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## INTRODUCTION TO THE HISTORY OF THE ENGLISH LANGUAGE

## AN INTRODUCTION TO THE HISTORY OF THE ENGLISH LANGUAGE

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## PREFACE

The substance of the following chapters was delivered, in the form of County Council lectures, in London during the sessions 1907-9, and subsequently at the Summer School, St. Andrew's. It is hoped that the book will serve to introduce students of English to the somewhat neglected background of their studies. In the interest of these a certain amount of specialised material has been introduced, without, it is hoped, impairing the readableness of the book for the general public.

The bibliography is more extended than the size of the book warrants, but may serve, perhaps, as a guide for future reading. Special reference is made to the work of Darmesteter, Jespersen, Luick, Paul, and Wyld, apart from which the preparation of this book would have been impossible.

The author is under obligation to his wife for valuable help in the arrangement of the index, and to Dr. R. B. McKerrow for assistance and advice.

London, April, 1920.


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## ABBREVIATIONS

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    Adj. adjective.
    AF. Anglo-French.
    Bulg. Bulgarian.
    E. English.
    F. French.
    Ger. German.
    Germ. Germanic.
    Gk. Greek.
    Go. Gothic.
    Ic. Icelandic.
    Idg. Indo-Germanic.
    Ir. Irish.
    L. Latin.
    Lith. Lithuanian.
    ME. Middle English.
Merc. Mercian.
MHG. Middle High German.
Mod.E. Modern English.
OE. Old English.
OF. Old Erench.
OFris. Old Frisian.
OHG. Old High German.
ON. Old Norse.
Russ. Russian.
Skt. Sanskrit.
W. Welsh.
WS. West-Samon.
> becomes.
comes from.
* alongside of, compared with.
indicates a hypcthetical, or reconstructed, form
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## INTRODUCTION TO THE HISTORY

 OF THE
## ENGLISH LANGUAGE

## CHAPTER I

## THE SCIENCE OF LANGUAGE

Language has two clearly differentiated sides-a practical and a scientific-and, according as it is regarded from one, or other, of these, may be described as an art, or as a science. As an art, language is concerned with the spoken, or written, word for purposes of speaking, or writing, pure and simple. Methods of practical linguistry have often been radically defective, but new methods, based on the principle that the spoken word is the important thing, are gradually superseding obsolete ones, based on the grammar. As a science, language is concerned with the history of speech and rests upon a historical foundation. Confronted with the facts of modern speech, the philologist attempts to penetrate behind these, in order to arrive at an explanation of them. He discovers, in the course of his investigations, that the most characteristic
feature of language is fluidity, in consequence of which it is perpetually changing-that, for example, English of to-day differs greatly from that of Cædmon, or Chaucer, or even Shakespeare. He is thus enabled to throw light on the history of the language, and ultimately to trace its development, through various ramifications, from its origins down to the present day. This particular task is the province of historical grammar. At the same time, familiarity with earlier form of speech enables the investigator to trace the history of individual words, and to lay the foundations of a scientific etymology. The fact, for example, that the Old English form of acorn was æcern compels him to deny that the modern word has any real connection with corn. Countless misconceptions as to the origin of particular words (e.g. cray-fish, belfry, bondage, wiseacre) are swept away immediately the older forms are examined. A study of the history of grammatical forms will compel the student to doubt many of the classifications adopted by grammarians. An "exception" becomes a legitimate object of investigation, and is usually capable of precise explanation. The strong verbs, so often described as "irregular," were among the most regular features of the OE. verbal system; the "regular" verbs are, for the most part, mere modernisms. Irregularities in nominal, adjectival, or verbal forms often turn out to be heritages from the past and matters of historic interest. The study of a particular language, from its origins to the present day, will, accordingly, throw much light on the anomalies of modern grammatical systems.

Speech is essentially a spoken thing, and to study its history merely in the written form is to depend upon a symbol twice removed. The changes that take place in the history of a language are changes in the forms of spoken words, of which the written symbols are never more than unsatisfactory representations. Spelling may be distinctly at variance with pronunciation, cf. scent and psalm. The student of language must, accordingly, give heed to the spoken word, first and foremost, and, in the case of dead languages, attempt a precise evaluation of the sounds for which the symbols stand. Living speech provides the best material for linguistic investigation, but some training in phonetics is indispensable to any one who attempts to describe the movements of his own, or his neighbour's, vocal organs. Phonetics will prove an invaluable ally. Tendencies in modern speech throw light on those of past centuries, and a study of these is the best preparation for entering the field of comparative philology, where one is necessarily dependent upon the written word. Of spoken speech there are many varieties apart from the "cultured dialect" of the schools and universities. From the philological point of view, the unsophisticated dialect of the people is as valuable as that of the schools, though an interaction between the two is constantly taking place.

Comparative philology, the study of a number of cognate dialects, is an important part of the science of language. Problems, for the solution of which a particular dialect proves inadequate, are often solved by investigations over a wider field. Anomalies, like
plural feet alongside singular foot, cannot be cleared up by simple reference to OE. fōt, fêt ; the explanation must be sought in the cognate dialects. Nor can the complete history of any modern English word, stone, for example, be understood, unless we go beyond OE. stän, and seek with the aid of related forms, Ger. Stein, Ic. steinn, Go. stáins, etc., to arrive at the original Germanic, or Indo-Germanic, prototype. Further, the proof of the ultimate relationship of a number of dialects is the concern of the comparative philologist.

The psychological aspect of language must never be lost sight of, since language is essentially a medium of communication and possesses meaning. Its function is to convey thought, which may be served in several ways-by signs as well as by speech-sounds.

Gesture language, in so far as it serves to communicate thought, is a real language, symbolising mental processes, but no great advance is possible with such a medium, and the type of language with which the philologist deals is one composed of speech-sounds (cf. the derivation from L. lingua). Investigation of thought-processes is the province of the psychologist, but the philologist encroaches upon this territory whenever he attempts to explain changes in wordsignification. Language is a material aid to thought. A long mental process-a series of comparisons between different objects-is summarised in a name, which marks the conclusion of the thought-process. In naming an object, we sum up the results of a number of comparisons, whereby we are enabled not only to
distinguish the particular object from other objects, but also to emphasise the underlying resemblances between all objects of the same class. Assuming that we could detect differences only, we should require a separate name for everything in the universe. Names, then, sum up mental processes, and are often the result of laborious investigation, e.g. hydrogen, mammalia. But there are dangers associated with the use of language, since words may be used with only a vague notion as to their significations, in which case speech becomes mere empty sound. Still the advantages counterbalance the disadvantages. By the use of names we are able to take up thought-processes where a former generation left off, just as in a game of chess, where the position of the pieces symbolises certain stages of the development, we can return after an interval and take up the game at the point we ceased playing.

One may be so occupied within a limited area of philological inquiry as to ignore the larger problems which offer themselves for solution. Philologists have, however, interested themselves from time to time in such questions as the interconnection between race and language, or the origin of language itself. To turn for a moment to one of these, it cannot be maintained that the present state of inquiry into the origin of speech represents a great advance on that of a generation ago. Of older theories, one sought to explain the origin of language on a purely imitative basis. Primitive man, it was urged, attempted to reproduce the sounds given forth by animals and
natural objects, and applied these as names to the objects whence the sounds originated. A second theory derived primitive language from instinctive ejaculations aroused by intense feeling. Produced involuntarily by the action of certain muscles, these tended to become names. But it is significant that such ejaculations retain their primitive character down to the present day and show no signs of development. A third theory, based on the view that language is essentially a product of social intercourse, discovered the elements of speech in the sounds produced by men engaged in combined effort. It was a radical defect of all these theories that they explained only a very limited element in language. Imitation of natural sounds is a constant source of supply, but fails to account for the significant parts of any language. The range of sound-imitation, or onomatopcia, is, of course, very great. In English, we have a host of simple formations-click, cluck, clank, tinkle, whistle, croak, guggle, whiz, puff, splash, hum, buzz, chirp, whir, roar, jabber, growl, etc.-alongside of doublings, like chit-chat, ping-pong, tittle-tattle, zig-zag, hurly-burly, $j i g-j o g$, pit-a-pat, wibble-wobble, etc., in which frequent use is made of vowel-variation, or ablaut. Nursery language has given us bow-wow, puff-puff, and gee-gee, the latter of which is tending to become conventional. The imitative element in language is thus widespread, but lacking in significance. It is often forgotten that primitive man, by his very nature, must have had a wealth of sounds at his command-he was no more silent than other animals. Similarly, a child in its
early years is continually experimenting with its vocal organs. How language arose out of this babble of sounds is another question-the material of language was, at any rate, implicit therein. In contradistinction to earlier theories, it is now assumed that sentences, rather than words, formed the units of primitive speech. The elements of the sentence were, as yet, undifferentiated, and only gradually was a method of analysis suggested by variations of stress within the sentence-area. As regards vocabulary, we are forced, not only from observed facts but on psychological grounds, to deny the possibility that such conceptions as those implied in the formation of name-groups could have been evolved in a state of primitive savagery. Language has advanced slowly from the concrete to the abstract.

The question as to how we can ascertain the pronunciation of a dead language, or of a language at an early stage in its development, is one of considerable interest. Sometimes there is direct external evidence -the statements, for example, of Greek and Latin grammarians as to the values of particular symbols in their own languages, or, as regards English, the testimony of phonetic handbooks such as began to make an appearance in the middle of the 16 th century. Valuable evidence is also afforded by attempts to transcribe particular words of one language in the symbols of another. Thus, the Greek proper names, $\Pi \dot{\varepsilon} \tau \rho o s$ and $\Sigma o \lambda o \mu \omega \prime \nu$, appear in the Gothic translation of the Greek Bible as Paitrus and Saillaúmon, which suggests that Go. aí had the value of Gk. $\varepsilon$ and Go. aú
of Gk. o. By a converse process, Germanic proper names frequently appeared in Greek and Latin transcriptions. Assuming the values of the Greek and Latin alphabets of the 4th century A.D. to be known, we have a key to the pronunciation of all the alphabets of classical origin.

In general, the problem is linked up with the science of language, as a whole. A knowledge of the OE. sound-system is arrived at by a comparison of the sound-systems of the cognate languages. The subsequent history of the sounds in English depends upon the special sound-laws of that language. Variations in spelling afford a most important guide to the history of a particular word, but this must be checked by the history of other words. Mod.E. more (on the evidence of older spellings and on phonetic grounds) is assumed to be derived from ME. möre (with open $\bar{Q}$, spelt oa in Ancren Riwle), which in its turn derives from OE. mära. The statement that OE. $\bar{a}>$ Mod.E. ot holds good for every OE. त̄, except where special sound-laws (such as shortening) can be shown to have intervened. In fact, the history of any particular word must take its place in the whole series of changes to which the sound-system of a particular language is subject.

Having arrived at the earliest stage of English, another check from the direction of the Indo-Germanic sound-system is forthcoming. The long vowel in Mod.E. eight cannot be original, in view of the fact that the Indo-Germanic dialects, in general, attest a short vowel. The short vowel in Mod.E. one must
have been long originally, since the cognate languages (Germanic and non-Germanic) attest a diphthong.

The evidence for the determination of the pronunciation of such a dialect as Old English is, thus, various. Comparison with the cognate dialects and phonetic theory must form the basis of any attempt at a solution of the problem.

