. Now the equation $B\rho\rho\gamma\gamma\omicron\varsigma$ (i.e. $*M\rho\rho\gamma\gamma\omicron\varsigma$) = Margus = Moráwa strongly suggests that the first γ in $B\rho\rho\gamma\gamma\omicron\varsigma$ is not the velar nasal but a guttural.

Another suspicious name in the vicinity is $A\acute{\iota}\gamma\gamma\omicron\varsigma$, cf. $A\acute{\iota}\gamma\gamma\rho\kappa\lambda\eta\varsigma$ ²; and, in Phrygian, is Ἄγγιστις a nasalized or a geminated form of Ἄγδιστις ? Of all these and some other names, $B\rho\rho\gamma\gamma\omicron\varsigma$ seems to me the most likely to harbour a 'concealed gemination'. But I must record that Dr. B. F. C. Atkinson, who has made a special study of Illyrian and

¹ Siggos may be a variant of the not distant Sigeum ($\Sigma\acute{\iota}\gamma\epsilon\iota\omicron\nu$), for the pronunciation of which we have the unusual advantage of the direct evidence of a pun (with $\kappa\alpha\tau\epsilon\sigma\acute{\iota}\gamma\alpha\sigma\epsilon\nu$) recorded by Aelian, *V.H.*, xii, 13, Hercher. On the other hand, also in this region, Singidunum (= Belgrade), which shows a nasal, is probably Celtic, as the termination suggests.

² In an epitaph from Thasos, for which see Louis Robert, *Études épigraphiques et philologiques* (1938), pp. 201–2.

Thraco-Phrygian names, believes that the initial *m* in the later form of the word came from assimilation with a following nasal, cf. Bendis > Mendis.¹ My present purpose, however, is not to prove—impossible task—the presence of *-gg-* in any particular name, but to make known its possibility, so that philologists in other fields, who use material embedded in Greek records, may be aware that there is an alternative phonology.²

As a companion piece to this search for instances of $\gamma\gamma$ in Greek = *gg*, it would be instructive to examine the cases in which the symbol γ by itself, that is without a following γ , occurs with the value *n*—what, in fact, an older generation of scholars would have called *Agma Solitarium*. It cannot occur intervocalically in Greek, as in the English (*paper-*)*hanger*, but arose before a nasal. This ground, however, has been well worked already, and Sturtevant indeed finds here the starting-point of the convention of writing γ for *n*. The progression $\gamma\acute{\iota}\gamma\gamma\omicron\mu\alpha\iota > \gamma\acute{\iota}\nu\omicron\mu\alpha\iota$, through an intermediate stage $\gamma\acute{\iota}\nu\eta\omicron\mu\alpha\iota$, has been generally accepted, e.g. by Schwyzer, Boisacq and Sturtevant²; but this has been rather convincingly denied by Ralph L. Ward in a recent article in *Language*.³ Ward, however, does not deny the occurrence of the unglottalized velar nasal before μ . That this must occur can be shown in the following way:—

$$\text{παύ-ομαι is to } \begin{cases} \text{πέ-παυ-μαι} \\ \text{πέ-παυ-σαι} \text{ as} \\ \text{πέ-παυ-ται} \end{cases}$$

¹ I wish here to express my thanks to Dr. Atkinson for his interesting communications. If his 'law' is to hold good for *Βρόγγος*, he must account for the loss of the following nasal.

² For instance, Ptolemy gives *Γάγγανοι* as the name of a tribe in the West of Ireland, and uses a similar name (doubtful text) in referring to the Lleyn peninsula (Carnarvonshire). T. F. O'Rahilly (*Early Irish History and Mythology*, 1946) writes *Gangani* (p. 10), probably correctly. But there is a chance of its being *Gaggani*.

³ XX, 2 (1944). Ward's main points are that other words with *-gn-* (e.g. *ἀγνός*) do not show this development and that the evidence of Modern Greek is adverse.

$$\phi\theta\acute{\epsilon}\gamma\gamma\text{-}\omicron\mu\alpha\iota \text{ is to } \begin{cases} * \acute{\epsilon}\text{-}\phi\theta\epsilon\gamma\gamma\text{-}\mu\alpha\iota > \acute{\epsilon}\phi\theta\epsilon\gamma\mu\alpha\iota \\ * \acute{\epsilon}\text{-}\phi\theta\epsilon\gamma\gamma\text{-}\sigma\alpha\iota > \acute{\epsilon}\phi\theta\epsilon\gamma\chi\alpha\iota \\ * \acute{\epsilon}\text{-}\phi\theta\epsilon\gamma\gamma\text{-}\tau\alpha\iota > \acute{\epsilon}\phi\theta\epsilon\gamma\kappa\tau\alpha\iota \end{cases}$$

The forms in the last column are obviously little more than simpler ways of writing the consonantal groupings (and indicating some loss of voice in the 2nd and 3rd persons): the 1st person $\acute{\epsilon}\phi\theta\epsilon\gamma\mu\alpha\iota$ will thus be *ephthengmai*. The only question that arises is the extent of this process. Did γ before μ always become *agma*? The spelling *πραματεία* for *πραγματεία* in Hellenistic papyri has been held to suggest that it did; but I am inclined to believe that it did not, in such a case as this where the γ represented an original gamma without a nasal. In $\acute{\epsilon}\phi\theta\epsilon\gamma\mu\alpha\iota$ there was a nasal in the root, or at any rate an infixed nasal, whereas there was no nasal to start with in $\acute{\pi}\acute{\epsilon}\phi\lambda\epsilon\gamma\mu\alpha\iota$ (from $\acute{\pi}\lambda\acute{\epsilon}\kappa\omega$). The onomatopoeic letter-name $\acute{\alpha}\gamma\mu\alpha$ is sometimes cited as further evidence of the extension of nasalization. But this rests on the assumption that this word is the same as the noun $\acute{\alpha}\gamma\mu\alpha$ from $\acute{\alpha}\gamma\gamma\upsilon\mu\iota$. I believe that the letter $\acute{\alpha}\gamma\mu\alpha$ (indeclinable)—? or $\acute{\delta}\gamma\mu\alpha$ —pronounced *angma*, stands with $\acute{\epsilon}\phi\theta\epsilon\gamma\mu\alpha\iota$, while $\acute{\alpha}\gamma\mu\alpha$, *-τος* ‘fragment’ is *agma* like $\acute{\pi}\acute{\epsilon}\phi\lambda\epsilon\gamma\mu\alpha\iota$ (*perplegmai*).

One point more. If, as we have seen, $\text{-}\gamma\gamma\text{-}$ can, on rare occasions, have the value of *gg*, would it ever have been distinguished from the conventional $\text{-}\gamma\gamma\text{-}$ by a diacritical mark? It seems a fantastic hope to search for this. Yet I have found that in Lobel’s Sappho (1925), which is mostly a transcript of papyrus fragments, Lobel records in the critical apparatus that the name *Γογγυλα* in v, 4 is written *Γογ’γυλα* in the papyrus. Lobel does not comment on this. The same manner of writing this name also seems to occur in i, 11, but there the book-text is fragmentary. Now this lection sign ‘, which was known as the *κορωνίς*, was employed to indicate separation. A familiar use is in Crasis, to show that $\chi\omicron\upsilon\tau\omicron\varsigma$ is to be divided into the two words *καί* and

οὔτος.¹ Elsewhere in Lobel's edition of Sappho and in his Alcaeus I find the *κορωνίς* used (i) oftenest, where our printed texts similarly mark elision—that is, showing that two closely connected words are to be separated, (ii) occasionally, where syllabic division is necessary, e.g. *ἀΐδρεια*, (iii) a few times between words to show their separation. Therefore it appeared feasible that this very strange *κορωνίς* in *Γογ'γυλα* might indicate that the gammas were to be sounded apart from each other, which would seem to imply that they were both gammas and not agma gamma. It is also to be remembered that Sappho's dialect was Aeolic, a characteristic of which was its doubled consonants. But Sir Harold Bell, to whom I referred the point and who has shown himself most interested and helpful, tells me that nothing can be deduced from this *Γογ'γυλα* here, because the papyrus in which it occurs happens unluckily, to be one of the latest in Lobel's collection, sixth century A.D. or even seventh, and by that time, he informs me, scribes were using lection signs indiscriminately.² But he adds that the lectional signs have not yet been made the object of a systematic study, and it may be that some evidence will still turn up to show that our coronis here is the blind memory of something that was once significant.³

¹ A common error among editors is to write *χοὔτος*. The coronis, as Housman pointed out (*C.R.*, xxxix, p. 80), is distinct from the smooth breathing, though identical with it in form. In *χοὔτος*, the aspiration is shown by the *χ*, the crasis by the coronis. Actually, these remarks *passim* refer more strictly to the *ἀπόστροφος* than to the *κορωνίς* proper, but the latter term is commonly used.

² Sir Harold Bell gives me the following examples from P. Oxy. 2235 (A.D. 598): v. 12, . . . *υ'νεοφουτα*; v. 16, *γεουχικα'αγροικικα*; v. 19, *τας'συνθηθειας*; v. 20, *δε'δεδωκεναι*. In the first three of these, the coronis, as well as separating the words, is a sign-post against gemination. Some medial examples are: P. Oxy. 1653 (A.D. 306) *βανλ'λιου*; P. Oxy. 1881 (A.D. 427) *εγ'γραφου* (but *σιγγουλαριων*); P. Oxy. 1882 (A.D. 504) *εγ'γυησαντο, αμ'μωνικος*; P. Oxy. 1837 (early VI) *αγ'γιον, πεμ'πι* (but *σινγουλαριος*). It is obvious that, whatever the original use of the coronis, the later employment tended to be indiscriminate.

³ Since this was written I have discovered that J. M. Edmonds was the first to publish this fragment in England in a little book entitled *The New Fragments of Alcaeus, Sappho and Corinna* (Cambridge, 1909), and he had the following note on v. 4: '*M. γογ'γ* i.e. Goggyla not Gongyla? For *gg*,

To sum up :—

We have found $\gamma\gamma = gg$ in the following :

1. In literature, in a poetical form, *κἀγ γόνυ*.
2. In Attic literary prose, *ἔγγονος* 'grandchild'.
3. In Attic inscriptions where (e.g.) *ἐγγράφω* is the correct phonetic representation of what was traditionally spelled *ἐκγράφω* in literary texts following the etymology.
4. In the papyri, *ἔγγονος* 'descendant'.
5. In inscriptions other than Attic some sporadic instances, e.g. late Cretan *πρεγγευτάς*.
6. In transliterations of foreign names, e.g. 'Αγγαῖος, *σουγγεστίονα* from Hebrew and Latin for certain, and, possibly, hitherto unsuspected instances from lost languages.

Contrariwise, we have noted gg represented in Greek in the following ways :—

1. Regularly in inscriptions and transliterations, and abnormally in the other types listed above, by $-\gamma\gamma-$.
2. Regularly in literary texts and in the papyri, and exceptionally in Thessalian *ποκγραψαμένας* and Boeotian *Μέκγας*, by $-\kappa\gamma-$.
3. Sometimes in inscriptions, by a confusion, by $-\nu\gamma-$, as possibly in Thessalian *ἀνγρέω* and in Attic *Σίνγιοι*.
4. Rarely by $-\gamma-$, as in Cretan *πρειγευταί* and in imprecise transliterations as in *ἄγεστα* (*vide infra*).¹

in Boeotian, cf. Meister-Ahrens, p. 266 ; in Lesbian when *κἀτ* became *κἀγ* before γ , $g + g$ prob. resulted, not $ng + g$; cf. *κἀκ κεφάλας* (*sic*) Alc. 41 and Sa. 44 *κἀγ γένυων* (*Μ. καγγωνων*).¹ This query of Edmonds seems to have passed unheeded.

¹ Throughout we have used the terms 'geminatio' and 'double- g ' without reference to phonetic theory. I should prefer the terms 'lengthening' and 'long g ', as I adhere to the view that so-called doubling is only the prolongation of the 'moment' of tension of a single plosive.

Lengthening rather than true doubling is indicated by several factors in Greek and Latin. Geminated consonants were written singly in the earliest stone inscriptions, and approximate transliterations of *geminata* often show only a single consonant. I find the following glosses in Suidas. *ἄγεστα· πολεμικὸν μηχανήμα ἐκ λίθων καὶ ξύλων καὶ χοῦ ἐγειρόμενον . . .* (the same under *ἔγεστα*). *ἄκεσσα· Ῥωμαϊκόν τι μηχανήμα . . . οἱ δὲ Ῥωμαῖοι ξυνέθεσαν τὴν λεγομένην ἄκεσσαν τῇ Ῥωμαίων φωνῇ*. These must all be attempts to render the Latin *aggestum*.