At this point, we may attempt a survey of the stages by which the science of language has progressed, in connection with the names of some of the more eminent 19th-century philologists. In the 18th and earlier centuries philology was a discredited science. Investigators adopted empirical methods, contenting themselves with associations based on merely superficial resemblances. It was commonly held that the European languages derived from Hebrew-a view dictated, no doubt, by theological considerations. Scientific philology began in the 19th century with Franz Bopp (1791-1867). The importance of Sanskrit among the Indo-Germanic languages had been recognised by Sir William Jones and Friedrich Schlegel, the latter of whom concluded that Sanskrit was the oldest member of the group and the parent of all the rest. Bopp's scholarship was sufficiently varied to enable him to undertake a comparative survey of Sanskrit, Zend, Armenian, Greek, Italic, Celtic, Slavonic, and Germanic, the essential unity of which he pointed out. His importance lies in the fact that he prepared the materials for a more scientific investigation at the hands of his successors. He
was convinced of the unity of the Indo-Germanic family of languages without being able fully to establish his point. Bopp, however, represented the standpoint of the early 19 th century and occupied positions afterwards abandoned. He held firmly to the monosyllabic theory of the origin of Indo-Germanic speech, of which he imagined he found evidence in Sanskrit. The longevity of this view is attested by the list of roots printed in the first edition of Skeat's Etymological Dictionary. These roots were either verbal or pronominal, the first giving birth to verbs and nouns, the second to the remaining parts of speech. Inflection grew up as a consequence of the weakening of second elements added to simple roots by a process of agglutination. A curious feature of Bopp's system was the prominence accorded to what he called "mechanical laws." Syllables were conceived as having weight, a light ending following a heavy root, and vice vers $\hat{a}$. On the question of phonetic law, Bopp displayed considerable hesitancy, for, while he recognised that languages betray an aversion for certain sound-combinations, he did not uphold the invariableness of sound-laws. In Bopp's scheme, euphony played a large rôle as a modifying force.
A. W. von Schlegel (1767-1845) was associated with the early stages of Sanskrit philology, with which he first became acquainted after middle life. Schlegel was frequently at enmity with Bopp in regard to both Sanskrit matters and the agglutination theory, championed by the latter. The views of Bopp were
destined to exert a wider influence than those of his rival, whose reputation rests, in the main, upon his Sanskrit labours.

Jacob Grimm (1785-1863) occupied a position of comparative independence alongside of Bopp. His German Grammar, published in 1819, was the pioneer of modern historical grammars. Confining himself to a limited field, Grimm showed how it was possible to present a historic view of the development of a single language from its origins down to modern times. He established his principles upon a vast mass of material, which he handled in a thoroughly scientific manner. Further, Grimm took up the researches of Rask on sound-permutation, and formulated the epoch-making law that bears his name. His successor, Pott, recognised to the fullest extent the service rendered by Grimm to the study of both special and general linguistics.

Grimm had been less concerned with general philology than with a particular department of it. Pott (1802-1887) took up the science, in its wider aspects, at the point where Bopp had ceased his labours. For, though Bopp had prepared the materials for a general comparison of the Indo-Germanic languages, he failed to discover the laws of sound-change which resulted in the formation of the separate groups of dialects. In his Etymologische Forschungen (1833-36) Pott made a serious attempt to discover the relations between cognate words in the separate Indo-Germanic dialects, and appended a scheme in which these relationships were set forth. He established the
science of language upon a phonetic basis. It is interesting to observe Pott's attitude towards the doctrine of roots-" Wurzeln sind nur ein Eingebildetes, eine Abstraction; factisch kann es in der Sprache keine Wurzeln geben." Similarly, a later investigator, Ellis, described roots as mere "investigators' hypotheses."

Apart from workers in limited fields, like Curtius, Benfey, and others, the great name after Pott was August Schleicher (1821-68), in whom are traceable the new influences of natural science and the Hegelian philosophy. To the latter is to be ascribed his favourite doctrine that history is "the enemy of speech," for history begins after man has asserted his freedom, and this is incompatible with the natural development of language. Languages exist in their purity in pre-historic times; with the dawn of history they begin a descent. Schleicher was a scientist in the first place, a philosopher only in the second: consequently, he tended to import into linguistic research the methods of natural science. Unfortunately, he chose to regard language as an organism, and so gave currency to false conceptions afterwards adopted by Max Müller and others. The influence of Schleicher on linguistic theory was immense. Turning to the special field of the Slavonic languages, he there acquired the methods he afterwards applied to the study of language in general. He worked upon a phonetic basis and devoted half his Compendium (1861) to a discussion of sound-laws. Further, he was an enthusiastic investigator of the problem of
the parent speech, at which he attempted to arrive by a systematic comparison of the cognate dialects. To Schleicher, rather than to any other investigator, we owe the foundations of the reconstructed IndoGermanic mother-tongue.

## CHAPTER II

## CLASSIFICATION OF LANGUAGES

The scientific investigation of language has passed through at least three stages-the empirical, the classificatory, and the theoretical. The first stage, the formal or grammatical, was familiar to the Brahmans, the Greeks, and the Romans, who coined the names for the leading categories of thought as reflected in language. The word case, for example, comes from L. casüs, a falling, which itself translates Gk. $\pi \tau \bar{\omega} \sigma \iota s$. In Aristotle, $\pi \tau \hat{\omega} \sigma \iota \varsigma$ signified a derived form of the simple name, and included all forms of the noun other than the nominative and all forms of the verb other than the present indicative. The word genitive is an adaptation of the L. genetivum, which replaced the Gk. $\gamma \varepsilon \nu \iota k i$, or generic case. The Latin term was, however, a misnomer for many of the recognised genitive usages. The word ablative represents L . ablätīvus, so named by Julius Cæsar from its primary function of denoting the cause, or ideal source, of an event (cf. the New English Dict.). The scholars of Alexandria were largely occupied with the study of Greek grammar, in which they hoped to discover the key to Homer and the classics. Their successors
were the Roman grammarians of the 1st to the 6th centuries, the influence of whose teaching can be traced in Europe down to the 18th century.

The second and third stages were not reached until modern times, older grammarians having been content to regard all languages other than their own as "barbarous." The comparative study of a vast number of languages has resulted in the recognition of three main groups : (1) isolating, (2) agglutinating, (3) inflectional languages. In the first, the bare root alone is employed, relationship being expressed by word-order. In the second, subordinate elements serve to express relationship, but without causing any modification in the root, cf. such formations as manly, unjustly. In the inflectional group, on the other hand, there is a tendency to combine meaning and relationship by an interaction of root and suffix, cf. foot, feet. Here belong the various members of the IndoGermanic family.

It is obvious that such a classification represents the result of laborious inquiry extended over a wide field of languages, including Chinese, Finnish, and Indo-Germanic. But a particular family of languages may show the characteristics of more than one group, and modern English offers illustrations of both agglutinating and inflectional formations. The IndoGermanic family is, however, the chief exemplar of the inflectional group.

The process whereby the limits of the Indo-Germanic family have been determined has been throughout one of comparison. Starting with a limited
number of European languages, the vocabularies of which resemble one another, the investigator finds himself compelled either to postulate derivation the one from the other, or to ascribe their resemblances to a common parent. Bopp, after a rapid survey of a number of languages, made a happy guess as to their unity. But assured results can only be secured by different investigators working in limited fields. A number of languages bearing a close resemblance-for example, Irish, Welsh, and Gaelic-are examined by one investigator. Meanwhile, another is attracted by the likeness between English, German, Icelandic, and Gothic, and from their common forms has deduced a number of types bearing a more or less close relationship to the originals from which these forms are derived. In his particular field, each investigator establishes the relationship between a number of different dialects and attempts to reconstruct the hypothetical parent of his particular group-primitive Celtic, primitive Germanic, etc. If now these original dialects can be equated and their common origin established, the material for a larger group lies to hand. That this method was actually pursued at the outset must not be supposed-it was not so with Bopp: but assured results can only be obtained in some such way.

It is impossible to account for all the resemblances between groups of languages by simply postulating derivation from one another. This was the favourite theory of the 18th century, when Hebrew was claimed as the first parent of the

European languages. Just as from an ethnographical point of view all nations were held to be derived from the Jewish, so from a linguistic point of view all languages derived from Hebrew, the primitive language of mankind. Leibnitz was the first to combat this idea and with it the rival theory of Goropius, who published a book in 1580 to prove that Dutch was the language spoken in Paradise. ${ }^{1}$ It was with difficulty, however, that philologists were weaned from the attempt to derive English from Greek and Latin, and the classical languages, in their turn, from Hebrew. So gross were the absurdities into which they fell that philology in general was exposed to the banter of satirists, like Swift and Voltaire, the latter of whom parodied the efforts of the etymologists by deriving rat from L. mûs (L. mūs, gen. mūris, adj. mūrätus, whence raitus by loss of the first element, E. rat). He gibed, too, at the current Celtomania, which claimed Breton as the original dialect spoken by Adam, Ere, and the serpent in Paradise. Swift himself set up as an amateur philologist, associating ostler with oat-stealer. The weakness of the whole fabric was ruthlessly exposed by Voltaire, "Etymology is a science in which the vowels count for nothing and the consonants for very little."

So much for the idea of deriving one language from another. It may be laid down as a general proposition that we do not know the original from which any of our modern Indo-Germanic languages
${ }^{1}$ Cf. Max Müller: Lectures on the Science of Language, vol. i. p. 149.
has sprung (the Romance group is, to some extent, an exception). We are thus forced to a reconstruction of the primitive dialects, whence by a comparison of results, we may hope to arrive at the most primitive dialect, the parent of the Indo-Germanic tongues. OE. æcer, Ic. akr, Go. akrs, Ger. Acker suggest a Germanic type *akraz. Other Indo-Germanic groups, represented by L. ager, Gk. ả $\gamma \rho$ ós, Skt. ajras, suggest *agros, and this, having the weight of evidence on its side, may be regarded as the Indo-Germanic type. Similarly, OE. freder, Ic. faðer, Go. fadar, Ger. Vater suggest Ger. *fadër, which compared with L. pater, Gk. $\pi a \tau i \rho$, Skt. pitar, leads back to Idg. *patēr. It is upon the commonest words-the numerals, pronouns, strong verbs, adverbs, prepositions, names of relationships, common phenomena, useful instruments, domestic animals-that the foundations of comparative philology have been raised. In the following examples the arrangement is according to stems, of which there are two main divisions, (a) vocalic, (b) consonantal. The value of the symbols $\chi, g, t, d$ is explained in the chapter dealing with Grimm's Law.
Vocalic stems.
a- stem, Germ. *fiska-z, Go. fisks, Ic. fiskr, OS. fisk, OE., OHG. fisc.
ja- Germ. * $\chi$ erđja-z, Go. haírdeis, Ic. hirðer, OE. hyrde, OS. hirdi.
wa- Germ *jewa-z, Go. pius, OE. pēow, OHG. deo.
ō- Germ. *geظō, Go. giba, Ic. gjqf, OE. giefu, OS., OHG. geba.
jō- Germ. *tanđjō, Go. bandi, Ic. band, OE. bend.
i- Germ. *ansti-z, Go. ansts, Ic. ást, OE. ést, OS., OHG. anst.
Germ. *sunu-z, Go. sunus, Ic. sonr, OE., OS., OHG. sunu.

Consonantal stems.
n- stem, Germ. * $\chi$ anōn, Go. hana, Ic. hane, OE. hana, OS., OHG. hano.
r- Germ. *fađēr, Go. fadar, Ic. faðer, OE. fæder, OS. fadar.
s- Germ. *agiz, Go. agis, Ic. age, OE. ege, OHG. aki.
t- Germ. *mǣæōpz, Go. mēnōps, Ic. mónopr, OE. mōnap, OHG. mānōd.

The above illustrations are from the nouns, but the adjectives, numerals, pronouns, or verbs offer an equally good choice. Thus, Go. laggs is an adjectival a- stem ; Go. brūks a ja-stem; Go. preis a numeral i- stem ; Go. sa a pronominal a-stem; Go. brūlijan a verbal ja- stem.

Assuming that by a series of minute comparisons the unity of the Indo-Germanic family of languages has been established, the question arises-How have the various dialects been differentiated from the primitive mother-tongue? The answer would involve a discussion of the nature of sound-change in general and must be deferred. But it is possible to treat independently a minor branch of the same problem-the question as to the original grouping of the various dialects. It
appears on close examination that (1) Germanic and Balto-Slavonic, (2) Celtic, Italic, and Hellenic, (3) Iranian and Indian have certain peculiarities in common. In group (1) the original free-moving accent tends to be thrust back on to the initial syllable ; in group (2) the original labio-gutturals are either preserved or converted into pure labials; in group (3) the original palatal explosives appear as continuants. Schleicher thought these facts could best be explained by assuming a common period for each of the groups. He, consequently, constructed his Stamn-baum, as follows :-


This theory was open to criticism, since groups separated in Schleicher's Stamm-baum were found to have close points of contact, e.g. Balto-Slavonic and Aryan, Germanic and Celtic, Italic and Hellenic, Hellenic and Aryan. To explain these inter-connections Schmidt propounded his Wellen-theorie, or wavetheory. He assumed an original compact speech spread
over a level plain, in which dialect-shades gradually arose. From these potential dialects sprang the various members of the Indo-Germanic group. The strength of the theory lay in its explanation of the resemblances, and at the same time of the differences, existing between various groups.


The weakness of Schmidt's theory was its inability to explain the remarkable differences that soon grew up between dialects like Italic and Celtic, without the assumption of an enormously long period of development. Leskien, accordingly, suggested a combination of the views of Schleicher and Schmidt, arguing that differentiation would tend to advance much more rapidly if early migrations were assumed to have taken place. There is still much room for scepticism in regard to all the schemes put forth, and Brugmann has pointed out resemblances between groups for which no original juxtaposition has yet been assumed, e.g. Idg. s > h in Iranian, Greek, and Welsh, Idg. n > a in both Aryan and Greek, and so on.

The members of the Indo-Germanic family are generally grouped in eight main divisions:
i. Aryan.
ii. Armenian.
iii. Hellenic.
iv. Albanian.
v. Italic.
vi. Celtic.
vii. Germanic.
viii. Balto-Slavonic.
i. The Aryan group consists of the Indian and Iranian languages. The term Aryan, formerly applied to the Indo-Germanic family as a whole, appears to have been employed originally as an epithet, with the signification "nobly born." This group is distinguished by the fact that it merges original $\breve{\bar{e}}, \overline{\bar{o}}, \overline{\bar{a}}$ into one type, viz. $\bar{a}$. It is also a satem-group, changing the original Idg. palatal explosives $\hat{k}, \hat{g}, \hat{g} h$ into continuants.
Idg. *dek̂m appear as Aryan daša (L. decem), where š $=$ sch in Ger. Schatz.
Idg. *ĝonu appear as Aryan jānu (L. genu), where $j=j$ in E. judge.
Idg. *ghimo appear as Aryan himas (L. hiems), where $h$ represents the aspirate.
The oldest remains of the Indian division are the Vedic poems ( 2000 в.c.?) consisting of four divisions, the Rig-Veda, the Yajur-Veda, the Sāma-Veda, and the Atharva-Veda. Sanslrit was the language of
the later Hindu literature, but died out as a spoken form before the Christian era. It left as its successors, Präkrit, the literary dialect of the drama, and Püli, the sacred language of the Buddhists in Ceylon. The modern Hindu dialects are represented by Hindustani, Bengali, Mahratti. The oldest specimens of Iranian are the cuneiform inscriptions, which recount the deeds of the early Persian kings (520-480 B.C.), and the language of the sacred books, preserved in the Zend-Avesta (1000 в.c.?).
ii. Armenian was not known to the West until about 500 a.d. It has been supposed to represent a descendant of Phrygian. The consonantal changes embraced under Grimm's Law are exemplified in this group.
iii. Hellenic divides itself into (a) Attic, (b) Ionic, (c)Doric, (d) Æolic. Modern Greek is equally rich in dialects.
iv. Albanian is represented by monuments of the 17th century. Its vocabulary shows a large admixture of Classical, Romance, and Slavonic words.
v. Italic includes (a) Latian, (b) Umbrian, (c) Oscan. The modern Romance languages-French, Italian, Spanish, Portuguese, and Roumanian -are derived from the lingua romana rustica of the Roman soldiery.
vi. Celtic splits into two main groups: Brythonic and Goidelic, the former represented by (a) Welsh, (b) Cornish (no longer spoken), (c)

Breton; the latter by (a) Irish, (b) Gaelic, (c) Manx.
vii. Germanic includes (a) Gothic, (b) North Germanic, represented by Icelandic, Danish, Norwegian, and Swedish, (c) West Germanic, represented by English, Frisian, Low German, Dutch, High German.
viii. Balto-Slavonic has two main divisions: (a) Baltic, represented by Lithuanian, Old Prussian, and Lettish, (b) Slavonic, represented by Old Bulgarian, Polish, Bohemian, Russian, and Serbian.

## CHAPTER III

## ELEMENTARY PHONETICS

Phonetics is concerned with speech-sounds, classified according to the condition and shape of the speechorgans most active in their production. The vocal organs, or organs of speech, combine together, more or less, to produce the spoken sounds of language.

The lungs provide the force whereby sounds are produced; they act as bellows, driving the air through the larynx into the mouth. It follows that the length of time over which a single expiration, and, in consequence, any breath-group, can be sustained depends upon the capacity of the lungs. The glottis is the opening between the vocal chords, i.e. the voiceproducing ligaments associated with the larynx. The air, as it passes through from the lungs, is modified according to the degree of contraction of the glottis. The voice-channel includes the mouth, and sometimes the nose-passages, as well as the pharynx (the hollow space above the larynx, separated from the mouth by the uvula). The shape of the voicechannel determines the particular timbre of the sound.

The velum, or soft palate, terminates in the uvula, which is flexible enough to shut off the nasal passages. The hard palate occupies the front portion of the roof of the mouth. The parts of the tongue are distinguished in succession as (a) point, (b) blade, (c) front, (d) back. The lips, teeth, jaws, and cheeks all play their part in sound-production.

Speech-sounds are divided into two great groups according as they are voiced, or unvoiced. The air, as it is expelled from the lungs, passes between the vocal chords, situated in the larynx. If the glottis is wide open the air passes without audible friction, as in the ordinary process of breathing. If the glottis is closed so that the edges of the vocal chords come together side by side, these edges may be set in vibration, and voice produced. In whisper, the glottis is (a) narrowed, or (b) closed firmly, the breath escaping, in the latter case, through an aperture between the arytenoid cartilages. The violent forcing of the glottis by the breath may be heard in an ordinary cough.

Voiced breath, produced by the vibration of the vocal chords, passes from the larynx into the voicechannel. If the shape of the channel is such as to preclude the possibility of friction, a vowel is produced. The timbre, or quality, of the vowel depends entirely upon the configuration of the voice-channel, which may be enlarged by allowing the uvula to hang loose, when the breath passes through both mouth and nose, producing a nasal vowel.

In the production of a consonant, the breath is
always more or less impeded by the shape of the voice-channel, but not necessarily voiced. Consonants may be divided into three groups: (a) According to the speech organ, or organs, most active in their formation. Hence the distinction of consonants as labials, dentals, palatals, gutturals, etc. (b) According to the nature of the impediment from which they derive their consonantal character. This may cause complete closure, in which case the consonant is called an explosive (or stop), or a series of rapidly succeeding closures, a trill, or merely friction, in which case the sound is maintained for a time and known as a continuant (or open consonant). The trills have characteristics in common with both the explosives and the continuants. Nasal consonants form a group by themselves, the air being forced in a particular direction, through the nasal cavity. In the production of 1 , the passage of the breath is impeded at the centre, but flows freely at one, or both, of the sides. In the case of the aspirate, the voice-channel is so lacking in tensity, that an extra amount of breath-force is required to make the friction audible. Tensity of the tongue is characteristic of the sound s , alternate tensity and laxity of the affricate $\mathrm{j}(=\mathrm{dzh})$. (c) According to the presence, or absence, of voice-tone. Voiced consonants are readily distinguishable from unvoiced. The vibration of the vocal chords, the source of the voice-tone, may be detected by placing the fingers against the larynx, or the hands over the ears.

|  | Explosives. |  | Continuants. |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Voiceless. | Voiced. | Voiceless. | Voiced. |
| Labials | p | b | f | v |
|  |  |  | wh | w |
|  |  |  | $[\mathrm{mh}]$ | m |
| Dentals | t | d | th | dh |
|  |  |  | s | z |
|  |  |  | sh | zh |
|  |  |  | $[\mathrm{nh}]$ | n |
|  |  |  | $[\mathrm{lh}]$ | l |
|  |  |  | $[\mathrm{rh}]$ | r |
| Palatals |  |  | $[\mathrm{ch}]$ | j |
| Gutturals | k | g |  | ng |
| Aspirate |  |  | h |  |

The labials are subdivided into bi-labials, p, b, m ; labio-dentals, f and v ; labio-gutturals, w and wh, according as the closure, or friction-passage, is formed by the two lips, the lower lip and upper teeth, or the two lips in combination with the tongue and soft palate (velum). M is a nasal bilabial, the voiceless variety of which, mh , occurs as the last phase of $m$ before voiceless sounds, when the breath is propelled through the nose with some vigour, e.g. damp, pronounced da $m \mathrm{mh} p$. Sonant m, i.e. $m$ with syllabic value, occurs in words like schism. The voiceless variety of w is less common in the South than in the North ; it forms the opening element in what.

The dentals are grouped in various ways, as alveolars, $\mathrm{t}, \mathrm{d}, \mathrm{s}, \mathrm{z}, \mathrm{sh}, \mathrm{zh}$, the nasal n , and the liquids
$l$ and $r$, the point of contact being the roots of the teeth; as linguo-dentals represented by th, dh. From the point of view of the tongue's activity, the dentals may be arranged as point-consonants, $\mathrm{t}, \mathrm{d}, \mathrm{th}, \mathrm{dh}, \mathrm{n}, \mathrm{l}, \mathrm{r}$; and blade-consonants, $\mathrm{s}, \mathrm{z}, \mathrm{sh}, \mathrm{zh}$. In the formation of sh and zh, the point of the tongue is turned upwards and the space between the tongue and the alveolars is wider than for s and $\mathrm{z}, \quad \mathrm{l}$ is specially grouped as a liquid, owing to its lack of audible friction: its formation is closely akin to that of d . Voiceless lh may be heard in combinations like kl-. Trilled r is formed by the breath passing between the roots of the teeth and the point of the tongue: voiceless rh may be heard in combinations like tr-. In standard English, between vowel and consonant, r becomes vocalic and is expressed by $\partial$, the sign for the indeterminate vowel. Palatal j in words like you is formed by raising the front of the tongue towards the hard palate up to the point of friction : the voiceless variety occurs in words like tube. In English spelling, j and ch stand for quite other sounds, the affricates dzh and tsh. In the so-called gutturals the back of the tongue comes into operation together with the soft palate ; hence, the name velar or back consonant is preferable. ng is the guttural nasal, heard in sing as well as in think.