HENRY SWEET

PRESIDENTIAL ADDRESS DELIVERED TO THE PHILOLOGICAL
SOCIETY ON FRIDAY, 10TH MAY, 1946

By C. L. WRENN

As members of the Philological Society, we have all, no doubt, been recollecting that 15th September last was the centenary of the birth of Henry Sweet, one of the Society's greatest pioneer leaders and also, in my opinion, the greatest philologist that our country has so far produced. It happens also that this anniversary meeting is the first occasion that wartime conditions permit us to commemorate, besides Sweet's centenary, that of the foundation in 1842 of our Society itself. A perusal of the early years of the Society's proceedings, but most especially those between 1869 and 1885, when Henry Sweet's influence was a dominant factor, will remind us how large and inspiring were the plans and projects of the Philological Society at a time when, to think of English Philology alone, it numbered among its leading members Henry Sweet, Walter Skeat, James Murray, F. J. Furnivall, A. J. Ellis, and Henry Bradley. The greatest of all the Society's projects, its dictionary of the English language, was brought to fulfilment now nearly twenty years ago. Sweet, when he was our President, used to think of the Society as one day having branches and keen workers all over the country, including a number of branches in London; and it seems to me that if we are as a Society to recreate anything of the inspiration and pioneering spirit for which Sweet stood, that the time has now come to review the principles and aims for which we should stand and to give to ourselves once more some all-pervading central project of practical and living philology which may again do for us something of what the Society's dictionary accomplished.

I can think of no better way of recalling the Society in the above sense than by attempting to-day to remind you

of what those things are for which English, and indeed European, Philology must ever remain grateful to Henry Sweet, and to recall something of those qualities and achievements which made him the manner of man he was. I have lately been looking at the astonishingly small amount of biographical and appreciative material which Sweet's admirers have left us, and one small point in particular strikes me as of interest. In Herrig's *Archiv*¹ for the year 1913 there appeared two commemorative articles on Sweet, one by the late Henry Cecil Wyld and the other by the no less distinguished German Anglicist, Alois Brandl. In both of them the death of Sweet evoked exactly the same mental image. Both of them speak of the sun having ceased to be visible in the philological world, leaving only an uncertain twilight. Indeed the metaphor is not so frivolous as it may seem to our more sophisticated minds after the passage of thirty years; for English philology, and perhaps one might say Comparative Indo-European philology, too, have remained since Henry Sweet's day lacking for the most part in the light and vitality of which his name may stand as a symbol. Only, I think, in the one special path to which he above all others continually pointed, namely that of phonetics as the fundamental and indispensable basis of all philological study, has the "twilight" been, to some extent, brightened: for in the work of the phoneticians and linguists, especially that of Professor Daniel Jones and Professor Firth, in building up a "living philology in London", work has been carried on in which Sweet must have rejoiced. There is, of course, at least one other aspect of English philology which has remained active among us here in London, of which Sweet would certainly have approved, namely, medieval studies of a humaner kind, like those carried on by W. P. Ker and R. W. Chambers. Nevertheless, despite these qualifications, I think it is true that it is high time we looked back at and sought once more

¹ *Archiv für das Studium der neueren Sprachen und Literaturen. Begründet von Ludwig Herrig. Herausgegeben von Alois Brandl und Heinrich Morf. Neue Serie XXX, 1913.*

to realize the ideals, the principles, and the methods which Henry Sweet represented and which, as President of the Philological Society, he constantly urged upon its members. His presidential address for the year 1877, in which he spoke of what the Society should aim at, while widely reviewing the philological position of the moment, remains a most stimulating document to read.

Most of the things about Henry Sweet to which I wish to recall your attention will be clearly indicated by a brief commentary on the chief facts of his biography. An altogether satisfying sketch of the biographical facts will be found in Dr. Onions' article in the *Dictionary of National Biography*,¹ which is a model of conciseness and disciplined enthusiasm. Born in 1845, Sweet had, at the age of 19, a period of first-hand acquaintance with the then rising German philology at Heidelberg University; but even before that he had found an interest in studying the phenomena of the pronunciations of his acquaintance. While in a mercantile firm's office, it seems probable that he first came into contact with the two initial stimuli which set definitely the direction of his life's work: Bell's *Visible Speech*,² published in 1867, first showed him the thrilling scientific possibilities of the accurate recording of the facts of spoken language, and Rask's *Anglo-Saxon Grammar*,³ published originally in Sweden in 1817, but by 1867 available in English in Thorpe's translation,⁴ first led Sweet to his interest in English, Germanic, and comparative philology; and the same Rask's pioneer work on spelling reform as applied to Danish, his *Retskrivning*,⁵ published in 1826, soon afterwards set Sweet thinking of the problems of spelling and of its reform. It would not be too much to say

¹ *Supplement*, Twentieth Century, 1912-1921.

² Melville Bell: *Visible Speech, the Science of Universal Alphabets or Self-Interpreting Physiological Letters for the Writings of all Languages in one Alphabet*, London, 1867.

³ Rasmus Rask: *Angelsaksisk Sproglaere tilligemed en kort Laesebog*, Stokholm, 1817.

⁴ *Transl. from the Danish by B. Thorpe*, Copenhagen, 1830.

⁵ Rasmus Rask: *Retskrivningslaere*, Copenhagen, 1826.

that between them Melville Bell and Rasmus Rask made Sweet begin to be a phonetician, an Anglicist, a grammarian, and a comparative philologist.

The result of these years of schooling and of business, when he was, as it were, beginning to find himself, was the decision to enter Balliol College, Oxford, at the unusually mature age of 24: and here as a freshman he contributed to the *Transactions of the Philological Society* for 1869 the *History of the "Th" in English*. This was a work more fully developed in 1871 in the first appendix to his edition for the Early English Text Society of King Alfred's Translation of St. Gregory's *Cura Pastoralis*, entitled *The Old English Ð*. Is it not remarkable that this article of 1869, as well as its enlarged development two years later, was the work of an undergraduate and yet was of such a kind as to form part of the foundation, however little remembered now, of our knowledge of English historical philology? Indeed, there are passages on the question of Old English *þ* and *ð* and similar "grammatical changes", soon to be explained by Karl Verner in the law that goes by his name, which would seem all but to anticipate Verner's discovery, failing to cover only its last and final stage. Moreover (and this, of course, has been finally recognized), in the apparatus contained in Sweet's edition of the *Cura Pastoralis*, the foundation of an Old English Dialectology, and especially of our knowledge of the dominant West Saxon, was laid, so that it was but natural that Cosijn should dedicate his Early West Saxon Grammar¹ to him and that Sievers, the greatest of German Anglo-Saxonists (and indeed perhaps of Germanic philologists), should begin an early sentence in the preface to the second edition of his Anglo-Saxon Grammar² with the words "Nach den bahnbrechenden Arbeiten von Henry Sweet . . .".

Indeed, as Sievers acknowledges in this preface, the whole of the work hitherto done on Anglo-Saxon Grammar and

¹ P. J. Cosijn: *Altwestsächsische Grammatik*, The Hague, 1888.

² Eduard Sievers: *Angelsächsische Grammatik*, 2e. Auflage, Tübingen, 1886.

dialects had to be entirely revised as a result of Sweet's work. The appendix to the *Cura Pastoralis* is also noteworthy as making a new phonetic approach to some Old English consonant relationships in the light of the observed facts of living languages: this linking of the past with the living present was to be Sweet's dominant attitude throughout his life.

In the *Transactions of the Philological Society* for 1873 Sweet began that series of studies in the pronunciation of living languages which marked a new departure, in that for the first time pronunciations were studied and presented with full scientific phonetic descriptions and knowledge obtained by Sweet from first-hand observation and real contact with native speakers from the countries concerned. Beginning with Danish, we find in succeeding volumes of the *Transactions* his studies in the pronunciations of Russian, Dutch, Portuguese, the North Welsh of the Bangor district, and Swedish. All of these, but especially the Swedish and the North Welsh, have been admired by those best qualified to judge of them and remain in their kind exemplars of permanent value for their scientific method and vitality.

In 1874 there appeared, first in the *Philological Society's Transactions*, and a little later in book form, Sweet's *History of English Sounds*. It was characteristic of him that in the enlarged and revised edition of 1888 he set forth in a preface the defects of his earlier knowledge and the immense strides which the study of the subject had taken in the period between the two editions. Here for the first time the historical facts of English phonology were set forth by a scientific student in the light of the facts of the living language: and despite the passage of time, with its broadening of our knowledge, Sweet's pioneer book retains its interest and its value.

In the *Transactions* for 1876-8, Sweet's article entitled *Dialects and Pre-historic Forms of English* first marked out that study of the earliest Old English material as a basis for the study of Anglo-Saxon dialectology which was to bear such marvellous fruit in his *Oldest English Texts* of 1885, and completed the work so well begun in the *Cura Pastoralis* of

1871. It was characteristic of Sweet that for the seven years between 1878–1885 he devoted himself entirely and singly to this one study.

Sweet had left Balliol after the usual four years, which he spent in philological growth, thereby neglecting those studies which led to a degree in Greats, and there can be little doubt that his place in the fourth class, combined with his almost violent candour, made any hope of recognition or advancement in Oxford vanish away. This (1873) was the year in which W. H. Forbes, A. L. Smith, and Charles Plummer got their 'firsts'. In 1876, therefore, when, knowing himself to be already the leading philologist in England, he applied for the Chair of Comparative Philology at University College London (an unpaid post), it was not altogether surprising that he was not appointed to the post. This marks the beginning of that series of academic disappointments and rebuffs which, as we shall see, had their effect on Sweet's later work. In the same year was published his still world-famous *Anglo-Saxon Reader*, in which he showed by his choice of just the right selections, verse and prose, that he had literary judgment as well as imagination as a potential teacher. For his choice of passages to be read by the student has never been bettered.

In 1877 Sweet produced *A Handbook of Phonetics, including a popular Exposition of the Principles of Spelling Reform*. This book, as has often been remarked, taught phonetics to Europe and made England the birthplace of the modern science. A paper on the *Oldest English Texts* in the *Transactions* for 1879 gave a further foretaste of the great 1885 edition of these documents.

The year 1882 saw the first appearance of Sweet's *Anglo-Saxon Primer*, which began that series of teaching manuals for beginners in English and allied studies which at once helped him to supplement his income in the absence of any academic recognition, and demonstrated that he was a born teacher of the highest quality. There followed in 1884 his *First Middle English Primer*, in 1885 his *Second Middle*

English Primer and his *Elementarbuch des gesprochenen Englisch* (Engl. Transl., 1890), and in the same year his *Selected Homilies of Ælfric*. His *Primer of Old Icelandic* appeared in 1888. In 1883 the Early English Text Society produced his edition of King Alfred's Version of *Orosius*, and in 1885 the *Oldest English Texts* was published. Each of these was planned to be followed by a second volume, which would have contained the necessary critical and exegetical apparatus. Especially is it a loss to English philology that the grammatical material which should have formed the companion volume to the *Oldest English Texts* never appeared. The *Oldest English Texts* was followed two years later by *A Second Anglo-Saxon Reader, Archaic and Dialectal*, which contains the more important pieces from the *Oldest English Texts* for the student. But this, too, clearly requires grammatical and other apparatus, which were never added.

The year 1885 marks in its effects, though not quite chronologically, a turning-point in Sweet's career: for with the publication of the *Second Anglo-Saxon Reader*, he more or less abandoned publication in those Anglo-Saxon studies which alone should have led to his recognition as England's greatest Anglo-Saxonist. Though his *A Student's Dictionary of Anglo-Saxon* was not published till 1897 its material had been collected many years earlier, and his *First Steps in Anglo-Saxon* of the same year belongs to the series of manuals for beginners mentioned above. Space does not allow me to discuss Sweet's great pioneer war in the method of teaching Anglo-Saxon. But his views are clearly developed in the successive editions of his *Reader*, in their prefaces and in the changes he made in the content and presentation of the book. Had his ideas on how Anglo-Saxon should be *learnt* been properly followed, the subject would now be on a far more satisfactory basis than it is.