Vowels may be classified in four different ways: $(a)^{*}$ According to the height of the tongue, in which case they are known as high, mid, or low. (b) According as the front, or back, of the tongue is active in their formation, when they are known as front or back (palatal or guttural) vowels. Neutral vowels, in the formation of
which neither the front nor the back of the tongue assumes prominence, are called mixed. (c) According as the tongue is tense or slack, in which case they are known as close, or open (narrow or wide, tense or slack). (d) According as the lips are rounded or unrounded, producing round, or unrounded, vowels respectively. A complete description of any vowel involves a consideration of all these points.

The vowels of standard English may be classified as follows :-

Front.
High in preety (open). i in feet (close).
Mid è in red (open). à in father (open). o in father (open). $\overline{\mathrm{e}}$ in hate (close). a in but (close).
Low $æ$ in hat (open).

Front.
High
Mid
Low
Rounded.
Back. Mixed.
u in put (open).
$\bar{u}$ in mood (close).
$\bar{o}$ in pole (close).
$q$ in not (open).

Unrounded.
Back.
Mixed.
$\overline{8}$ in law (close).
It should be abserved that long vowels are usually close and short vowels open in English. The long " vowels are followed in standard English by off-glides, which have developed since the close of the 18th century :

$$
\begin{aligned}
& \overline{1}^{i} \text { in see. } \\
& \bar{e}^{i} \text { in day. } \\
& \bar{\varepsilon}^{\theta} \text { in there. }
\end{aligned}
$$

## ELEMENTARY PHONETICS <br> $$
\begin{aligned} & \bar{Q}^{v} \text { in law. } \\ & \bar{o}^{\mathrm{u}} \text { in no. } \\ & \overline{\mathrm{u}}^{\mathrm{u}} \text { in two. } \end{aligned}
$$

Diphthongs are double sounds, combinations of two simple vowels with sufficient stress on the first elements to reduce the second to their consonantal values : ai $=$ i in wine, $\mathrm{au}=$ ow in cow, $\mathrm{q} \mathrm{i}=\mathrm{oi}$ in boil.

## CHAPTER IV

## SOUND-CHANGE

The term sound-change is a comprehensive one, embracing all the modifications constantly occurring in spoken language. It suggests a fascinating field for research, and the literature to which it has given birth is already extensive. The basis of the investigation is psychological, but phonetics has proved an invaluable ally by suggesting particular lines along which change may be anticipated. Language tends constantly in the direction of change, and is always in a state of flux. In civilised countries, the tendency is checked by various external influences-the spread of state education, extended means of communication, the universal habit of reading, etc. But it remains below the surface and gradually forces its way upwards. There are obvious differences between the English of Cædmon and that of to-day: it is less obvious that, quite apart from vocabulary, modern English is very different from that of Shakespeare. To take an example from a period so recent as the 18th century. Pope is known to have lavished extreme care upon his verse, yet he rhymes " line" with " join" and "obey" with "tea".

The natural explanation is that the sounds in one or other of these rhymes have changed.
> " Here thou, great Anna, whom three realms obey, Dost sometimes council take-and sometimes tea."

$T e a$, rhyming with obey, was, in fact, a fashionable 18th-century pronunciation. In modern colloquial English the same tendencies in the direction of change may be observed, particularly among the younger generation, who incline to pronounce sure as shaw, poor as paw, etc.

The fact of sound-change being admitted, we are confronted with the main problem-Why does language tend to change? The answer lies in the psychological and phonetic conditions that accompany the process of language-acquisition. Speech is learnt in childhood-by what process?

A word is spoken and, at the same time, a gesture may serve to indicate the object referred to. A double set of impressions are immediately conveyed to the brain, one embodying the visual sensations aroused by the object itself, the other the acoustic sensations aroused by the spoken word. The latter alone have any importance in connection with sound-change and may, therefore, be regarded as the first of our speech elements. At the outset the mental impression is not very definite, and it is only after the sound has been heard several times that we acquire a clear acoustic impression of it. The first attempt to reproduce the sound will meet with but moderate success: the vocal organs fail to adapt themselves, immediately, to untried positions.

Yet it cannot be held to have been properly uttered until the acoustic impression of the sound as produced by ourselves conforms with that of the same sound as produced by our neighbours.

There are other factors connected with the process of language-learning. By pronouncing a word several times we acquire a mental impression of the movements associated with the production of the soundsa motory impression, which enables us to perform the same process as often as we wish. Without the acoustic impression we should not know what sounds to produce, without the motory impression we should not know how to produce them. The two sets of impressions, or pictures, remain permanently associated in the mind. Later on, other pictures will be added to these-pictures of the written word and of the movements associated with the act of writing. A perfect knowledge of any language assumes the complete co-ordination of all these memory-pictures.

The causes of sound-change must be sought in the memory-pictures. In pronouncing a particular word, the vocal organs do not always occupy exactly the same positions, though we are unconscious of any difference in the motory sensations, or in the acoustic effects-the last impression conforming sufficiently well with its predecessors to preclude the sensation of novelty. A certain amount of latitude (Spiel-raum) is thus possible in the production of a particular sound. As a matter of fact, sounds produced with the slightest variation in the positions of the vocal organs must be different, though the ear is
unable to detect the shades of difference, or is undisturbed by them up to a certain point. As Paul expressed it in his Principles," The sound-picture corrects tendencies to change, but it will never be in the power of the motory sensations of each individual to satisfy completely the sound-picture which floats before him." It is, then, in the motory and acoustic impressions that the causes of sound-change consist. The slightest deviations in pronunciation are mentally recorded and the sum-total of these goes to form a new impression. But nature does not advance by leaps, and many generations may pass before the sound is recognised as new.

So far, sound-change has been considered exclusively from the standpoint of the individual. But language is a medium of communication and meaningless apart from society. The theory, expressed by Schleicher in his Stamm-baum, that language develops like a tree is no longer tenable; it is essentially a spoken thing and has no permanence apart from the memory-pictures-the sole connecting-links in the history of language. Language does not exist apart from man. Again, the power of an individual to give currency to a particular sound depends upon the co-operation he receives from the community, and the direction in which a particular sound tends to change depends upon the speech-habits of the community.

The term "community" needs some explanation, since a consideration of the relationship existing between individuals and their environment brings us into contact with groups of varying size, any one of
which may be so termed. The smallest of the linguistic groups is the family, often described, from another point of view, as the real social unit. Individuals learn their language in the family circle, the members of which tend to have certain speechhabits in common. The particular speech-colour, characteristic of this linguistic group, is acquired by the learner and remains permanently with him. A second group, represented by the hamlet or town, is based on natural, rather than social, conditions. The habit of close inter-communication between its members results likewise in a particular speechcolour, and gives rise to the patois. The province, representing a still larger area, has its particular dialect. Finally, the country as a whole, bound together by physical, religious, and political factors, develops a language. For general purposes, it is convenient to consider only the larger groups-the language, the dialect, the patois-though it should be borne in mind that there are many subdivisions based on the family, the school, trade, and society groups.

The tendency towards sound-change is not, on the whole, recognisable in adult speech, though fashion is capable of introducing some modifications. The group in which individuals move exercises a restraining influence upon them, and they are not free to deviate beyond certain limits of pronunciation. The case is different with the child, who in imitating a particular sound may start from a slightly new point, admitting of wider deviation from the norm. The part played by sound-transmission in the development of language
is now fully admitted. "The younger generation," says Paul, "must always have a tendency to change, and they are without the motor sensation-pictures which the older generation possessed." Other factors, such as climate and race-mixture, play a part in soundmodification, and are capable of affecting even adult speech.

Does language change sporadically? A section of the German philologists, headed by Osthoff, reply in the negative. Sound-laws, they assert, are invariable. This view is not unreasonable, provided we make full allowance for the influence of analogy and individual idiosyncrasies, and recognise the limited field in which any particular sound-law operates. The position adopted by Victor Henri seems reasonable: "If a given sound, or group of sounds, in a given position, has undergone such or such mutation, it must needs have undergone the same change in every word (of the same language) wherein it happened to occupy the same position." The psychical basis has been explained by Paul: "A motory sensation does not form itself specially for every word, but in every case where the same elements recur in language their production is guided by the same sensation."

Two main kinds of sound-change are recognised by phoneticians: (i.) isolative, (ii.) combinative. In the former, the changes occur independently, and from more or less unknown causes. Passy has classified certain general tendencies in language, whereby front vowels tend to become unrounded, long vowels to become narrow and short vowels wide, voiced consonants
to become voiceless in final position, and so on. But the causes of isolative sound-change have not, as a whole, been reduced to a system. ${ }^{1}$ The following illustrations may be given.

Germ. au (stressed) is represented by Go. au, Ic. au, OS. ō, OHG. ou, OE. ēa.
Germ. eu by Go. iu, Ic. ió, OS. èo, OHG. èo, OE. ēo.
Germ. ai by Go. ái, Ic. ei, OS. è, OHG. ei, OE. ā.
Germ. $\bar{a}$ by Go. $\bar{a}$, Ic. $\bar{a}$, OS., OHG. $\bar{a}$, OE. $\bar{o}$.
Germ. $\bar{x}$, by Go. ē, Ic., OS., OHG. $\bar{a}, \mathrm{OE} . \overline{\boldsymbol{m}}(\bar{a})$.
Germ. è by Go., Ic., OS., OE. è, OHG. ia.
Germ. ō by Go., Ic., OS., OE. ō, OHG. uo.
Germ. ū by Go., Ic., OS., OHG., OE. ū.
Germ. a by Go., Ic., OS., OHG. a, OE. æ (a).
Germ. e by Go. i, Ic., OE., OS., OHG. e.
Germ. e + nasal + consonant by Go., Ic., OE., OS., OHG. i.
Germ. i by Go., Ic., OE., OHG., OS. i.
Germ. o by Go. u, Ic., OE., OS., OHG. o.
Germ. u by Go., Ic., OE., OS., OHG. u.
Combinative sound-changes are the result of influences exerted by sounds upon their neighbours. They partake generally of the nature of assimilation. To this class belong the Old English sound-changes known as $i$-Mutation, Breaking, Palatal diphthongisation, and $u / a$-Mutation.

[^0]i-Mutation.
(1) OE
$\quad \rightsquigarrow>e$
(2) OE. $\quad \mathrm{u}>\mathrm{y}$
(3) OE. $\quad \mathrm{o}>\mathrm{e}$
(4) OE. ea $>\mathrm{i}$
(5) OE. iu $>$ ie
(6) OE. $\bar{a}>\bar{æ}$
(7) OE. $\overline{\mathrm{u}}>\overline{\mathrm{y}}$
(8) OE. $\bar{o}>\bar{e}$
(9) OE. ēa $>$ ie
(10) OE. iu $>$ ie

Brealing.
(1) OE. $\quad x>$ ea
(2) OE. $\quad \mathrm{e}>\mathrm{eo}$
(3) OE. $\quad \mathrm{i}>\mathrm{i} \mathrm{o}$
(4) OE. $\overline{\mathrm{x}}>\mathrm{e} \mathrm{e}$
(5) OE. $\mathrm{i}>\overline{\mathrm{1}} \mathrm{o}$
(atal diphthongisation.
(1) OE. e > ie *getan > giefan
(2) OE. æ $>$ ea *gæb $>$ geaf
(3) OE. $\bar{x}>$ ēa *ḡ̄øun $>$ gēafon
u/a-Mutation.
(1) OE. $ャ>$ ea $\quad$ ffæru $>$ fearu
(2) OE. e $>$ eo *etur $>$ eofor
(3) OE. i $>$ io *riđun $>$ riodon

In the case of i-mutation, the effect is in the nature of a palatalisation, the stressed vowel becoming more palatal under the influence of a following $i$ or $j$, which
acts through the intervening consonant. The changes embraced under breaking, $u / a-m u t a t i o n, ~ a n d ~ p a l a t a l ~$ diphthongisation result from the introduction, before or after the stressed vowel, of a glide, which ultimately combines with the vowel to form a diphthong. In the first two cases, the cause of the diphthongisation is to be sought in the guttural sounds that follow upon the stressed vowel; in the last, in the palatal sounds preceding the stressed vowel.

## CHAPTER V

## GRinm's Law

Germanic is a member of the Indo-Germanic family of languages, but possesses the peculiarity of modifying certain consonants in initial, medial, and final positions. Thus, L. pater corresponds to English father, and L. fräter to E. brother. To realise the extent of these modifications it will be necessary to examine, side by side, a number of words selected from different groups of the Indo-Germanic family (p. 42).

With some such list before him, Grimm came to the conclusion that the correspondences were regular, and in a letter to Lachmann in 1820 he gave the first hints of the discovery, set forth in full in his German Grammar of 1822. Grimm's mnemonic ${ }^{1}$ for the correspondences took the following form :-


[^1]| Aryan. | Hellenic. | Italic. | Celtic. | Balto-Slavonic. | Germanic. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 荋 Skt. trayas | Gk. $\tau$ ú <br> Gk. $\tau \rho \epsilon \bar{i}$ | L. tū | W. tri | Lith. trys | OE. $\bar{b}_{\bar{u}}$ <br> Go. breis | Ger. du Ger. dre |
| ${ }_{\text {M }}^{\text {d }}$ Skt. pād- | Gk. $\mathrm{Tou}^{\text {cos }}$ | L. pēs |  |  | OE. fōt | Ger. Fuss |
| \% | Gk. $\kappa \omega \dot{1} \pi$ | L. capio | W. cael |  | Go. hafjan | Ger. heben |
| \% Skt. rudhiras | Gk. Ėpuppos | L. ruber |  |  | Go. ráubs | Ger. rot |
|  | Gk. $\phi \rho$ áànp | L. frāter | W. brawd | Russ, brat | Go. brōpar | OHG. pruoder |
| $\stackrel{\square}{\circ}$ |  | L. hostis |  | Bulg. gosti | Go. gasts | Ger. Gast. |
| (is Skt. daša | Gk. décka | L. decem | W. deg | Lith. deszimtis | Go. taíhun | Ger. zehn |
| 㽞 |  |  |  | Bulg. dubus | Go. diups | Ger. tief |
| - Skt. jugam | Gk. $\left\langle u \gamma^{6} v\right.$ | L.iugum | W. iau | Bulg. igo | Go. juk | Ger. Joch |

But this was open to two main objections:
(1) The Aspiratae comprised two different series of sounds : (a) the Indo-Germanic aspirates, sometimes described as formed by the union of voiced explosives and breath ; (b) the Germanic voiceless continuants in words like Go. preis.
(2) The Mediae comprised not only (a) the IndoGermanic voiced explosives, but also (b) the Germanic voiced continuants, for the $d, b, g$ developed in Germanic out of Idg. dh, bh, gh were originally continuants $\mathrm{d}, \mathrm{b}, \mathrm{g}$, as proved by their survival in words like Ic. nifl (Skr. nábhas), Go. liufs (Skt. lúbhyämi), with unvoicing in the latter case.
Grimm's Law, as originally stated, was too general to cover all the facts. We must remember (1) that the shifting was very imperfectly carried out in the case of the labials; (2) that other laws, since propounded by Ascoli, Verner, Kluge, etc., might come into operation; (3) that the second sound-shifting, exemplified in High German, followed lines of its own and was imperfectly carried out. Grimm's scheme, constructed for the sake of theoretical completeness, was actually little more than "an aggrandisement of rough rules to ideal completeness."

The imperfection in the labials is seen particularly in the case of the Idg. voiced explosive, the shifting of which can be illustrated in only three or four instances. Bulg. slabu apparently corresponds to E. sleep, and Gk. ßaírı to Go. páida, but other examples are far to
seek. The second sound-shifting is likewise carried out-imperfectly: E. three, Ger. drei ; E. daughter, Ger. Tochter ; E. tear, Ger. Zähre ; but E. foot, Ger. Fuss; E. heave, Ger. heben; E. bath, Ger. Bad; E. give, Ger. geben ; E. callow, Ger. kahl.

It is important to note as exceptions to Grimm's law that
(1) Idg. $s t, \mathrm{sp}$, sk were not liable to change.
I. stella, E. star; L. specio, E. spy; L. miscere, OE. miscian.
(2) Idg. pt > Germ. ft Gk. клє́ $\pi \tau \eta s \quad$ Go. hliftus kt $>$ ht L. noctem Ger. Nacht
(3) Idg. tt $>$ Germ. ss Skt. sattas OE. sess

Further, each of the Indo-Germanic dialects possessed its own sound-laws, and we must not expect to find exactly the same correspondences throughout the non-Germanic dialects. Sanskrit is a good guide in the matter of the consonants, and, following its lead, we may suppose that the original relationship was as follows:


Apart from Sanskrit, the non-Germanic dialects deviate from the type, like Germanic itself. This is especially observable in their treatment of the original Idg. voiced aspirates. Greek changed these into voiceless aspirates, e.g. Gk. фદ́pst alongside of Skt.
bharami. In Latin, the voiced dental aspirate appeared as $f$, and after $m, r$, $u$, or before 1 and $r$, as $b$ or d, e.g. L. über alongside of Skt. udhar. Celtic and Balto-Slavonic developed explosives, e.g. W. brawd alongside of Skt. bhrätar, Lith. bebrus co Skt. babhruš. ${ }^{1}$

Again, the so-called gutturals are to be distinguished as (1) pure gutturals, (2) labio-gutturals, (3) palatals. In the second case, that is to say when the original gutturals were pronounced with a slight labial articulation, Hellenic and Italic either preserved them or developed pure labials (or dentals), while Aryan and Balto-Slavonic show pure gutturals.

Balto-
Idg. Aryan. Slavonic. Hellenic. Italic. Germanic. $\mathrm{g}^{\mathrm{u}}$ h Skt. hanmi
gu Skt. gāus
$\mathrm{k}^{u} \quad$ Lith. leku Gk. $\lambda \epsilon^{\prime} \pi \pi \omega \quad$ L. linquo Go.leihwan
On the other hand, when Idg. gh, g, and k were palatals, Aryan and Balto-Slavonic developed continuants.

Balto-
Idg. Aryan. Slavonic. Hellenic. Italic. Germanic. ghh Skt.hamsa- Lith. zasis Gk. $\chi \dot{\eta} \nu \quad$ L. (h)anser OE.gōs $\hat{g}$ Skt.jnā Lith.zinōti Gk. $\gamma \iota \gamma \nu \omega ́ \sigma \kappa \epsilon \iota \nu$ L.gnoscere OE. cnāwan šatam Lith. szimtas Gk. éкarov L. centum OE. hund istinction between the original Idg. gutturals palatals was recognised, after Grimm, by Ascoli.
An important supplement to Grimm's Law was formulated by Verner in 1877, as follows: "Idg. $k, t$, p gingen erst überall in h , th, f über; die so entstanden tonlosen fricativæ, nebst der vom indogermanischen ererbten tonlosen fricativa s, wurden

[^2]weiter inlautend bei tönender nachbarschaft selbst tönend, erhielten sich aber als tonlose im nachlaute betonter silben." Verner's law thus supplements that of Grimm, for, while the latter laid down the correspondences Idg. k, t, p > Germ. h, th, f, Verner explained how Germ. h, th, f might develop further into their voiced varieties $g$, $đ, \hbar$, when the accent did not immediately precede. It should be noted that Germ. g, đ were represented in Go. and OE. by g, d, Germ. t by Go. b and OE. f (=v), and Germ. z (from Idg. s) by Go. s. and OE., OHG. r. Examples are OE. sēgon (originally accented on the suffix) $\infty$ OE. seah (Grimm's law), OE. soden $\infty$ sēođ̃an, O.E. froren co frëosan. Further, the differences between Skt. pitár $\infty$ OE. fæeder and Skt. bhrátar $\infty$ OE. bröđor are due to the original accentuation. The original free-moving accent is, thus, accountable for the varying correspondences: Idg. $t>$ Germ. $p$ or d, Idg. k $>$ Germ. h or g, Idg. s $>$ Germ, s or $r$, in nominal, adjectival, and verbal forms.

Sanskrit.
Gothic.
bhárami
bhárasi
bhárati baírip (<*bharáti)
bhárāmas
bháratha
bháranti baírand (<*bháranti)
Again,
Go. dáupus
OE. dēad
Go. swaíhra
OE. sweger

## Go. ráus OHG. rōr <br> Go. paúrsus OE. pyrre

A supplement to Grimm and Verner has been formulated by Paul and Kluge. According to the former,

Idg. ghn', dhn', bhn' $>$ Germ. gn, đn, tn
and Idg. $\mathrm{kn}^{\prime}, \mathrm{tn}^{\prime}, \mathrm{pn}^{\prime} \quad>$ Germ. gn, đn, 加 owing to the post-position of the accent. These combinations were assimilated to gg, đđ, 站 respectively, according to Paul and Kluge, whence arose the explosives gg, dd, bb. Under Grimm's law there was a further shifting to $\mathrm{kk}, \mathrm{tt}, \mathrm{pp}$. Cf. Idg. *smukn"nó> Germ. *smuhná (Grimm's law) > *smugná (Verner's law) > *smugga (Paul-Kluge's law) > *smukka (Grimm's law) > OE. smocc.

Paul and Kluge's law thus proves the comparative lateness of the shifting of the Idg. media in Grimm's scheme.

Some additional examples of Grimm's law may be given in conclusion :-
1dg. voiceless explosives. Germ. voiceless continuants. L. trabs, Lith. troba, W. Go. paúrp, OE. porp tref
Gk. $\tau \rho \varepsilon \neq \mu \omega$, L.tremo, Lith. Go. pramstei, OS. primtrimu
L. piscis, Ir. iasc

Gk. $\pi \frac{\rho}{}$ śvo $\mu a$, L. portāre, Bulg. pera
Gk. ảкои́ $\omega$
L. captus, Ir. cacht

Go. hausjan, Ic. heyra
Go. hafts, Ic. haptr

Idg. voiced explosives. Gk. $\delta \varepsilon \xi \notin o ́ s, ~ L . ~ d e x t e r ~$ Gk. סó $\mu$ оя, L. domus

Gk. $\beta$ aírı
Gk. $\gamma^{\prime} \nu v$ us, W. gen
Gk. $\gamma$ óvv, L. genu
Idy. voiced aspirates.