Just before beginning his seven years' absorption in the *Oldest English Texts*, Sweet had published in the *Transactions* (1876) his paper entitled *Words, Logic and Grammar*, which showed at once his pioneering ability in what may be termed

philosophical grammar. It was, therefore, not perhaps unexpected that it was to grammar, especially English grammar, that Sweet turned for his dominant interest after he had turned from his more concentrated Anglo-Saxon studies. I have called 1885 a turning-point in Sweet's development. The outward event which perhaps more than anything occasioned this was his astonishing failure as a candidate for the then newly-established Merton Professorship of English Language and Literature at Oxford. As a result of this failure, Sweet continued for many more years, as he had done since leaving Oxford, to work alone and without formal academic recognition or ties; and this, especially the absence of the opportunity which he longed for of practical experience as a university teacher, has left its impression in one way or another almost everywhere in his work. It was characteristic of Sweet, with his extraordinary singleness of mind and unhesitating candour, that he should think it sufficient merely to draw the attention of the electors to the new chair at Oxford to the scope and nature of his published work without any effort to enlist the testimonials or other support of influential scholars. Indeed, it appears that he did not even think it necessary to let his friends know that he had set his heart on the Oxford chair. He just took it for granted that the Oxford electors, being intelligent men, would appoint the obviously right man. But—so Brandl¹ informs us—Zupitza (probably the leading German Anglicist at the time), and Furnivall, then the strongest philological force in England, had agreed in supporting another candidate without knowing of Sweet's wishes. I think the photograph published in the *Archiv* for 1913 indicates in Sweet's character a quality of suspiciousness and, perhaps, his lack of worldly knowledge. Certain it is that he could never forgive those who failed to see and support his merits: and throughout his later life he increasingly imagined that all failures of recognition or any sort of academic

¹ Alois Brandl, loc. cit., 1913.

opposition were actuated by personal or otherwise wrong motives.

How the circumstances of Sweet's life were by this time tending to turn his natural simple candour into a less likeable and less exact biting frankness, is illustrated by some comments on the general state of philology in his *Report to the Philological Society for 1882*. Here he speaks of "the drawing-room school of philology" of which "our worthy Max Müller" is the leading exponent; of a "soap-bubble school" and of how we should prefer the "plain loaf" of Paul to the "toffee and Turkish delight" of the rest of the contemporary philologists. Unpublished (and unpublishable) anecdotes still circulate in Oxford—where Sweet lived fairly continuously from 1895—of his violence of speech and of the contempt which he could show to even the highest in the University if they seemed to him to be lacking in his own unflinching candour. The effect of this continued series of academic disappointments on Sweet's work as a philologist was, I think, especially of two main kinds—the one an unmixed disaster, but the other, perhaps, a gain. The constant lack of merited recognition in his own country (he had early been taken for the man of genius he was on the Continent) caused him to become dissatisfied with one great piece of work after another in which he had done brilliant pioneering, and to turn to another field of study before completing a promised task. Thus, his *Oldest English Texts* should have had a completing volume of linguistic apparatus, his *Second Anglo-Saxon Reader* should have had grammatical and other material for the needs of students, his *Orosius* lacks its other volume of translation and apparatus of various kinds. Again, as early as 1877, Sweet had ready a comprehensive work called "Studies in the Comparative Grammar of the Living Teutonic Languages", based on work of which a foretaste had appeared in the *Transactions* for 1876; but he abandoned this important work and never troubled further about it, apparently because he could not find a publisher as quickly as the value of the work should have implied. Sweet's *Report*

on the *Practical Study of Language*, published in the *Transactions* for 1883, should have been the forerunner of a book of outstanding importance which no one but he could have written. Incidentally, this *Report* is printed in Sweet's own improved spelling. For, ever since his first looking into Rask's work on orthography, his *Retskrivningslaere*, already mentioned, Sweet—like all the best English philologists of the last half of the nineteenth century—had taken a keen and active interest in spelling reform. His facsimile reproduction in 1883 of the *Epinal Gloss*,¹ too, led to unrealized expectation of a full work on this text. On the other hand, Sweet's continued freedom from any sort of academic ties enabled him to spend far more time on pioneering scholarship than would have been possible for a university teacher; and, while he lacked the opportunity of studying the results of his Old English work as a practising teacher, he could at least teach practical phonetics and allied subjects privately and in his own way outside the universities. It is, then, incompleteness which is the worst effect of Sweet's academic reverses, and more time and freedom for his own work which is, to some extent, their compensation. Yet I may have laid too much emphasis on what looks like frustration in dwelling upon his abandonment of uncompleted projects. It was perhaps often simply that he wanted to get on to something else, whether people liked it or not.

On the whole, it may fairly be said that up to about the time of his devastating failure to obtain the Merton professorship in 1885, Sweet's work had been mainly in the fields of applied phonetics and in early English linguistic studies. From this time onwards, while his productive interest remained in phonetics (as witness the English version of his earlier *Elementarbuch des gesprochenen Englisch* in 1890 and the revised edition of his *Primer of Phonetics* ² in the same year), the interest which he had always had in the theory and

¹ *The Epinal Gloss with Photolithograph*, published for the Philological Society and the Early English Text Society, London, 1883.

² Again revised in 1902, and, with notable improvements, in 1908.

practice of grammar and in comparative philology and the theory of language, from now on became more absorbing as he turned away from his intensely strenuous but incomplete work on Anglo-Saxon.

A few typical excerpts from some of Sweet's prefaces—which are often exceptionally autobiographical or personally revealing—will serve to illustrate the foregoing remarks.

In the preface to his edition in 1871 for the Early English Text Society of the *Cura Pastoralis*, the Baliol undergraduate remarks (p. v, footnote 1), "I use 'Old English' throughout this work to denote the unmixed inflexional stage of the English language, commonly known by the barbarous and unmeaning title of 'Anglo-Saxon'." This preface is especially worth reading, nevertheless, as a real bit of a scholar's intellectual autobiography; and it shows Sweet already the master of all the earlier lexicographical work on Old English, as well as of the history of early English studies.

In his *Handbook of Phonetics* (1877) he writes in the preface:—"If our present wretched system of studying modern languages is ever to be reformed, it must be on the basis of a preliminary training in general phonetics, which would at the same time lay the foundation for a thorough practical study of the pronunciation and elocution of our own language—subjects which are totally ignored in our present scheme of education." Here Sweet's life-long fundamental belief in living phonetics as the basis of all philological or linguistic study is brought out.

The preface to the *Oldest English Texts* (1885) is especially characteristic. On p. vi he writes:—"Meanwhile, my interest in the work had been flagging more and more. When I first began it, I had some hopes of myself being able to found an independent school of English philology in this country." He then goes on to speak of the "purveyors to the swarms of young programme-mongers turned out every year by the German universities, so thoroughly trained in all the mechanical details of what may be called 'parasite philology' that no English dilettante may hope to compete with them

except by Germanizing himself and losing all his nationality." . . . "I may also remind my critics that I am not paid for my work, that I have no official position to make me responsible to anyone, and that all my scientific work is a free gift to my countrymen, or, rather, to the Germans."

Besides his strong and well-justified feelings on his extra-academic position, this passage brings out one of Sweet's foibles—his Germanophobia and his strong nationalist bias. He held—and with some reason, it may be—that a scholar would make his best contribution to knowledge with the background of his own national culture and character. But his deliberate adoption in his *Old English* and *Old Icelandic* books for beginners of a terminology and framework largely of his own in opposition to what the German philologists had made the established convention, was less fortunate. For he never wrote the *Anglo-Saxon* or the *Old Icelandic* works on grammar that would have explained or justified his departures from received practice, and the beginner brought up on Sweet's elementary primers and Readers will later feel the lack of that comparative Germanic background which Joseph Wright and others have less agreeably and without Sweet's vivid practicalness made available to English students. Sweet—a great creative scholar—seems at times almost to have deliberately nourished in himself a strange seed of insularity, whereas Joseph Wright—lacking Sweet's originality and depth of scholarship—systematically made available to English students what the Germans had done (while tending in the sequel to encourage those mechanical philological methods which Sweet so constantly reviled). But Sweet's turning away from a field of study in which he had met with academic obtuseness in the pundits, left it to Wright to do for English and Germanic philology among university students what he himself could have done so much better.

In the preface to the revised edition of 1888 of his *History of English Sounds*, Sweet writes:—"Now that the Germans

are beginning to take up practical phonetics, its importance is beginning to be recognized in the land of its birth" (p. vii).

The first important fruit of his turning to grammar and more general philology, which—as I have said—marked his later life after the critical year 1885, was the revision of his *History of English Sounds* of 1888. This takes account of all that had been done since the first edition, and its Preface is a veritable philologist's autobiography and confession of faith. Sweet explains in it with that simple candour which is one of his great charms as well as the cause of some worldly disasters, just wherein his former work showed ignorance or error, and just what and how he had been learning since. The book remains the best work of its kind, despite the progress of knowledge in some directions since. Its *Preface* also emphasizes—what was already apparent in the 1877 edition—that Sweet may virtually be regarded as a co-equal with Baudouin de Courtenay in discovering the phoneme. One cannot be sure whether Sweet or de Courtenay was the first to realize this new and most important conception, since they worked—the one in London and the other in Kazan in South Russia—in entire ignorance of each other's studies. But in 1877 Sweet had clearly recognized, by his distinction of "Broad Romic" symbols to represent in effect functional features or units of speech in English, the idea which is at the base of de Courtenay's elaborately reasoned explanation of the phoneme, and 1877 was the year when probably both scholars definitely reached their findings—Sweet in print only by implication and as a purely practical aid, and the Frenchman theoretically and at length¹ though only in then unpublished

¹ The distinction between phoneme and phone is to some extent implicit in Baudouin de Courtenay's Russian essay on the dialects of Italian Slovenes entitled *Opyt Fonetiki Rez'yanskikh Govorov* (Petersburg and Warsaw, 1876): but it was first clearly drawn by his Polish pupil Kruszewski in a Russian essay of 1879. De Courtenay further touched on it in his Russian study *O nekotorykh Otdelakh sravnitel'noi Grammatiki slovyanskikh Yazykov* (Warsaw, 1881), and fully elaborated with somewhat changed and more psychological approach in his famous Polish work *Próba Teorji Alternacyj fonetycznych* (Cracow, 1895), and its German version *Theorie phonetischer Alternationen, ein Capitel aus der Psychophonetik*, of the following year

lectures. In his preface of 1888 Sweet writes:—"It will be observed that I use the less accurate 'Broad Romic' as a kind of algebraic notation, *each letter representing a group of similar sounds*" (p. x). The italics are my own, because here I think Sweet clearly distinguishes between the *phonemes* which alone are necessary for the writing of the sounds of a language and the *phones* (the actual sounds) which would be heard in the speech of separate individuals. In other words, a distinction is implied like that of de Saussure between *la langue* and *la parole* or of Mr. A. H. Gardiner between *speech* and *language*.¹

In 1892 Sweet published his *Short Historical English Grammar*—still the best book of its kind—and the same year saw the publication of the first and much larger volume of his altogether outstanding work on English grammar, *A New English Grammar, Logical and Historical*.

This contains an *Introduction* dealing with fundamental definitions and historical concepts which remains unsurpassed for clarity and pointedness, followed by *Phonology* and *Accidence*. This volume is a philosopher's grammar as well as a working student's: and though terminologies rise and fall and fashions in teaching have rather passed it by, it lives in undiminished value as the best guide to its subject for those wise enough to use it. Its second part, the little volume on *Syntax*, appeared in 1898. Like its predecessor, within its limits it remains the best work of its kind and was a pioneer in a field since for the most part neglected or misunderstood. Clearly expounded English syntax of the present day in its proper historical perspective and without merely technical impedimenta is Sweet's gift to a somewhat unresponsive academic public in this volume: and even the analytic method and new terminological exactitudes of Jespersen

(Strasbourg, 1895). Cf. the Polish memoir of Baudouin de Courtenay by Ulaszyn (Poznan, 1934). An excellent brief notice of the work in this kind of Baudouin de Courtenay, the greatest of Polish philologists, is Professor J. R. Firth's *The Word Phoneme* in *Le Maître Phonétique* for April-June, 1934.

¹ Alan H. Gardiner: *The Theory of Speech and Language*, Oxford, 1932.

have scarcely lessened the current value of his work on syntax.

But while already turning in this way to wider linguistic studies, Sweet published about this time, in 1897, in *The Student's Dictionary of Anglo-Saxon* (Oxford), the selected fruits of a life-long lexicographical culture. From almost his schooldays he had been collecting this material, to which he never ceased to add: and though the *Dictionary* is economical of space and lacks the full references which the student of to-day would wish to have, for accuracy with clarity and effectiveness in its definitions it remains quite unchallenged. With more liberal publishing and other facilities, how magnificent might have been the dictionary of which the published volume should have been a foretaste: for it seems clear that Sweet had a vast quantity of further material for the work. Indeed, it is probably one of the many tragic consequences of his academic "misfittingness" that he did not preserve this, at least for the benefit of future lexicographers and editors.