Gk. $\theta$ v́pa, L. fores
Gk. $\phi u ́ \omega$, L. fui
Gk. $\phi \underline{p} \rho \omega$, L. fero
Gk. Хópтос, L. hortus
L. haedus

Germ. voiceless explosives.
Go. taíhswa
Go. timrjan, OE. timbrian
Go. páida, OE. pād
Go. kinnus, OE. cinn
Go. kniu, OE. cnēo
Germ. voiced continuants
(or explosives).
Go. dōms, Ic. dómr
Go. daúr, OE. duru
Go. bauan, OE. būan
Go. baíran, OE. beran
Go. gards, Ic. gardr
Go. gáits, OE. gāt

## CHAPTER VI

## GRADATION OR ABLAUT

The term Ablaut, for which gradation is sometimes substituted in English, was coined by Grimm, who embraced under it the various alternations of vowel quality and quantity in allied words, characteristic of Indo-Germanic speech. Such alternations may be detected, in greater or less degree, in all the IndoGermanic languages-a fact which suggests that they were a characteristic feature of the original mothertongue, the Indo-Germanic Ursprache. But soundlaws, operating in the different members of this speech family, have obscured much of the original system, so that, starting for example from Modern English, we should be unable to advance far towards a reconstruction of the original condition of things without availing ourselves of the assistance of a number of cognate languages. Greek, which has preserved the original system with great exactness, affords valuable help, in contradistinction to Sanskrit, which is more retentive of original consonants than of vowels. The first examples may, accordingly, be selected from Greek.

| дء́ $\mu \omega$, I build; סó $\mu \mathrm{os}$, a house <br> $\phi \varepsilon ́ \rho \omega$, I bear; фópos, tribute <br> $\lambda \hat{\varepsilon} \gamma \omega$, I speak; $\lambda$ ó $\gamma o$ os, a word |
| :---: |
|  |  |
|  |  |
|  |  |

It is important to note that in each group the words are cognate, i.e. closely allied in form and meaning, and that, from a formal point of view, they differ merely in the quality of their vowels and diphthongs. That these variations were due to soundlaws operating exclusively in Greek is impossible; they may be found elsewhere and represent a heritage from the undivided mother-tongue.

Turning to Modern English, similar alternations are apparent in the principal parts of the so-called strong verbs:

| 1. drive | drove | drove | driven |
| :--- | :--- | :--- | :--- |
| 2. choose | chose | chose | chosen |
| 3. drink | drank | drank | drunk |
| 4. bear | bore | bore | borne |
| 5. give | gave | gave | given |
| 6. shake | shook | shook | shaken |
| 7. hold | held | held | held |

A more archaic system is traceable in the corresponding forms of the Old English and Gothic verbs:

| 1. OE. drifan | dräf | drifon | drifen |
| ---: | :--- | :--- | :--- |
| Go. dreiban | dráib | dribum | dribans |
| 2. OE. cēosan | cēas | curon | coren |
| Go. kiusan | káus | kusum | kusans |
| 3. OE. drincan | dranc | druncon | druncen |
| Go. drigkan | dragk | drugkum | drugkans |


| 4. OE. beran | bær | b̄̄ron | boren |
| :--- | :--- | :--- | :--- |
| Go. baíran | bar | bērum | baúrans |
| 5. OE. giefan | geaf | gēafon | giefen |
| Go. giban | gaf | gēbum | gibans |
| 6. OE. sceacan | sceōc | sceōcon | sceacen |
| Go. *skakan | skōk | skōkum | skakans |
| 7. OE. healdan | hēold | hēoldon | healden |
| Go. haldan | haíhald | haíhaldum haldans |  |

A comparison between these latter and the cognate verbs in the other Germanic dialects results in the following types:

|  | rītan | đrait | đritum | đritano |
| :---: | :---: | :---: | :---: | :---: |
| 2. | keusan | káus | kusum | kusano |
| 3. | đrenkan | đrank | đrunkum | đrunkan |
| 4. | teran | bar | もǣrum | turano |
| 5. | getan | gat | gఇ̄ちum | getano |
| 6. | skakan | skōk | skōkum | skakano |
| 7. | $\chi^{\text {aldan }}$ | $\chi$ e $\chi^{\text {ald }}$ | $\chi$ ¢ $\chi^{\text {aldum }}$ | $\chi^{\text {alđano }}$ |

The close relationship between these hypothetical Germanic types and their Indo-Germanic originals will be apparent from the following table. It is the vowels alone with which we are concerned, and (neglecting the past plural for the moment) the systems may be compared as follows:

| 1. Germ. Idg. | ei |  |
| :---: | :---: | :---: |
| cf. Gk. दi'iouat | oi $\delta$ a | $\chi^{\prime} \delta \mu \varepsilon \nu$ |
| 2. Germ. | eu | au |
| Idg. | eu | ou |




This class is distinguished from class 4 by the occurrence of double consonants in the root, the first being either $m, n, r$, or $l$.

| 4. Germ. | er | ar |
| :---: | :---: | :---: |
| Idg. | er | or |
|  | фор ¢́ $\omega$ | Sípoos |

In this class either $\mathrm{l}, \mathrm{m}$, or n may replace r .
5. Germ.
e a
e
(by analogy with the infinitive)


In class 6, owing to the fact that Idg. a and o coalesce as Germ. a, and Idg. $\overline{\mathrm{a}}$ and $\bar{o}$ as Germ. $\bar{o}$, the series is of mixed origin. Ic. aka belongs to class 4 below, Ic. taka to class 5, OE. standan and OE. bacan to class 6, a representing Idg. ə in the last three cases.

In class 7 the initial consonant is reduplicated, with, or without, vowel gradation.

The first five classes have an important characteristic in common, namely, that they all represent the gradation e: o, either in its simple form, or strengthened
by combination with the semi-vowels $i$ and $u$, or with the sonants $\mathrm{r}, \mathrm{l}, \mathrm{m}, \mathrm{n}$. Of these the e-variety is sometimes distinguished as the full, the o- as the deflected, grade. An explanation for the gradation is not easily found. Possibly, it arose out of variations of pitch, e being associated with a high, o with a low toneaccent. The pitch, or chromatic, accent was assumed by Verner for the earliest stages of Indo-Germanic, and is still represented in Lithuanian, Swedish, and elsewhere. Other facts suggest that, in all probability, pitch was combined with stress, or expiratory, accent. "One syllable was uttered with greater force than the others together with either a rising or a high level tone, any following syllable being then uttered with diminishing stress and a falling tone, unless it was followed by another acute accent, in which case it became a low level or grave tone, every syllable before an acute or after a falling tone being grave " (Sweet). The stress accent must necessarily be appealed to when we seek an explanation of quantitative, as opposed to qualitative, gradation. The reduction (cf. the constant qualities $i, u, n, r$ in classes $1-4$ of the preceding series), and in some cases the complete disappearance (cf. class 5), of syllables in primitive Indo-Germanic is explicable only on the assumption of a strong expiratory accent. In compensation for the loss of weak syllables, long vowels and diphthongs also appeared alongside the original shorts in the vowelseries, è alongside of e, and ō alongside of o, etc. The long vowels in the past plurals of the OE. classes 4 and 5 represent such a quantitative gradation.

Just as e and o take their places side by side in the gradation series, so with a and $o$, or even è and $\bar{o}$, $\bar{a}$ and $\bar{o}$, since long vowels are not necessarily of quantitative origin. If we associate with these their lengthened and reduced forms, we arrive at some such system as the following for primitive IndoGermanic:

Full. Deflected. Reducer. Full. Deflected. Reduced.

| 1. ei | oi | i | ēi | ōi | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2. eu | on | 11 | èu | ōu | ū |
| 3. e | o | - | $\overline{\text { è }}$ | $\bar{\square}$ | ө |
| 4. a | 0 | - | $\bar{a}$ | ō | ə |
|  | ${ }_{0}$ | ə |  |  |  |
| 6. $\bar{a}$ | $\overline{0}$ | ө |  |  |  |

The reduction of the Idg. long vowels is represented by the "indeterminate vowel" $\partial$, which appears in Sanskrit as i, and elsewhere as a. The long diphthongs were modified in the older dialects, and are not illustrated below.

1. Gk. $\lambda_{\varepsilon} i \pi \varepsilon \iota \nu$ (ei), $\lambda \varepsilon ́ \lambda o \iota \pi a$ (oi), $\lambda_{\iota \pi \varepsilon \imath ̂ \nu}$ (i)

Go. steigan (ei), Ic. stigr (i)
L. acclīuis (ei), Gk. $\kappa \lambda_{i \nu \varepsilon \iota \nu}(\overline{\mathrm{i}})$
2. Gk. $\pi \varepsilon ์ ́ \theta$ oual (eu), $\pi$ и́ $\sigma \tau \iota \varsigma$ (u)

OE. hlēotan (eu), Go. hláuts (ou), Ic. hlutr (u)
Go. láuk (ou), OE. lūcan ( $\overline{\mathrm{u}}$ )
OE. bēon (eu), Gk. ф́́oual (u), OE. būan (̄̄)
3. Gk. $\tau \rho \bar{\epsilon} \pi \omega$ (e), $\tau \rho \circ \pi \grave{\jmath}$ (0), $\tau \rho \omega \pi \dot{a} \omega(\bar{\omega}), \tau \rho a \pi \varepsilon \hat{\nu}$ (ә)
L. pedem (e), Gk. $\pi o ́ \delta a ~(o), ~ G k . ~ \grave{~} \pi i \beta \delta \delta_{a}(-)$, OE. fōt (ō).
4. Gk. ǎ $\rho \chi \omega$ (a), ő $\rho \chi a \mu о \varsigma$ ( 0 )
L. ago (a), Gk. ő $\gamma \mu \boldsymbol{\rho}$ (o)

Go. hana (a), OS. hōn ( $\overline{\mathrm{c}}$ )
5. Gk. $\lambda$ í $\gamma \varepsilon \iota \nu$ (ē), $\lambda a \gamma a \rho o ́ s ~(ə) ~$

Go. tēkan (ē), taítōk (ō), Ic. taka (e)

OE. stōd ( $\bar{a}$ ), Go. staps (ə)
As the above examples show, gradation is by no means confined to verbal forms, but plays its part everywhere in word-formation. It is not limited even to root-syllables, but has an important function as a stem-formative agent, e.g. Gk. $\lambda$ ó oos (nom.) alternates with $\lambda$ óre (voc.), the stem-vowel showing gradation. The OE. declension of hana

$$
\begin{array}{ll}
\text { N. } & \text { hana } \\
\text { A.G.D. } & \text { hanan }
\end{array}
$$

conceals the original suffix-system, which is better preserved in Gothic :
N. hana
A. hanan
G. hanins
D. hanin
from Germanic *Xanōn Xanonm, Xanenes, Xaneni Similarly, the variations between Go. ansts (nom.), anstáis (gen.), and ansteis (n.pl.) are due to the IndoGermanic stem-gradation in *onstis (nom.), onstô̂s (gen.), and onstei-es (n.pl.).

The influence of analogy has removed many traces
of gradation from our Modern English verbs. The strong forms of burst, climb, starve, glide, creep, bow have disappeared in favour of weak forms. Occasionally, a gradation-form is preserved as an adjective, cf. forlorn, or as an archaism, cf. holpen.

A practical side to the whole subject becomes apparent when, as a result of investigation into older forms, we find ourselves enabled to equate words apparently unrelated.

Germanic gradation-classes

Class 6 better and best
Class 3 qualm and quell
Class 5 sit and set
Class 3 drench and drink
Class 5 wain and weigh
Class 1 rise and rear
Class 2 bread and brew
Class 2 suds and seethe

Class 4 bear and burden

Go. batiza (Germ. a)
OE. bōt (Germ. ō)
OE. cwealm (Germ. a) OE. cwellan (Germ. a)
OE. sittan (Germ e) OE. settan (Germ. a)
OE. drencan (Germ. a)
OE. drincan (Germ. e)
OE. wægn (Germ. a)
OE. wegan (Germ. e)
OE. risan (Germ. ì)
OE. r̄̄ran (Germ. ai)
OE. brēad (Germ. au)
OE. brēowan(Germ. eu)
OE. suden (Gérm. u)
OE. sēođan (Germ. eu)
OE. beran (Germ. e)
OE. byrđen (Germ. u)

In several of these forms the influence of i mutation is apparent, and it is necessary to restore the
unmutated forms in order to arrive at the gradationclass. Cwellan points to *owoljan, sittan is from *setjan, settan < *sxtjan, drencan < *drancjan, r̄̄æran < *rürjan.

Other forms show the influence of breaking, cwealm < ${ }^{*}$ cwalm, while isolative or combinative soundchange may occur in every case, e.g. OE. æ $<$ Germ. a, OE. in + consonant $<$ Germ. en + consonant, OE. ēa < Germ. au, OE. à < Germ. ai, OE. ēo < Germ. eu (cf. Chapter IV).

## CHAPTER VII

SEMANTICS AND ANALOGY

In our consideration of linguistic principles we have so far confined our attention to speech-sounds-to the origin of such sounds, to the classification of languages according to resemblances in their sound-systems, to the causes and effects of sound-change as illustrated in the phonology of different languages, and to particular phenomena, like Grimm's Law and Ablaut, in which consonantal and vocalic sounds are respectively concerned. But there is another and important side to language-study. Words serve as means of communication, and possess meaning. If we recall for a moment the processes by which language is acquired, we find that a prominent part is played by acoustic and motory sensations. We hear a word pronounced and experience an acoustic sensation; we try to imitate the pronunciation and experience a motory sensation of the movements made by our vocal organs. But in order that these sensations may be associated with a definite object it is necessary that we should either come into contact with the object itself, or obtain a description of it in terms of known objects. Associated, therefore, with the acoustic and motory
sensations of the sounds produced in naming, we may have visual sensations of the object named, combined with other sensations arising from touch, taste, smell, or hearing. Knowledge varies with individuals, and a name will suggest more to one than to another. The word father, for example, conveys a different meaning to a lawyer, a physiologist, or a child, though its use in ordinary language is identical with the child's. The content of such a term as the British Constitution could not be fully grasped in a lifetime of study. Names are, therefore, best regarded as symbols which serve to call up a set of more or less vague ideas, their particular meaning being always dependent upon the context in which they are used. The importance of these name-symbols for the progress of knowledge must be emphasised. Without them there could be no intellectual advance in the individual, nor any interchange of knowledge. The vagueness of the symbols, at first thought an element of weakness, is actually a source of strength.

No two persons regard a particular object in exactly the same way, for every idea is modified by the sumtotal of ideas existing in the mind, and this varies with individuals. Consequently, a particular name never suggests exactly the same thing to a number of persons, and in process of time the content of the name may have altered so considerably among a particular section of the community as to be no longer strictly applicable to the object first implied. Just as with sound-change, change of meaning depends for its acceptance upon the will of the community, as a
whole. Starting with the individual, it penetrates to others, and becomes in the end a feature of the whole speech of a particular community. The change is hastened by transmission from one generation to another. To quote Paul: "Words have a strong tendency to change when they pass into the mouths of a new generation." The process is naturally slow, slower, perhaps, than that of sound-change. Indeed, Bréal postulated many centuries for the elaboration of the infinitive out of the substantive, its original source.

The study of word-signification is the province of Semantics ( $\sigma \eta \mu a \nu \tau \iota \kappa \grave{\eta} \tau \dot{\varepsilon} \chi \nu \eta$ ), a science which bids fair to become the natural ally of Comparative Philology and Phonetics in the endeavour to solve the larger problems of linguistic history. Tentative efforts in the direction of a science of meaning were made about the middle of the 19th century by Archbishop Trench, and in 1886 appeared the English translation of Arsène Darmesteter's fascinating book, La vie des mots. The subject was also handled by Paul in his Principien in the philosophic spirit characteristic of his work. But it is to Michael Bréal that we owe, not only the first systematic treatise, but the special name of the science itself. Changes in meaning have been commonly classified under such heads as (1) Synecdoche, (2) Metonymy, (3) Metaphor, but Bréal is responsible for several new categories, some of which, apophonia, for example, are scarcely likely to survive.

Primitive language, if we may argue from conditions obtaining among savage tribes, was far richer
in concrete than in abstract terms. "The Mohicans," according to Professor Sayce, "have words for cutting various objects, but none to convey cutting simply; and the Society Islanders can talk of a dog's tail or a sheep's tail,...but not of tail itself." Abstract conceptions are possible only at a fairly advanced stage of development. Judging from the number of synonyms in Sanskrit and Old English, primitive language must have been rich in picturesque words. Thus, Sanskrit is said to possess at least thirty-seven different names for the sun, and twenty for the moon. In Old English, poetic diction was particularly rich in such synonyms, though we may suppose that these were differentiated to a greater degree than it is possible for us now to comprehend. The word "sea" might be represented by $s \bar{x}$, brim, wær, hærn, s顺trēamas, swän-rād, holma begang, herestr $\bar{x} t a, ~ h w r l e s ~ e ̄ đ e l, ~ \bar{y} \bar{đ} a ~ g e w e a l c, ~ f i s c e s ~ b æ \varpi \bar{đ}$, s $\bar{x}$-beorgas, hwælmere, gärsecg, holmweg, ärwela, and these do not exhaust the list ; varying expressions for "ship" were scip, bāt, bunden-wudu, sund-wudu, fämigheals, wunden-stefna, w $\bar{x} g$-flota, s $\bar{x}$-ganga, flota, and cēol ; while a " warrior" might be represented by gū̃ $\bar{d}$ rinc, secg, gū̃̄-fremmend, hæleđ̄, and heađ̃o-dēor. But, in spite of the multitude of terms for a limited number of common objects, it must not be supposed that primitive language was richer than modern in soundsymbols. The history of language suggests that Nature has been economical in her distribution of these, and the process by which material for the expression of new ideas is secured has been throughout a transforming and refurbishing of older material. Under these
processes the actual number of words has, however, increased enormously.

Despite assertions to the contrary, root-creation is possible at a highly developed stage of civilisation, though limited to definite speech-areas. Every nation is capable, for example, of onomatopcic formations, of symbolical representation of natural sounds. The English cuckoo corresponds to Ger. Kuckuk, L. cucülus, Gk. ко́ккй $\xi, \mathrm{F}$. coucou, and borrowing need not be postulated. In English there are many modern creations of this type, such as chink, plash, hiss, hum, simmer, chit-chat, tick-tack; in French ronfler, miauler, chuchoter, toutouer, and so on. Onomatopœia thus plays a large rôle in word-creation, though we may not claim too much for it as an original source of supply in language. Again, root-creation is possible by the application of a kind of phonetic symbolism, a narrow vowel being associated with slenderness, a labial with inflatedness, a final explosive with abruptness, and so on. ${ }^{1}$ Dr. Henry Bradley includes in this class of symbolic words formations like bunch, dab, fidget, flabbergast, hug, jog, thwack, flip, wobble. Nursery language has given us lall and lallation, and the Germans apply the term Lall-wort to all words of this class. One root, originating in the nursery, has obtained wide currency in the Indo-Germanic family as the name for "father," Skt. atta, L. atta, Gk. ä á $\tau a$, Go. atta, OHG. atto, side by side with the associated forms L. tata, Głk. rára, Russ. tata, W. tad. A remarkable example of root-creation in adult speech is

[^3]afforded by the word gas, invented by the Dutch chemist, Van Helmont (1577-1644), though even here the suggestion was due to the Greek $\chi$ áos, the initial continuant of which was imitated in the Dutch pronunciation. Humorists occasionally invent words which gain a measure of acceptance, and Lewis Carroll has jabber-wock to his credit. Apart, however, from onomatopoic, to which we may add interjectional, formations, language does not create any considerable quantity of new material. It avails itself of what already exists.

The chief processes by which older material has been adapted for new semantic purposes must now be illustrated. In naming an object, a particular characteristic is selected for special prominence. It matters little whether this is essential or not-provided it strikes the imagination it suffices for naming purposes. No particular zoological insight lies at the back of the name for, which means simply "the tailed one." The F. soldat is so named from the fact that he receives pay (solde) ; the name would be equally applicable to the majority of men. The accident that in law-reports the phrase culpable : prest d'averver notre bille was abbreviated to cul. prest accounts for culprit. ${ }^{1}$ Semantic development is always associated with forgetfulness of the original meaning. In Latin, the root teg-meant " to cover," and tectum "anything that was covered." In the early stages of the language, the exact application of the term could be discovered only from the context. Limitation came by usage, until the word came to signify the covered thing most

[^4]often referred to, a house or roof of a house, with limitation of the general idea in the latter case. The etymological signification was by this time forgotten and confusion ceased. Other covered things originally indicated by tectum requiring to be re-named, recourse was had to the old verbal root, whence arose the new formations, tectorium, teges, toga, each of which in its turn followed the course of its predecessor and became restricted to special meanings, "plaster," " mat," and " upper garment."

The content of every word is modified, to some extent, by its environment, and it is to the particular environment that we must attribute the rise of specialised meanings. The English word "box" is an example in point. Its primary meaning was "a small receptacle for valuables" (Gk. $\pi \hat{u} \xi_{\iota c}$ ), but under special circumstances it has come to mean "a driver's seat," "a compartment in a theatre," "a pew in a church," "a stall for a horse," " a shelter for watchmen," "a small country house," etc. The primary meaning, it should be observed, lives alongside of the secondary, and the permanence of the latter depends upon the disappearance of the original etymological value. Sometimes this original value is so prominent before the consciousness that the derived senses can be employed only under very limited conditions. The phrase " all hands on deck" is justifiable in nautical language, but if we say " the hands spoke out against the mate" we destroy the image, since the word hands inevitably suggests the idea of work. Similarly, "a fleet of ten sail crossed the Atlantic" is admissible,
but not " a fleet of ten sail lay in the dock." The examples just given come under the head of Synecdoche, further illustrated by the use of proper nouns as representatives of a class. In Gray's stanza
> "Some village Hampden, that with dauntless breast The little tyrant of his fields withstood; Some mute inglorious Milton here may rest, Some Cromwell guiltless of his country's blood,"

the proper nouns stand in turn for "patriot," " poet," and "statesman," but have the special characteristic of adding colour to the original conceptions. In the same category comes the use of literary names as types-an Abigail for a "waiting-woman," a Hercules for a "man of strength," a Nimrod for a "hunter." Under Metonymy are embraced such names as characterise an object from a particular aspect, or special circumstance, connected with it, as, for example, "The crown of France was triumphant in the 17th century," paralleled by the French boire son verre, la maison est en émoi, etc. Most of these are purely occasional usages, and it is more instructive to consider those cases where a personal name has become permanently attached to an associated object, as in the following examples: pinchbeck, simony, mackintosh, brougham, victoria, shrapnel, phaton, orrery, derrich, sandwich, spencer, dahlia, fuchsia, olm, volt, wistaria, ampère, mesmerism, all derived from personal names, while from names of places we have bedlam, canter, currant, copper, pheasant, jet, milliner, pistol, italics, jersey, fez, polonaise, landau, damask, cashmere, japan, china, gin, cambric, sherry, champagne, etc.