After producing his still immensely useful *First Steps in Anglo-Saxon* in the same year, Sweet had turned finally to wider fields. The year 1899 saw the completion of *The Practical Study of Languages*—a revolutionary document in the history of modern language teaching which remains dynamic. But the most astonishing, as also the most important new result of his enlarged interests came in 1900, when his little "popular" volume, *The History of Language* (Temple Primers), was published. For this showed Sweet as a linguist and a comparative philologist of genius. Though intended for a wider than academic public and therefore extremely condensed and concise, this little volume seems to me in many ways to present the fine fruit of Sweet's philological growth. He had remained true to his life-long faith in the phonetics of living languages as the basis of all linguistic study, and had come to realize the great importance of distinguishing between the colloquial and the literary styles in language, as we are reminded in the *New English*

Grammar: and it is characteristic of him that he writes in its preface (p. xii) that "An essential feature of this *Grammar* is that it is on a phonetic basis. It is now generally recognized, except in hopelessly obscurantist circles, that phonology is the indispensable foundation of all linguistic study, whether practical or scientific—above all of historical grammar". By this time he had been learning Arabic and Chinese, and was the first philological scholar in this country to take active cognizance of the new fields that were opening as it were on the edges of Indo-European philology through the rising speculations and discoveries on the possible affinities of Indo-European with Sumerian, Finno-Ugrian, Altaic, and even Semitic languages. In a preface which has all the freshness and clarity of the best of Sweet's work, he chastises the complaisant ignoring in England of the widening fields of Indo-European scholarship. Of Halévy, who had denied the reality of Accadian and Sumerian as linguistic facts, he writes (p. vi): "It would, for instance, be unreasonable to ask me to cut out all reference to the most ancient language in the world, merely because a small but noisy band of paradox-lovers and hunters after notoriety still profess to disbelieve in the existence of a 'so-called Accadian or Sumerian language'." Sweet believed in placing important hypotheses before the world even though they were but hypotheses: and with his unselfconscious candour was ready to assert that it might well happen that he alone in all England had found the true view of a given subject. So, in the same preface to his *History of Language* he writes (p. vi): "He (the writer of such a book) is bound to express his opinion definitely on all questions on which his mind is made up, even if he stands alone in his views." Sweet may, I think, fairly be said to have been the first Englishman to have attained to full possession of all that was then known in the world of linguistics and comparative philology. Yet here, too, it was the lack of academic support and opportunity which forced him to give his scholarship in comparative philology and general linguistics to the world only in the

form of a popular hand-book. Earlier, he had always been able to release his discoveries and pioneer theorizing to a limited public in the form of the famous *Reports* to the Philological Society: but from about the time of the crucial loss of the Merton chair he seems to have practically ceased to take any important active share in the Society's work. Without academic backing and position, it was for him now almost a choice between the hand-book and silence.

It is worth while, perhaps, to mention that in this next year 1901—the year of the most incredible of all his academic defeats (in the contest for the Professorship of Comparative Philology at Oxford)—there was privately printed a lecture *On Shelley's Nature Poetry* which Sweet had delivered thirteen years earlier in reply, it is said, to the challenge of a friend who doubted his ability to express real appreciation of literature or poetry. For this paper does show that for Sweet, as perhaps for all really outstanding philological scholars, the enjoyment of some of the aesthetic qualities in language was a necessary part of his equipment. He could enjoy poetry of the Romantic kind: and Brandl has left it on record¹ that he delighted to read Wordsworth with his pupils in the early days when he taught English and its phonetics and pronunciation with that verve and practical effectiveness so well portrayed by Mr. Bernard Shaw in his dramatic character of Professor Higgins in *Pygmalion*. Brandl has left us, in the obituary article already quoted, a picture of Sweet as a teacher of English to foreigners and others which corresponds remarkably (allowing for reasonable artistic licence) with Mr. Shaw's memorable picture on the stage—even to the “tongue-gymnastics” and the use of Bell's *Visible Speech*.¹ Sweet was, then, no “narrow philologist”: nor, as his lecture on Shelley shows, was he one of those who would “compartmentalize” and separate the study of language from that of the literature which it produced.

His growing interest in the theory of linguistic origins and

¹ Brandl, loc. cit.

in the widening of the Indo-European field is further shown in a short article which deserves to be far better known than it is, published in 1900 at Liverpool University in the short-lived series *Otia Merseiana*, entitled *Linguistic Affinity*. Sweet was one of those rare phoneticians who never ceased to cherish a living and productive interest in the historical development of the particular language which happened at a given time to be engaging his attention, while keenly pursuing every possibility and speculation in the theoretical study of language.

In the year 1901 the late H. C. Wyld published—along with a brief account of Sweet and his work—a fairly complete bibliography of his publications up to that date¹: and it happened that this year was something like a final turning-point in Sweet's career. For it marked his final unsuccessful attempt to gain that academic recognition which was at once necessary for his full development and so clearly merited by his genius and his performance. With the consciousness in the minds of the Oxford authorities that Sweet had obtained a "fourth" in Greats, the insularity of the University then in matters of philology and the fact that Joseph Wright had effectively been carrying out the duties of the chair of comparative philology for some little time, Sweet's chances could not have been assured even if he had had the worldly wisdom to make the most of himself in a formal application. But since 1895 he had made Oxford his home, and had already managed to quarrel with several of the leading persons of the University through that rigorous candour which was alike a virtue and a defect of his character. Despite the fact that competent scholars on the Continent took it for granted that Sweet would be elected as a matter of course, Wright was elected—though only after a slight delay during which Sweet's friends mistakenly assured him that his election was quite certain. I yield to none in my respect and affection for the memory of Joseph Wright, to whom I owe my best philological beginnings. He had something like genius for

¹ *Modern Language Quarterly*, July, 1901.

teaching orally—as Sweet, too, had (though he had only private opportunities of showing this till near the end of his life). But in his published work Wright can have no pretensions to originality or creativeness, nor had he the living knowledge of languages. Sweet *knew* his languages (cf. his astonishing feat in putting *Beowulf* into Old English prose): nor could he—as Wright sometimes did—treat philologically of languages he did not really know. His gift to his country was the great *Dialect Dictionary* and the making available in practical English versions of the results of German scholarship in English, Germanic, and Classical Philology. All, save only those who knew the Oxford of that time and the circumstances and dispositions of the two men, will share the astonishment of Continental scholars at Oxford's failure to offer to Sweet what was then the sole professorship of comparative philology in this country. Some tenuous amends were, however, then tardily made by the only academic recognition that was to come to Sweet in his own country—his appointment as Reader in Phonetics at Oxford at a stipend of £200 per annum. This at last gave him the opportunity of teaching to some extent in the University and brought him into direct contact with the young School of English Language and Literature at Oxford. But irreparable damage to his outlook had probably by then been done: and his closing years at Oxford were marked by the growth in more serious shape of that difficultness—at times almost suggestive of nascent “persecution-mania”—which prevented any happy relationships with almost all of his academic colleagues and deprived him of that formative influence on English philological studies to which his learning and his superb abilities should have entitled him. It was at this time that he is said—after a difference at a meeting—to have received the great lexicographer Sir James Murray's somewhat formally uttered “Good morning, Dr. Sweet” at a casual street encounter with only the words “Damn you, Murray”.

The published fruits of Sweet's Readership in Phonetics

were a brilliantly revised edition of his earlier *Primer of Phonetics* in 1906, and in 1908 his pioneer *The Sounds of English, an Introduction to Phonetics*, both from the Clarendon Press. He died of pernicious anaemia on 30th April, 1912. In the following year his *Collected Papers* were edited by H. C. Wyld,¹ thus making accessible to a larger public some of the best of Sweet's articles and studies which had otherwise remained obscurely scattered in technical periodicals and the *Transactions of the Philological Society*. I do not think a complete bibliography of his work exists, though—besides the works of H. C. Wyld already mentioned—Savory notices most of his more outstanding publications in his article on Sweet in *Neuere Sprachen* for 1912.

Sweet was not an egotist—as so many great men have been—in the usual acceptance of the term. It is true that he protested with an often indiscreet vigour against failure to recognize his merits and academic apathy towards his plans and promise. But this was never out of self-consciousness or self-pride. It was rather the effect of that astonishing simplicity and candour to which I have already several times referred. Knowing himself to have the abilities and the vision and the energy to create a great renaissance of linguistic study in England and that he could give this leadership as no one else could, he could see nothing but stupid incompetence or personal malice in those who failed to recognize the obvious. Lacking worldly shrewdness and valuing honesty to a fault as he did, his academic defeats were often almost perhaps self-inflicted. His last years at Oxford, clouded by recurrent feuds and provocative misunderstandings, were spent—apart from the teaching in the University in which he took the greatest interest—in characteristic private studies. He learnt Chinese, worked on improving his own system of short-hand (which is said to have advantages over any of the others), experimented with his own method of musical notation, and inspired in the few younger disciples to whom

¹ *The Collected Papers of Henry Sweet edited by Henry Cecil Wyld, Oxford, 1913.*

he would allow a certain intimacy something of his own devotion to philology of every kind.

We have no full-length account of Sweet's personality, though many survive who knew him. That shy suspiciousness which he always had—and with marked increases in his later years—prevented close friendships lasting for long periods without interruptions or sudden breaches. But, allowing for the growth and changes which later years must have brought and for certain limitations in sympathies in the playwright himself, I regard Shaw's *Pygmalion* as presenting in Professor Higgins a dramatic portrait of Sweet which is true in substance as well as showing many of his external qualities. But Sweet, who could write so well on Shelley's poetry as well as pursue linguistic fact and theory with implacable logic, was no mere rationalist. The man who could show Alois Brandl how to enjoy Wordsworth's poetry had a keen religious sensitiveness which shared some qualities with the mystics: and it seems probable that (though he would not have accepted any religious "label") he was latterly something like a follower of Swedenborg.

The foregoing account of Sweet's life and work will, I hope, bear out and explain the attempt at a summary estimate of his achievement with which I shall conclude. All his life as a philologist was characterized by the clear-sighted vision of an ideal, energy, accuracy, clarity of expression, and inflexible honesty and independence. His defects as a scholar were incompleteness or interruptedness in his more ambitious works, some national bias caused by his belief that one finds one's best development through the medium of the native traditions and culture, and occasional lack of charity in judgment brought about by a temperamental provocative suspiciousness. He attained greatness in the often overlapping four spheres of phonology, Anglology (if the foreign neologism may be permitted), grammar, and comparative philology.

Sweet founded the modern science of phonetics, made it the basis of all linguistic studies, while at the same time becoming the best practising phonetician of his age. He

provided the pioneer hand-books on phonetics, the first really accurate and scientific recording of the sounds of living languages in his presentation of Welsh, Swedish, etc., in the Philological Society's *Transactions*, and the best treatments of English pronunciation and orthography till then obtainable. He was either the discoverer of the concept of the phoneme (though he did not use the term) or an independent discoverer of the idea contemporary with the Polish Jan Baudouin de Courtenay and the Kazan School of philologists. He founded the English school of phoneticians which remains lively and productive at this day. But he combined his passion for phonology with those other aspects of linguistic science which phoneticians often neglect. With truth Otto Jespersen wrote of him in his Presidential Address to the Modern Humanities Research Association in 1920¹: "Each of them also (Johan Storm, Sweet, and Sievers)—Sweet perhaps even more than the two others—showed that it was possible to combine minute observation of present-day language with a sound knowledge of previous speech-periods, and thus to gain a real insight into the essence of linguistic history."

As an Anglicist, Sweet laid the foundations of Old English dialectology in his *Oldest English Texts*. His minute exactness in reading the MSS. has seldom been equalled in work of this kind: and it may almost be said that upon this work and his great edition of King Alfred's version of the *Cura Pastoralis* the whole of our scientific knowledge of Old English has come to be built up. His *History of English Sounds* laid the sure foundations likewise of its subject: and his *Readers* and other English manuals first made it possible for university courses in English to rest on sound historical bases. He gave the first exact account of the sounds of the current spoken language and made English syntax, as it were, come historically alive in the second part of his *New English*

¹ *Linguistica, essays by O. Jespersen*, London and Copenhagen, 1933, p. 87. For his further comments on Sweet as a phonetician, see *ibid.*, *Zur Geschichte der älteren Phonetik*, pp. 40 ff.

Grammar. His papers in the *Transactions of the Philological Society* on English subjects were almost without exception pioneers in their parts of the field.

As a grammarian Sweet's work lies at the base of much that is good in more modern studies of the foundations, the philosophy and the historical perspective of the subject. His amazing paper written as early as 1876 entitled *Words, Logic and Grammar* and published in our *Transactions* pointed the way to a new fundamental approach to grammar which was carried out and illustrated with the most practical effectiveness in his *New English Grammar*. And here again our *Transactions* contain several casual papers of real significance on grammatical themes.

Under comparative philology, in estimating Sweet, I shall include his contributions to what is now usually referred to as General Linguistics, for the sake of convenience. His Presidential Addresses and Reports on philological subjects made to this Society would, I believe, in themselves entitle him to be considered a great philologist. In a style of concise clarity and vigour he would run with incisive critical comments over the whole field of Indo-European philology in the light of recent work by scholars throughout the Continent; and there was often something creative in these comments. As early as the *Cura Pastoralis* of 1871 he had come near to recognizing the phenomena later described and explained in part by Karl Verner: and it has long seemed to me that his passing statement in his Presidential Address for 1878 that the Germanic accent is "substantially identical with that of Vedic Sanskrit" suggests for the first time a specially valuable direction in the search for the phonetic explanation of "Verner's Law". If, I believe, we could know the exact relationship between the musical or "pitch" accent and the stress system in the various Indo-European periods and thence in Primitive Germanic, the so-called *grammatische Wechsel* between the voiceless and voiced consonants of Germanic languages would be a long way towards becoming intelligible as a phonetic phenomenon. The apparent co-existence of stress

with a musical accent in the *Rigveda* as indicated by traditional signs, which is quite independent of it, may hold the key to the Primitive Germanic accent: for I find (particularly in dealing with the phenomena of Gothic which are supposed to be an unexplained exception to "Verner's Law") that the musical accent may well have had something very directly to do with the voicing or absence of voicing of the consonants concerned. Sweet's *History of Language* is, in fact, the bare skeleton on which a great book on linguistic origins and Indo-European philology might have been developed, had he then been able to find a publisher for work on this subject in any other way than as an elementary hand-book. In this little book he made available "the best that was known and thought in the world" on its subject. But he added his own untrammelled ideas and showed eagerness to widen the Indo-European field just as fast as new knowledge became accessible. Sweet, indeed, had too many "specialisms" himself ever to put theoretical bars to the growth of philology. I cannot here refrain from quoting a rather long, but especially characteristic, passage on this matter from *The History of Language*:—

"I foresee most opposition to the chapter on Aryan affinities. In philology, as in all branches of knowledge, it is the specialist who most strenuously opposes any attempt to widen the field of his methods. Hence the advocate of affinity between the Aryan and the Finnish languages need not be alarmed when he hears that the majority of Aryan philologists reject the hypothesis. In many cases this rejection merely means that our specialist has his hands full already, and shrinks from learning a new set of languages—a state of mind which no one can quarrel with. Even when this passively agnostic attitude develops into aggressive antagonism, it is generally little more than the expression of mere prejudice . . . or want of imagination and power of realizing an earlier morphological stage of Aryan; or, lastly, that conservatism and caution which would rather miss a brilliant discovery than run the risk of having mistakes exposed." ¹

¹ *Preface*, pp. vi–vii.

I know of no book which packs so much clearly set out and stimulating fact and thought into so small a space. Language-study and its value, grammatical theory, linguistic origins, phonetics, all find their place in this little masterpiece which changes in terminology and the advance of knowledge have not even yet seriously impaired as a guide. The concluding chapter (referred to in the passage already quoted) treats of Finno-Ugrian, Sumerian and the Altaic languages in possible affinity to Indo-European (*Arian* as Sweet would call it) with the sureness and modesty of a master: for whatever he treated of must always, in Sweet's view, be handled only with knowledge obtained at first hand.

I will end now, as I began, by reminding you that Henry Sweet was in the earlier days of his connection with the Philological Society a leader of limitless ambition for the growth of this body and an irrepressible inspirer of projects of hard work which would place it in its proper position of dominance. Several members have suggested to me the project—proposed some years ago at Oxford by J. A. Smith—of a Dialect Survey of England to be sponsored by the Society. This is a project which might well give once more to our work that all-embracing quality of lively strength which the Philological Society had in the early days of its great Dictionary, when Sweet, our greatest English philologist, was its leading inspiration.

SUPPLEMENTARY NOTE TO ASICA¹

By H. W. BAILEY

1. **ūo-**, I. *ū-*, *u-* (*ū-*) < Old Iran. **ava*, preverb: *ūodayun*, I. *ūdāin*, ptc. *ūdæst* 'moisten' (I. *ūdæsin*, ptc. *ūdæst* 'become moist'; *fældayun*, I. *fældāin*, ptc. *fældadt* 'moisten'; *tayun*, I. *tāin* 'melt, thaw') < **ava-tāy-*; *ūoramun*, I. *ūromin* 'to rest' < **ava-ram-*; *ūodænsun*, I. *ūdæssin* 'to forgive, endure'. For *ūolæfun*, see no. 2.

Khotan. *va-* in *vasus-* 'to purify', *vasuta-* 'pure' < **ava-suxta-* (with *ava-*, not *upa-*, as the Sogdian indicates). Hence Khotanese like Ās has abandoned the first vowel. Elsewhere we find loss of the second vowel. Sogdian Bud. (in P) '*wr'mty* 'calmé', '*wr'm* 'calme' sb., '*wrms-* 'se calmer', Padma-cintāmaṇi-dhāraṇī-sūtra 26 '*wr'ms'nt*; '*wswytk* 'pure' Dhyāna 271 et passim. For other cases of Sogdian '*w-* see Gauthiot-Benveniste, Gram. sogd. II 59, 61. MidPersian and MidParthian also have '*w-*, see W. B. Henning, *Das Verbum des mittelpersischen Turfanfragmente* 225 and A. Ghilain, *Essai sur la langue parthe* 104. Similarly ZorPahl. '*wpt-*, NPers. *uft-* 'fall'.

For **va-* becoming *ūo-*, *ū-* in Ās cf. also *ūoci*, I. *ūci*, *ūci* 'that' < **ava-* and *ūomun*, I. *ūōmin*, *ūāmin* 'vomit' < *vam-*.

2. **ūolæfun**, I. *ūlæfin* (V. Miller, GIP, Ossetisch 57 *ūlæfin*) 'to breathe, sigh'. The common word for 'breathe' and 'blow' in Iranian is *dam-* (the base *an-* not being frequently attested, see e.g. Zoroastrian Problems 106). So Avestan *dam-*, Sogd. *dm-*, MidPers., MidParth. *dm-* 'breathe', MidParth. '*ndm-* 'sigh', Khotanese *dam-* 'blow', *wysdem-* 'to cool', *naṣḍam-* 'blow away', *padama-* 'wind'; ZorPahl. *dam-*, *daft*, see BSOS 6. 597 f.; Ās *dumun*, I. *dīmin* 'blow, smoke', *dunsun*, I. *dīmsin* 'blow itself up'. Further we know from various examples that *-m* and *-f* vary at the end

¹ *Transactions*, 1945.

of verbal bases (see the partial discussion in *Iranian Verbs in -M and -P*, in the volume in honour of C. E. Pavry, and BSOS 6. 597 f.). In Ās occurs *æyafun*, I. *æyáfin* 'reach', MidPers. 'y'b- (W. B. Henning, *Das Verbum* 176), ZorPahl. *ayāftan*, NPers. *yāftan* representing the base *yam-*. Similarly MidParthian has *wf-* 'vomit' < *vam-*.

May we then in this word *ūolæfun* assume a replacement of intervocalic *-d-* by *-l-*? That is, to take *ūolæf-* as the representative of Old Iran. **ava-dam-*. Since *-d-* is usually retained in Ās (possibly through a stage *-δ-*, as we find *-γ-* from *-g-*) a dialectal word could be assumed (as the Sogdian dialects and NSogdian, *Yaγnābī*, show divergences in regard to *d*).

Possibly further support for this dialectal *-l-* may be seen in the word Ās *ær*, if it is traced to Old Iran. *adi*. The word is frequent as preverb and may occur, like other preverbs, separated from the verb, as *ær æi cārðæncæ* 'they settled on it' (V. Miller, *Oss. Et.* I 92, quoted GIP, *Ossetisch* 81). Before *l-* we have *-l* as in DI *ællæūun* 'set beside oneself' and other cases listed in the Dictionary. The meaning of **adi* would suit well for *ær* 'on, towards'. Possibly also the same **adi* may be found in *ærūæd*, *iræd*, I. *iræd* 'bride-price', if this is from **adi-vadū-* 'concerned with the bride'. If this is accepted, it will be seen that *ær* < **adi* was thus kept distinct from *æd* < **hada* 'with'. Elsewhere **adi* is infrequently attested in Iranian, although in Old Indian *adhi* is common. C. Bartholomae admitted **adi* in Avestan *aidyū-*. MidPers. has 'y- (see W. B. Henning, *Das Verbum* 225) and MidParth. 'yā- (see A. Ghilain, *Essai* 103), ZorPahl. 'd- ('y-) in *advan* 'trunk of a tree' (see JRAS 1934. 505 ff.). J. Markwart in the *Festgabe Szinnyei* (1927) 64 ff. discussed NPers. *yār* and other words in which he recognized **adi-*. Possibly Khotanese *yolā-* 'falsity' may represent **adi-dab-* with the suffix *-lā-* (I see nothing acceptable in A. van Windekens, *Lexique étymologique des dialectes tokhariens* under *yolo*). Pašto has *ālwatəl* 'to fly' < **adi-vaz-* (G. Morgenstierne, NTS 12. 106). I might add that I do not see any advantage in going outside Iranian to think of Lettish

ar 'with', see Walde-Hoffmann, *Latein. etymol. Wörterbuch* sv. *ad*. If one were to seek a similar dialectal form with *l* of **dahaka-* 'man' (as Khotan. *daha-* 'man' contrasted with 'woman', *waχī dāi* 'man, hero' (G. Morgenstierne, IIFL 2. 521) in Ās it would have the form *læg*, which exists in precisely that meaning. N. Trubetskoj traced similar words in Caucasian languages (*Mélanges van Ginneken*, 171–8). They could be of Ās origin. It is not clear if the *Λήγες* of Plutarch and the *Λήγαι* of Ptolemaios (see Pauly-Wissowa, *Real-Encyclopädie*, s.vv.) represent the same word. The meaning of the proper name is naturally conjectural, and coincidence cannot be excluded.

3. *ægær* DI adv., adj. 'too, excessive, -ly'; *ægæridzag*, I. *ægærdzág* 'overfull'; D *ægærid*, *ægirid* 'wholly', with *-gær* < Old Iran. **kara-*. Ās *kær-* is used in *kæræi kæronmæ* DI 'from beginning to end'; with suffix *-on* also *kæron* 'end'.

Khotan. *kara-* 'limit, outside' adj. *karvīnaa-* 'external', *karaā-* 'limiting circle', see BSOAS 10. 580.

With suffix, Avestan *karana-* 'end', Sogd. Bud. *kyr'n* (Dhyāna 45, 285), Man. *kyr'n*, *qyr'n*; MidPers. *qn'rg*; ZorPahl. *kn'lk* and Pahl-Psalter *kn'lky*; NPerš. *karān*, *kanār*. For Khotanese *karāna-*, see BSOAS 10. 922.

4. *fiyyagæ*, I. *fiyyág* 'shovel, spade', *fiyag* 'winnowing shovel' (Mat. 3. 12).

Khotan. *phvai* (*v*, not *y*, is certainly written, but may have replaced an earlier *y*) < **fiyāka-* in the Rāma text (BSOAS 10. 591), conjecturally rendered by 'stick', but possibly 'spade' was meant. On Sogd. Bud. *βyk* 'shoulder', see W. B. Henning, BSOAS 11. 729. Similarly with a *-k* suffix *Waχī fīak*, Sanglēcī *fīūk* 'shoulder-blade', Munjī-Yidya *fīa*, *fīyo* 'spade'. Forms without the *-k* suffix are *Waχī pēi* 'spade', Sanglēcī *fī* 'spade', NPerš. *fīh* 'spade, oar' and other dialect forms, see G. Morgenstierne, IIFL ii 392, 522, and 208; *Acta Orient.* 8. 307.

5. The instrumental in predicative use, Ās *-æi* (see R. von Stackelberg, *Beiträge zur Syntax des Ossetischen* 27–29 'Ablativ des Zustandes' and K. Bouda, *Caucasica* 11. 41,

note 2) is quoted also in Sogdian : $\gamma\omega\beta\omega y'$, see W. B. Henning, *Sogdian Tales* 475, note 5.

6. With *balc* 'journey', p. 5, should be mentioned also *æmbal* DI. 'travelling companion' < **ham-bāra*- 'riding together'; *baræg* 'rider' < **bāraka*-, and *bairag* 'foal' < **bāryāka*- (?).

7. Recall with *cærgæs*, p. 8, also Vogul *sārkaś* 'eagle', B. Munkácsi, *Keleti Szemle* 19 (1919) 18.

8. Beside the normal Greek form $\pi\alpha\rho\epsilon\mu\beta\omicron\lambda\eta$ it is useful to notice the Coptic spelling $\pi\alpha\rho\alpha\mu\pi\omicron\lambda\eta$ in the Manichean Kephalaia I 142, 170, and other passages.

9. Pašto *-āwai*, oblique case *-āwī*, occurring in *dranāwai* 'heaviness, honour' from the adj. *drūnd* 'heavy' should be joined to the Sogdian *-'w'k*, *-'wyy* (see also on this W. B. Henning, BBB 124) and Chorasmian *-'wk*, p. 10. G. Morgenstierne kindly informs me that he has not found this suffix in other Pašto words. Ormurī has $\chi\omega\tilde{a}\tilde{z}\tilde{a}\tilde{w}\tilde{i}$ 'sweetness'.

10. For *zz* < *iz*, p. 13, note also the (secondary) change in I. *bazzāin*, *bazzad*, D. *baizayun* 'to remain' < **vi-zāy*-. In compounds the *i*- < **vi*- survives in Iron as in *áiræzin* 'to grow' beside *ræzin*, D. *iræzun*; $\chi\acute{i}n\acute{a}e\acute{i}d\acute{z}ag$ 'evil' (Lk 11. 13); $\chi\acute{a}er\acute{z}i'g\acute{u}rd$, and $\chi\acute{a}er\acute{z}g\acute{u}rd$, D. $\chi\acute{u}aer\acute{z}igurd$ 'brave'; *baidzag kænīn* 'to fill', beside I. *dzag* 'full'.

11. For the *-tæ* plural with numeral, p. 25, note the phrase *sædæ aztæ* 'for a hundred years' (Kosta, *Iron Fændir* 75, l. 17) like the *biræ aztæ* 'many years' in *Iron Adæmon Sfældistad* 5.41, 3.

12. In regard to *a*, p. 20, after further consideration I would venture to derive it from **yā* fem., which would then have been retained beside *i* < **ya(h)*, after the difference of genders had been given up in *Ās*. The absence of *y*- could be variously explained. I would add that the D. *-i*, I. *-i* in the well-known *mæ fidi zæronð*, I. *mæ fidi zæronð* 'my old father', and similar phrases, which has been identified with the gen. sing. ending *-i*, I. *-i*, see K. Bouda, *Caucasica* 11. 65, may have preserved the Old Iran. *ya*- in relative use. Kosta, *Iron Fændir*, p. 27, l. 2, shows that the accent has not been

shifted to the first syllable of the following word, as happens with the article D. *i*, and in Iron where **i* has been lost. Note, too, that this *-i* in Digor replaces the final *-æ*, as does the gen. sing. *-i* (*fidæ*, *fidi*) and that *-i* has survived in Iron, as it does in compounds in the initial of the second component, see no. 10 above.

13. With **varmaka-*, p. 28, we should probably also compare D. *üormeg* 'cloak, šuba', P 2.76.17 and 53.30. For Finnish (loanwords) *vermen* 'epidermis' and *verme* 'garment', see J. Kalima in *Germanen und Indogermanen*, Festschrift für H. Hirt (1936) II p. 204.

14. A further case of Sogd. Man. *-wnyy*, p. 29, is *βχtwnyy* 'schism' (W. B. Henning, BBB 123). Incidentally in *Asica*, p. 29, ante-penult. line *-wn'yy* is misprinted for *-wnyy*. Nearer in use to the Ās infinitive in *-un* is Sogd. Chr. *-wn*. John 5. 30 *ny qī' wn'nq' zw 'yē ēn mn' grywy ryž pr qrw* 'I cannot do anything of myself'. Similarly John 9. 16. Here *pr qrw* shows the *-wn* dependent on a preposition. For Sogd. Man. *qrwn'mndyh* 'action', see W. B. Henning, *Sogdica* 37.

15. Pamir dialect forms of Old Iran. **haitu-* are found in Šuynī *ie'd*, Bartangī *i't*, Rōšānī *i'd* 'bridge' (H. Sköld, *Materialen zu den iranischen Pamirsprachen*, 166-7) and Munjī-Yidya *yeya* (G. Morgenstierne, IIFL 2.274).

16. A further case of Georgian *-v-i*, p. 37, in an Iranian loanword is found in *nadz-v-i* 'fir, cedar', NPers. *nāz*, *nāž*, *nāj* 'pine, cypress'.

17. The following corrections are needed to *Asica*. P. 4 for *arfayæg* read *arfæyag* (line 6), and for *ptryy* read *ptfryy* (line 9). P. 4, ante-penult. line, insert *cf. for l* before *æly*. P. 6, l. 16, read *bājinañā*. P. 11, middle, insert *páθ*, *Sarikoli* before *puδ*. P. 16, middle, translate *kæstær* by 'younger'. P. 18, read *her* for *him* in the translation of Yašt 5.25. P. 33, read Pašto *wāšə* with *š*.

18. To p. 15 add Parthian *gzn* 'treasure' (BSOS 9, 83).

A CORRECTION

I REGRET that on pp. 132 f. of my article on 'Basic English' published in *Transactions* (1945) the reference to the source of my quotations, viz., C. K. Ogden, *The ABC of Basic English* (London, 1932), pp. 143, 145, was inadvertently omitted. Of the specimens quoted (*a*) was taken verbatim and (*b*) was condensed from passages in that book. It is fair to say that the authors of Basic were well aware of the idiomatic nature of the phrases I included and that the high percentage of idioms was due to my own condensation. I should have made it clear that while Basic admits the idioms quoted, such a high concentration should not be regarded as 'normal' in Basic any more than in Standard English. I should also like to assure Mr. Ogden that my reference to his use of *do the trick*, etc., on p. 132 does not imply a reflection on his sense of English style, but merely indicates the difficulty of avoiding such incongruities, when one works within a limited vocabulary.

W. E. COLLINSON

THE PHILOLOGICAL SOCIETY

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ANNUAL REPORT FOR 1945

The year 1945 saw the end of the war and a great revival of the activities of the Society; many of its members were released from various forms of war service, and communication was renewed with foreign members. During the year the Society held six ordinary meetings, when papers were read as follows: 12th January, by Mr. L. J. D. Richardson on "Gamma, Double Gamma and Agma"; 9th February, by Professor W. E. Collinson on "Basic English"; 9th March, by Dr. J. A. Sheard on "The Phonological Development of a West Riding dialect"; 12th May, the Anniversary Meeting, by Professor Myles Dillon on "Research and Experiment in Linguistics in the United States of America"; 26th October, by Professor J. R. Firth on "The English School of Phonetics"; 23rd November, by Mr. A. Master on "The Negative Verb in Dravidian". On all these occasions the Society enjoyed the hospitality of King's College. It is proposed to renew in 1946 the practice of holding additional meetings out of London.

Transactions 1944 was distributed in May, but printing delays still make it impossible to overtake arrears further. Dr. Palmer's book, though dated 1945, has only just appeared; other publications are in hand.

During the year 19 ordinary members and 5 libraries joined the Society, and at the end of the year the total membership stood at just over 200.

The Society has learned with regret of the death during the war of Professor O. Hujer, of Prague, an honorary member; it is feared that Dr. T. M. Chotzen, of the Hague, has also perished. Other losses by death are those of Professor Fiedler and Professor John Fraser.

H. W. BAILEY } *Joint Honorary*
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 1920. CHATTERJI, S. K., M.A., D.Lit., 16 Hindusthani Park, P.O. Baliganj, Calcutta, India.
1945. CHRISTOPHERSEN, Professor P. H., M.A., Ph.D., 1 Engtoftevej, Copenhagen V, Denmark.
 1923. COLLINSON, Professor W. E., M.A., Ph.D., 58 Alderley Road, Hoylake, Wirral, Cheshire.
1902. CRAIGIE, Professor Sir William A., M.A., LL.D., D.Litt., Ridgehurst, Christmas Common, Watlington, Oxon.
 1946. CROSSLAND, R. A., B.A., Berkeley College, Yale University, New Haven, Conn., U.S.A.
 1946. CURIEL, R., Délégation Archéologique Française, Kabul, Afghanistan,
1935. DAHL, Professor Torsten, 3 Kathrinebergvej, Aarhus, Denmark.
 1945. *DANIELS, F. J., B.Sc. Econ., 4 Cheviot Ct., Luxborough St., W. 1.
 1934. d'ARDENNE, Professor S., B.Litt., Solwaster, Sart-les-Spa, Belgium.
 1934. DAUNT, Miss M., M.A., 73a Elsham Road, Kensington, W. 14.
 1939. *DAVIES, H. Lloyd, Dinnle, Gardden, Ruabon, near Wrexham.
 1924. DAWKINS, Professor R. M., M.A., Exeter College, Oxford.
 1913. *DAY, Miss M., M.A., D.Lit., 15 Elgin Court, Maida Hill, W. 9.
 1934. DICKINS, Professor Bruce, M.A., Corpus Christi College, Cambridge.
 1946. DIETH, Professor E., Dr.Phil., Rütistrasse 6, Zollikon, Zürich, Switzerland.
1932. *DILLON, Professor M., M.A., Ph.D., The University, Edinburgh.
 1938. DUNN, C. W., C.I.E., M.A., Manting House, Meldreth, Cambs.
1937. EARLS-JENKINS, R., M.A., D.Ed., F.I.L., 89 Lexham Gardens, Kensington, W. 8.
 1938. EDWARDS, Professor Evangeline D., D.Litt., School of Oriental and African Studies (Far East Dept.), 9-22 Sussex Square, W. 1.
 1933. EDWARDS, Professor W. M., B.A., The University, Leeds 2.
 1944. ELLIOTT, F. S., 89 Alton Road, Birmingham 29.
 ELLISON, Miss F. R., B.A., F.L.A., Royal Holloway College, Englefield Green, Surrey.
1938. ELSTON, C. S., M.A., Ph.D., Woodlands, High Molewood, Hertford.
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 1931. EVANS, E. D. PRIESTLEY, c/o Lloyds Bank, Scaton, Devon.
 1946. EVANS, Miss E. M., B.A., School of Oriental and African Studies, University of London, W.C. 1.
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 1930. EWERT, Professor A., M.A., Trinity College, Oxford.
1933. FIRTH, Professor J. R., O.B.E., M.A., 11 Woburn Square, W.C. 1.

1944. FOSTER, I. Ll., M.A., University of Liverpool, Liverpool 3.
1912. GABRIELSON, Professor Dr. A., Djursholm, Stockholm, Sweden.
1910. GARDNER, A. H., M.A., D.Lit., F.B.A., Upton House, Wonston, Sutton Scotney, Hants.
1934. GARMONSWAY, G. N., M.A., 83 The Green, Ewell, Surrey.
1946. GERSHEVITCH, Ilya, Ph.D., 79 Grantchester Meadows, Cambridge.
1912. GIRVAN, R., Ekadasha, Clevedon Gardens, Glasgow, W. 2.
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1906. *GRATTAN, Professor Emeritus J. H. G., B.A., 7 Rutland Avenue, Liverpool 17.
- GRAY, Professor L. H., 450 Riverside Drive, New York City, U.S.A.
1946. GREEN, A. W. T., M.A., 3 Vambery Road, Woolwich, S.E. 18.
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1941. GREEN, Miss M. M., M.A., 20 Nottingham Place, W. 1.
- GRIFFITHS, Miss M. E., M.A., 175 Woodstock Road, Oxford.
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1939. HATTO, A. T., M.A., 11 Gills Hill, Radlett, Herts.
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1940. HENNING, Walter, Ph.D., 38 Radegund Road, Cambridge.
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1944. HILDITCH, K. R., 32 Butts Road, Swan Bank, Penn, Wolverhampton, Staffs.
1941. HORNER, Miss I. B., M.A., 30 Dawson Place, W. 2.
1945. HULME, Miss H. M., M.A., 14 Parliament Hill, N.W. 3.
1936. JOHNSTON, R. C., M.A., Doc. Univ. Strasbourg, The Red House, 60 Ifley Road, Oxford.
1913. *JONES, Professor D., M.A., 3 Marsham Way, Gerrard's Cross, Bucks.
1936. JONES, D. M., M.A., University College, Bangor, N. Wales.
1923. JOPSON, Professor N. B., M.A., St. John's College, Cambridge.
1941. *KENT, Professor R. G., Ph.D., 324 Aubrey Road, Wynnewood, Pa., U.S.A.
1937. LATHAM, R. E., M.A., 284 Croydon Road, Caterham, Surrey.
- LEARY, K. P., 99 Culverley Road, S.E. 26.
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1940. LEWIS, Bernard, B.A., Ph.D., School of Oriental and African Studies, University of London, W.C. 1.
1946. LEWIS, Miss M. B. Rice, O.B.E., M.A., 40 Guessems Court, Welwyn Garden City, Herts.

1931. LLEWELLYN, Professor E. C., M.A., B.Litt., Brynawel, Talbot Road, Llantrisant, Glam.
1946. LOCKWOOD, W. B., M.A., 9 Serpentine Road, Birmingham 29.
1931. LORIMER, Lt.-Col. D. L. R., C.I.E., 32 Parkway, Welwyn Garden City, Herts.
1940. McCLEAN, R. J., Dr. Phil., M.A., Vinga, Parkway, Gidea Park, Essex.
1936. McINTOSH, A., M.A., A.M., University College, Swansea.
1945. MACK, Miss F. M., B.A., Ph.D., King's College, Strand, W.C. 2.
1936. MACKIE, Professor W. S., M.A., Drumoak, Greenfield Road, Kenilworth, Cape Town, S. Africa.
1933. MARCKWARDT, A. H., M.A., Ph.D., University of Michigan, Ann Arbor, Michigan, U.S.A.
1946. MARM, Capt. I., Cand. Phil. (Oslo), Missionshotellet, Kirkegaten 5, Oslo, Norway.
1946. MARTINET, Professor A., 11 rue Monsieur, Paris VII^e, France.
1943. MASSEY, W. Devereux, British Legation, Stockholm.
1939. *MASTER, A., C.I.E., M.A., The Gate House, 24 Sylvan Avenue, Mill Hill, N.W. 7.
1940. MAVROGORDATO, Professor J., M.A., Exeter College, Oxford.
1946. MOORHOUSE, A. C., M.A., University College, Swansea.
1946. MORGENSTIERNE, Prof. G., Lille Borgenvei, Vinderen, Oslo, Norway.
1900. MORLEY, Professor Edith J., 96 Kendrick Road, Reading.
1943. MUNDY, C. S., B.A., School of Oriental and African Studies, University of London, W.C. 1.
1914. MUNRO, J. J., O.B.E., M.C., M.A., Authors' Club, 2 Whitehall Court, S.W. 1.
1946. NANDRIS, Professor G., Ph.D., 27 Wetherby Mansions, Earl's Court Square, S.W. 5.
1932. NOBLE, Professor P. S., M.A., The University, Aberdeen.
1932. NORMAN, Professor F., M.A., 21 Park Hill Road, N.W. 3.
1926. NORTHUP, Professor C. S., 407 Elmwood Avenue, Ithaca, N.Y., U.S.A.
1934. O'LOUGHLIN, J. L. N., M.A., British Information Service, 30 Rockefeller Place, New York 20, N.Y., U.S.A.
1913. ONIONS, C. T., C.B.E., M.A., D.Litt, Litt.D., LL.D., F.B.A., 7 Staver-ton Road, Oxford.
1932. ORTON, Professor H., M.A., B.Litt., English House, The University, Leeds 2.
1936. PALMER, Professor L. R., M.A., Ph.D., Flat 3, 96 Lexham Gardens, W. 8.
1946. PICKERING, F. P., B.A., Ph.D., German Dept., The University, Sheffield 10.
1931. PIDCOCK, W. W., B.A., Tollington School, Muswell Hill, N. 10.
1930. POPE, Miss M. K., M.A., Doc. Univ. Paris, The Cottage, Garford, Berks.
1932. POTTER, Professor S., M.A., B.Litt., Ph.D., 23 Menlove Avenue, Liverpool 18.

1945. RABIN, C., Ph.D., D.Phil., 47 Weyland Road, Headington, Oxford.
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 Chicago, Ill., U.S.A.
 1931. RHYDS, Miss O., M.A., Gwynva, Barton Lane, Headington, Oxford.
 1917. RICHARDSON, G. H., 164 Rye Hill, Newcastle upon Tyne.
 1932. RICHARDSON, Professor L. J. D., M.A., University College, Cardiff.
 1902. *RICHARDSON, W. R., Cheselton, Withean Crescent, Brighton 6.
 1932. ROSS, A. S. C., M.A., The University, Leeds 2.
 1946. ROYFFE, A. G., B.A., 26 Cromwell Road, Beckenham, Kent.
 1946. RYLANDS, C. A., Brown's Field, Ightham, Kent.
1946. SCHINDLER, B., Ph.D., 15 Lyndhurst Gardens, N.W. 3.
 1945. SCOTT, N. C., B.A., B.Sc., School of Oriental and African Studies,
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 1936. SEATON, Miss M. E., M.A., 18 Parks Road, Oxford.
 1944. SHEARD, J. A., Ph.D., 58 Park House, Welwyn Garden City, Herts.
 1945. SHIPMAN, G. R., 2842 Yale Station, New Haven, Conn., U.S.A.
 1943. SIMON, W., Ph.D., 13 Lisbon Avenue, Twickenham, Middx.
 1934. SMITH, A. H., O.B.E., B.A., Ph.D., D.Litt., The Rectory, Alderton,
 Beckford, Glos.
 1934. SMITHERS, G. V., M.A., King's College, Strand, W.C. 2.
 1946. SNOW, O. W., B.A., 15 Spinney Hill Road, Leicester.
 1936. STEWART, Professor J. A., C.I.E., M.C., M.A., LL.D., 17 Avenue Road,
 Bishop's Stortford, Herts.
 1936. STONE, Miss L. W., M.A., Ditton Cottage, Thames Ditton, Surrey.
 1943. SWITHINBANK, B. W., C.B.E., M.A., 466 Loose Road, Maidstone.
1939. TAYLOR, W., M.A., 42 Park Road, Chelmsford, Essex.
 1922. *THOMAS, E. J., M.A., D.Litt., 49 Hinton Avenue, Cambridge.
 1923. THOMAS, Professor F. W., C.I.E., M.A., Ph.D., F.B.A., Limen,
 Bodicote, Nr. Banbury, Oxon.
 1929. TOLKIEN, Professor J. R. R., M.A., 20 Northmoor Road, Oxford.
 1935. TRITTON, Professor A. S., M.A., D.Litt., School of Oriental and African
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 1934. TRNKA, Professor B., Ph.D., Caroline University, Smetanovonám. 55,
 Praha III, Czechoslovakia.
 1944. TROUBRIDGE, Lt.-Col. Sir St. Vincent, Bt., M.B.E., 65 Highgate West
 Hill, Highgate, N. 6.
 1945. TUCKER, A. N., M.A., Ph.D., Somerhill, Cold Blow, Bexley, Kent.
 1934. TUCKER, Miss S. I., M.A., Braeside, 86 Woodland Road, Bristol 8.
 1924. *TURNER, Professor R. L., M.C., M.A., Litt.D., F.B.A., Haverbrack,
 Bishop's Stortford, Herts.
 1932. TURVILLE-PETRE, E. O. G., B.A., Bosworth Hall, Nr. Rugby.
 1936. TURVILLE-PETRE, Mrs., B.A., B.Litt., Somerville College, Oxford.
- ULDALL, H. J., The British Council, Buenos Aires, Argentina.
 1944. URWIN, K., M.A., Doc. Univ. Paris, University College, Cardiff.
1937. VAN PATTEN, N., Stanford University Libraries, Stanford University,
 California, U.S.A.
 1936. VOČADLO, Professor O., Ph.D., Caroline University, Smetanovonám.,
 Praha III, Czechoslovakia.

1920. WARD, Professor Ida C., B. Litt., D.Lit., School of Oriental and African Studies, University of London, W.C. 1.
1908. WEEKLEY, Professor E., M.A., 446 Upper Richmond Road, Putney, S.W. 15.
1943. WESANDER, E., 16 Lawn Road, Belsize Park, N.W. 3.
1931. WEST, Miss C. B., B.A., M.Litt., Ph.D., Royal Holloway College, Englefield Green, Surrey.
1945. WHITAKER, Mrs. K. P. K., M.A., 51 Chevening Road, N.W. 6.
1945. WHITE, Miss B. M. J., M.A., Westfield College, N.W. 3.
1936. WHITEHEAD, F., M.A., D.Phil., Dept. of French, The University, Manchester 13.
1937. WHITELOCK, Miss D., M.A., St. Hilda's College, Oxford.
1912. WILLIAMS, Professor R. A., M.A., Ph.D., D.Litt., 1 Cranmer Road, Cambridge.
1933. WILLOUGHBY, Professor L. A., M.A., Ph.D., D.Lit., Briarclough, Cross Oak Road, Berkhamsted, Herts.
1934. WILSON, R. M., M.A., 9 Endcliffe Vale Avenue, Sheffield 11.
1945. WOLIDGE, Professor B., M.A., Speen Lodge, Wendover, Bucks.
1914. WOOD, A. C., M.C., M.A., 48 St. Albans Avenue, Chiswick, W. 4.
1928. *WOODWARD, Miss A., M.A., Royal Holloway College, Englefield Green, Surrey.
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1945. WRIGHT, Mrs. H. M., B.A., 21 Green Hill, N.W. 3.

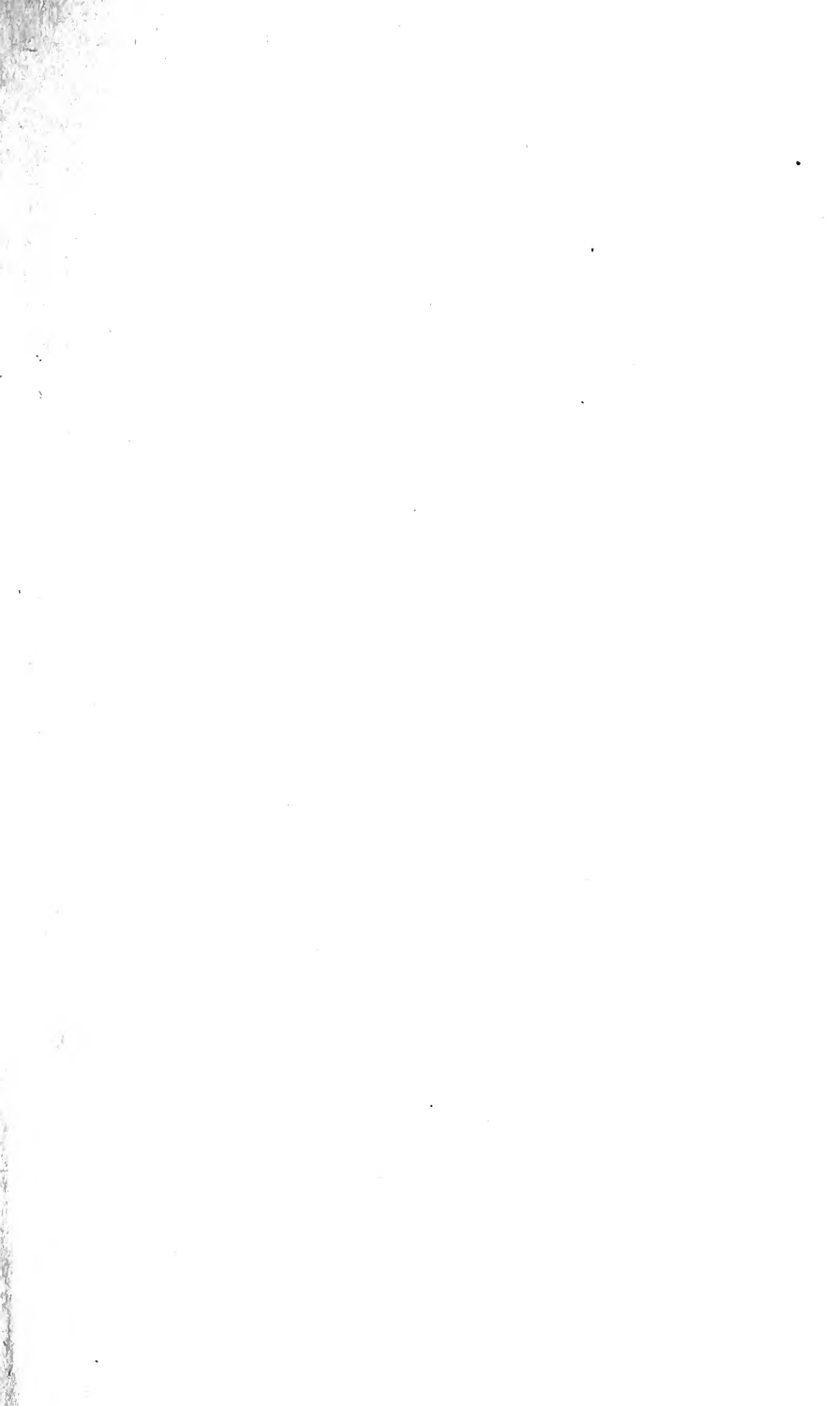
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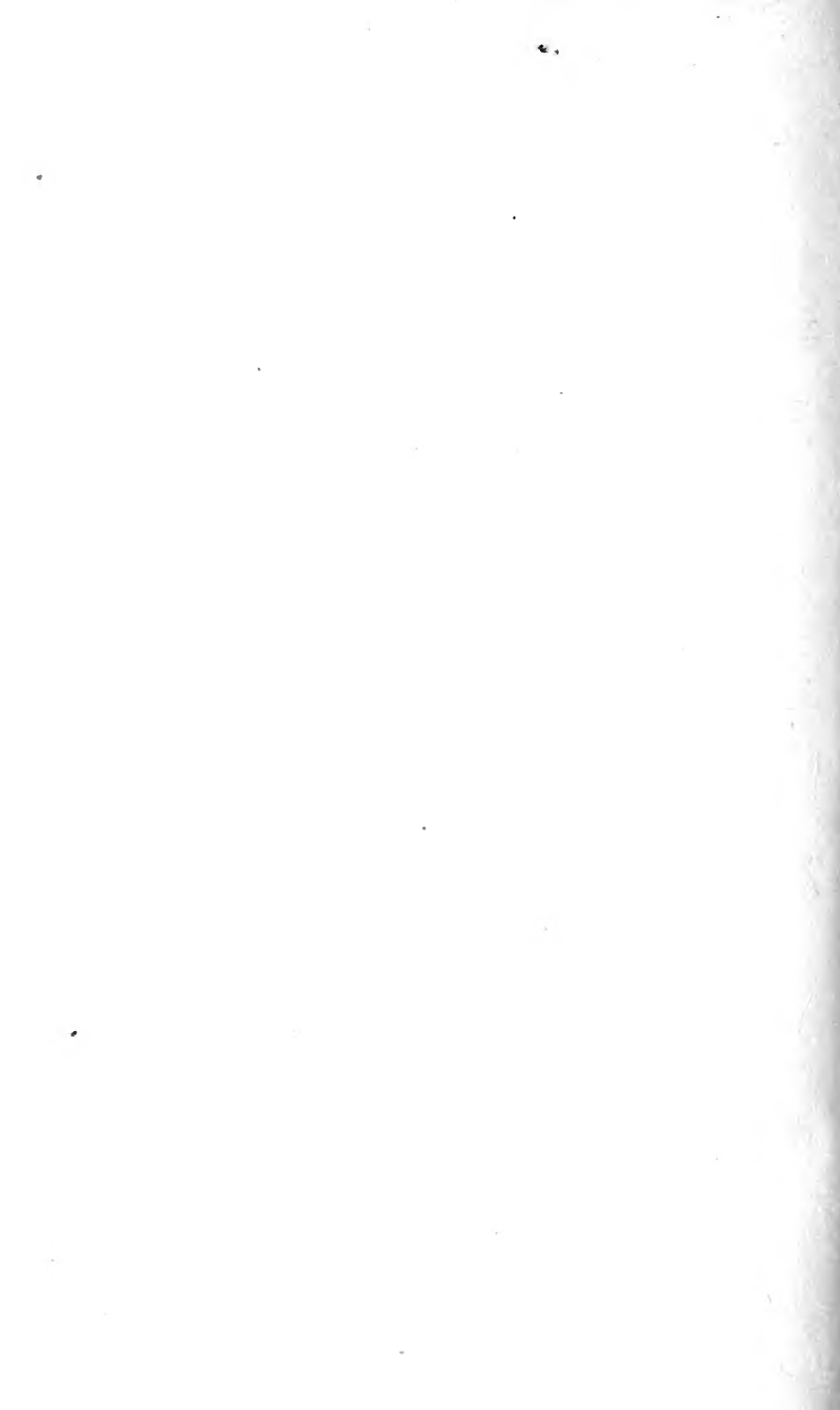
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1944. BRUSSELS, Bibliothèque Royale, 5 Place du Musée, Bruxelles, Belgium.
1943. BRUSSELS, University Library, c/o Bibliothèque Royale.
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1945. COPENHAGEN. The Royal Library (Danish Legation, London, on behalf of).
1918. DUBLIN. National Library of Ireland.
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1933. EDINBURGH. University Library.
1936. GENT, Belgium. Rijksuniversiteit te Gent, Seminarie voor Indo-europeesche Linguistiek (Professor G. van Langenhove), Lange Meire 16.

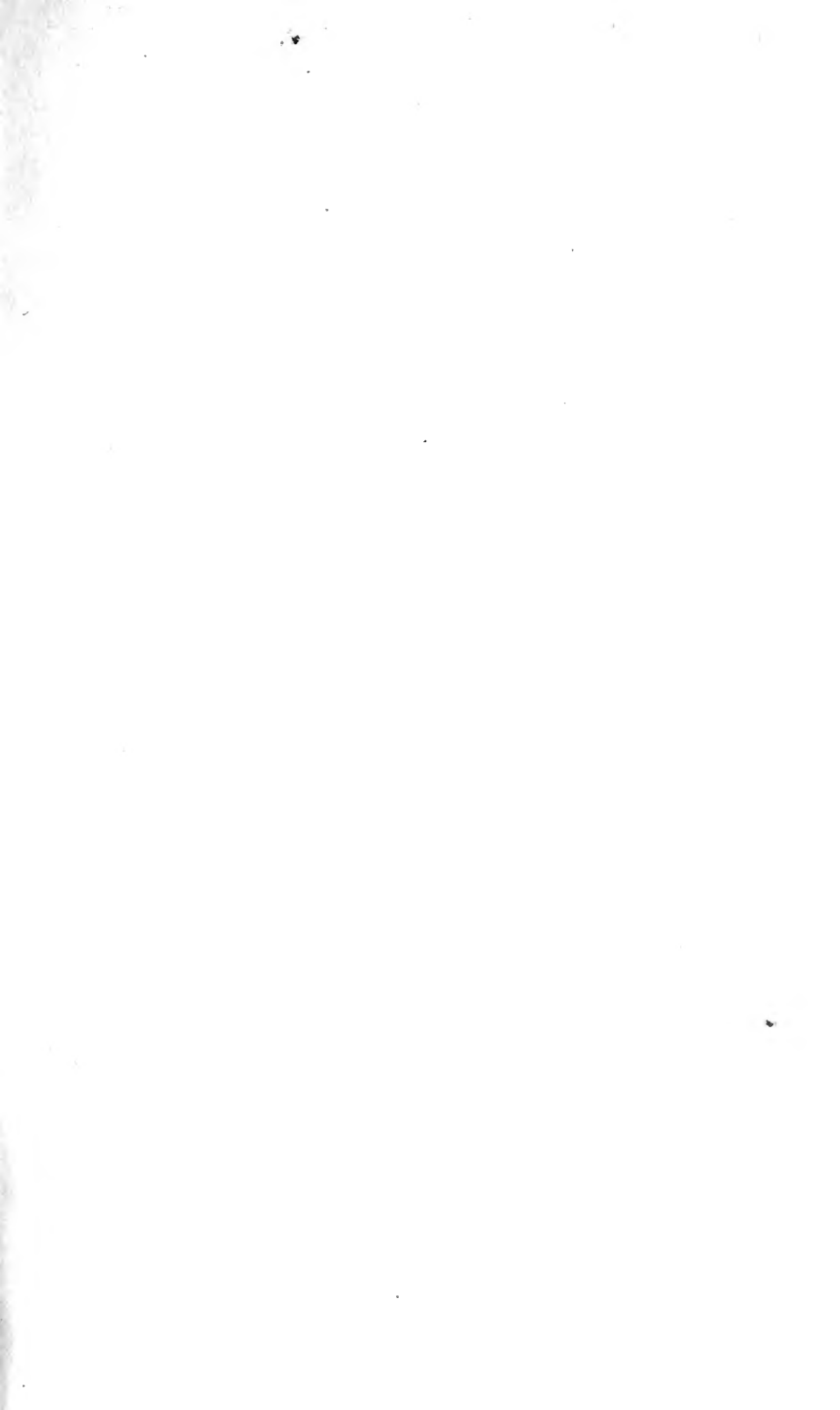
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 1943. JOHANNESBURG, South Africa, University of the Witwatersrand.
 1936. LEIDEN, Holland. Bibliotheek der Rijks-Universiteit.
 1943. LIÈGE, University Library, c/o Bibliothèque Royale, 5 Place du Musée, Bruxelles, Belgium.
 1945. LIVERPOOL. University Library.
 1946. LONDON, King's College Library, King's College, Strand, W.C. 2.
 1943. LONDON. Oxford and Cambridge University Club, 71 Pall Mall, S.W. 1.
 1929. LONDON. University of London Library, W.C. 1.
 1943. LOUVAIN, University Library.
 1936. LUND, Sweden. Universitets-Biblioteket.
 1932. MADRAS, India. The Treasurer, Madras Christian College.
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 1914. MANCHESTER. John Rylands Library, Deansgate.
 1929. NEW HAVEN, Conn., U.S.A. Yale University Library.
 1944. OSLO, Norway. Universitetsbiblioteket.
 1932. OXFORD. The Taylor Institution.
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 1929. PHILADELPHIA, Pa., U.S.A. University of Pennsylvania Library.
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 1946. SHANGHAI, China. Academia Sinica.
 1937. SHEFFIELD 10. The University Library.
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 1900. TORONTO, Ont., Canada. University of Toronto Library.
 1937. UPPSALA, Sweden. Kungl. Universitets Bibliotek.
 1929. WASHINGTON, D.C., U.S.A. Library of Congress.

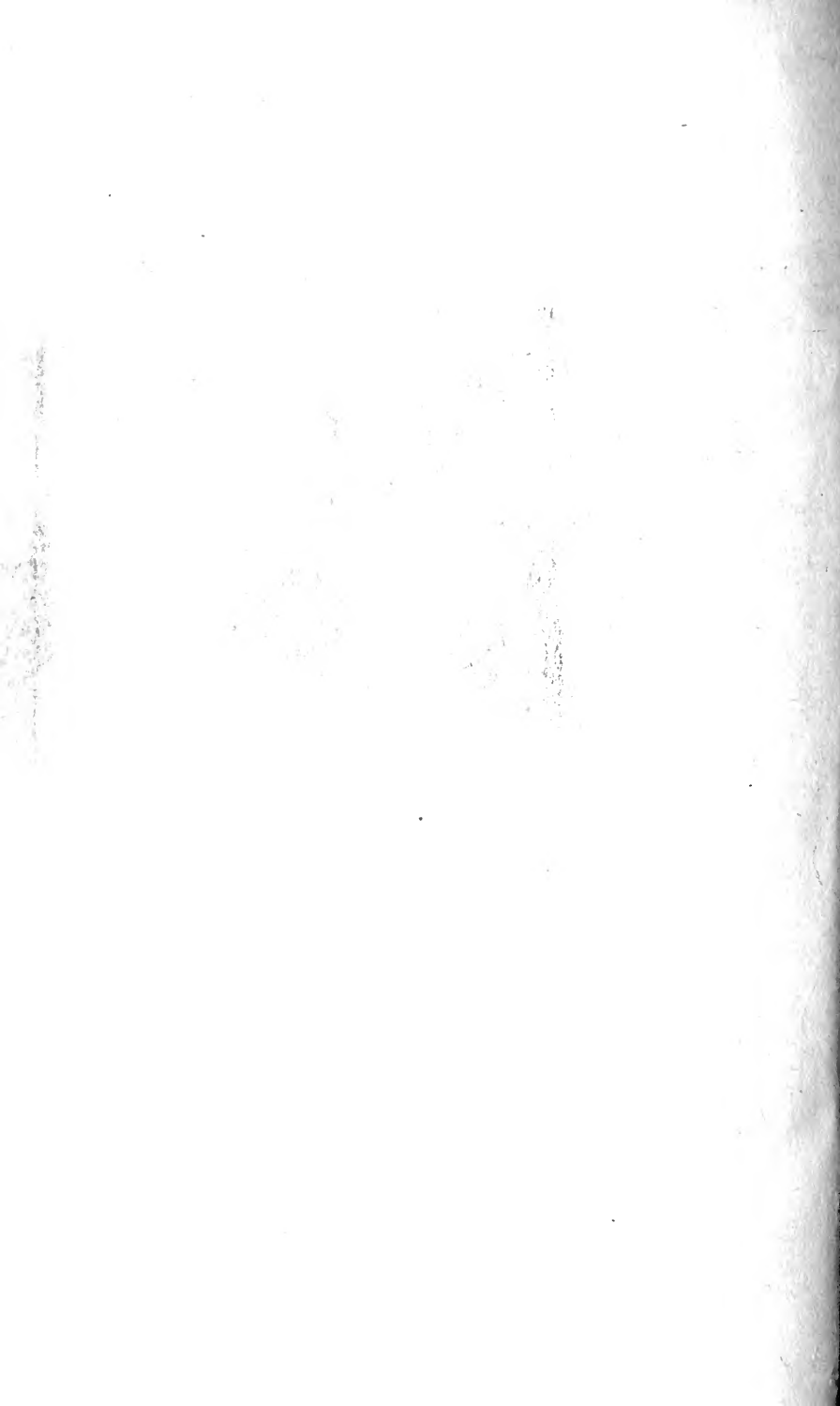
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