In his Life of Words Darmesteter arranged his subject under three heads: (1) how new meanings arise; (2) the society of words; (3) how words die. The treatment was somewhat vitiated by the suggestion that words exist apart from the speaker, for the spoken word is, in no sense, an independent entity like a plant. It does not exist apart from the individual, and to regard it as a living thing is to introduce a fallacy. But the work is rich in illustrations and generalisations on the development of word-meaning.

It is one of the conditions of name-transference that a number of objects should possess some characteristic in common. The common feature of " roundness," " globularity," has led to the application of the name ball to (1) a planetary body, (2) a ball used in sport, (3) a ball for fire-arms. Further, a second group may be welded together by a different characteristic, and linked up to group I by the accidental occurrence of the first characteristic in some particular member of the group. This may lead to the transference of the name from group I to group II. A good illustration is provided by the word base. Primarily, a base is the lowest or supporting part ; hence the name is applied to (1) the bottom of an object, (2) a fundamental principle, and, with various specialised meanings, to (3) the bottom of an architectural column, (4) the lower part of an heraldic shield. The main element in a compound may, however, be regarded as its fundamental part, consequently the name "base" is applied to a second group consisting of (1) an ingredient used in dyeing, (2) that
part of a chemical compound which enters into combination with an acid to form a salt, (3) the form of a word to which suffixes are attached. A third group, formed upon the idea that the starting-point of an action is its base, applies the name to (1) the place from which a military operation proceeds, (2) a number from which a system of enumeration proceeds. (Cf. NED.) The whole series is welded together by what Darmesteter called a process of irradiation and concatenation, or, as Bréal put it more briefly, polysemia.

An interesting side of semantic study is concerned with the disappearance of words-words not found, or marked obsolete, in the dictionaries. The causes are partly historical, partly phonetic. Institutions, arms, coins, even ideas, may disappear, together with their names. The OE. words byrne, fyrl, đegn, hūs-cärl, to mention only a few, have disappeared along with the things they represented. But in many cases the words survive with new meanings. We should get an altogether false idea of pre-conquest conditions were we to attach modern meanings to the OE. representatives of knight, knave, marshal, steward, brand, worm, alderman, yard, yelp, rhyme, etc. Some have risen in rank, e.g. Fnight, while others like linave illustrate the pejorative tendency common to all languages. All agree in showing change of meaning, which can be illustrated everywhere in English, whether the words be of native, or foreign, origin. A monster meant originally merely "something shown," a pirate (Gk. $\pi \varepsilon \iota \rho a r i ́), "$ one who makes an attack." Silly meant " innocent," and later " sickly," giddy " possessed by a
god," a virtuoso "a virtuous man," treacle " a sovereign remedy," rigmarole "a signed deed," libel "a brief piece of writing," groom "boy," assassin " an eater of hashish," arrant linave "a wandering boy," egregious "excellent," c.f. "When he wanted to draw some one splendid and egregious, it was Clive he took for a model" (Thackeray). The history of these words should make us cautious in drawing conclusions as to original Indo-Germanic conditions from the vocabularies of the various dialects. Gk. фíyos is cognate with L. fägus, OE. bōc, and Ger. Buche, but the fact that the Greek word means "oak" must not be allowed to overbalance the evidence of the other languages that the original meaning was "beech." Nor do discrepancies in the meanings of cognate words prove that agriculture was unknown to the primitive Indo-Germanic stock, since the Eastern branch may have lost something of the art, and have afterwards transferred the names. On the other hand, the existence of walled cities in primitive times is not proved by Skt. puri and Gk. $\pi$ ódis.

A number of words have disappeared altogether from phonetic causes. The double forms of Old French, ber (nom.), baron (acc.), from L. báron and barónem, have been reduced to one by the disappearance of the weaker form. The classical Latin words os, via, dies, edere were replaced in the dialect of the soldiery by the fuller forms bucca, caminnus, diurnum, manducāre, whence modern F. bouche, chemin, jour, manger. In other cases, the substitution seems to have been due to the desire for more picturesque words, caballicäre ousting
equitāre, cattum felis, spatham gladius, testa caput, muttum verbum, grandem magnus, and so on.

Analogy is the great unifying process in language and the only force which can be proved to run counter to phonetic change, the invariableness of which is otherwise established. The mind classifies ideas into groups, and only by conscious interference can headlong processes of uniformising be checked: hide, hid, suggests slide, slid, etc. All this tends in the direction of homogeneity of inflections, derivations, and constructions. The Latin verbal forms of the 1st conjugation, present indicative, are not represented phonetically in Modern French. The true correspondence would be:

| Latin. | French. |
| :--- | :--- |
| ámo | aime |
| ámas | aimes |
| ámat | aime |
| amámus | amons |
| amátis | amez |
| ámant | aiment |

but analogy has introduced the aim- type throughout, different forms with the same function being repugnant.

The Gothic feminine ō- noun

| N. A. giba | gibōs |  |
| :--- | :--- | :--- |
| G. | gibōs | gibō |
| D. | gibái | gibōm |

corresponds more closely to the original Germanic
declension than the OE. noun, which has assimilated the gen. and dat. sing.:

| N. | giefu | giefa |
| :--- | :--- | :--- |
| A. | giefe | giefa |
| G. | giefe | giefa |
| D. | giefe | giefum |

Just as L. honös > honor, under the influence of the oblique cases, so OE. baru > bearu, from the same cause. Again, similarity of function may influence form. L. turm $>$ tien under the influence of F. mien < L. meum ; OF. femelle $>$ E. female under the influence of male. The history of E. neither has been affected by that of either, the history of little by that of mickle. Endings are often generalised, that of pleasure ( F. plaisir) being affected by measure ( F . mesure): while tardy (F. tardif), hasty (F. hastif) show the influence of guilty, sausage (F. saucisson) of courage ( F . courage) and visage ( F. visage).

Foll. etymology, a kind of "false" analogy, has resulted in the malformation of innumerable words. F. cotellete $>$ E. cutlet (by analogy with cut), OF. berfroit $>$ E. belfrey (cf.bell), F.écrevisse $>$ E. cray-fish (cf. fish), OHG. sinvluot > Ger. Sündflut (cf. Sünd), MHG. moltwerf $>$ Ger. Maulwurf (cf. Maul), OE. shame-fast > Mod.E. shame-faced (cf. face). False association is similarly responsible for the spelling of doubt (F. douter), debt (F. dette), scissors, (F. cisoives), scent ( F . sentir).

## CHAPTER VIII

## EVOLUTION IN LANGUAGE

In his well-known work on progress in language Dr. Jespersen has laid down the following dictum: "The evolution of language shows a progressive tendency from inseparable irregular conglomerations to freely and regularly combinable short elements." Whether this theory can be established for the whole history of language is a moot point; it is, at all events, true of the history of the Indo-Germanic family in its separate branches. In Danish and English, the advance has proceeded particularly far, and from the latter Dr. Jespersen adduces a mass of illustrative material.

In the first enthusiasm of philological inquiry it was natural that investigators should be tempted to set an undue value upon any material that bore the marks of age. This was exactly what they required in their efforts to get back to the remotest periods in the history of language ; it alone supplied the key to the Ursprache. To an investigator like Schleicher, obsessed by Hegelian doctrines, there was additional fascination in the thought that such material belonged to the very dawn of speech-history. Hence his comparison
of modern words with " a statue that has been rolling for a long time in the bed of a river till its beautiful limbs have been worn off" (cf. Progress in Language, p. 11). Hence, Max Müller's contrasted picture of the older stage of "language, which in itself carries us back far beyond the cuneiform literature of Assyria and Babylonia and the hieroglyphic documents of Egypt; which connects ourselves, through an unbroken chain of speech, with the very ancestors of our race, and still draws its life from the first utterances of the human mind." It must be confessed that something of this first fine rapture has died out from linguistic dissertations. We are unable to advance far beyond the historical periods of language, and that of origins is still very remote. Nor has the structure of such a language as Gothic proved as perfect as Schleicher imagined, invaluable though its aid may be in any attempt at the reconstruction of Germanic speech. Modern philologists have come to realise the perennial attraction of all forms of living speech and the aid that these afford towards the solution of linguistic problems.

There is, however, a practical way of regarding languages with reference to their serviceableness as means of communication. From this point of view, the modern dialects have it all their own way-the cumbrous elements of archaic speech, "beautiful limbs" though they may be from an artistic standpoint, have been worn away in the gradual process of fitting language for its business in the world. The phraseology is Schleicher's, though there can, of course,
be no question of actual " wearing away" in language -the process of development being carried out slowly under the action of phonetic law and analogy. Still the illustration has its picturesque side. Turning for a moment to one of these linguistic figures, the present indicative of the verb to bear in Gothic is made up of the following forms: baira, bairis, bairip, bairōs, bairats, bairam, bairip, bairand. In Old English many of the limbs have disappeared: OE. bere, birest, birep, berab, while Modern English has little left beyond Schleicher's " bare cylinder." Again, the Gothic declension of the word son showed the following forms: sunus, sunu, sunaus, sunau, sunjus, sumuns, suniue, sunum, eight distinct cases as against the three of Old English : sunu, suna, sunum, and the two of Modern English: son, sons. It is obvious that from the point of view of simplicity and of the practical linguist, Modern English is greatly in advance of Gothic. Two questions force themselves upon us: (1) How did this simplicity arise? (2) How has English managed to dispense with the aid of the inflections?

Old English possessed a system of declensions and conjugations as complicated as that of modern German. The masculine noun, for instance, might be declined in six or more different ways, like stān, wine, sunu, frder, föt, guma, etc. The adjective was declined both strong and weak, so that OE. gōd monn corresponded to Ger. guter Mann, and OE. se göda monn to Ger. der gute Mann. The verb had strong and weak types, the latter of which showed three main subdivisions, and the number of personal forms was larger than in Modern

English. From the point of view of Germanic, the OE. grammatical system was, however, merely fragmentary, like the Germanic itself contrasted with that of IndoGermanic. Noteworthy, however, in this latter instance, was the special Germanic development of a weak verbal and weak adjectival system.

The OE. nominal system was, from a practical point of view, a source of difficulty to the learner. The nominative plural masculine was indicated in stān by the ending as, in wine by $e$, in sunu by $a$, in föt by vowel mutation, in guma by the addition of $n$. Now, while it must be insisted that these variations were due to no fortuitous causes, that they were each, in fact, a valuable heritage from the past, it is clear that one suffix might, from the practical point of view, have served equally well as the sign of the nom. plur. masc. There is more reason to complain when we discover that this wealth of inflection was actually a source of ambiguity. Final -e represented not only the nom. plur. masc. of i-stems, but also the dative sing. of strong masc., fem., and neut. nouns, the gen. sing. fem. of $\overline{0}$-stems, and the nom. sing. of weak feminines and neuters. Final -a indicated, at one and the same time, the gen plur. of all genders, the gen. sing. fem., the dat. sing. masc., fem. and neut., and the nom. and acc. plur. of u-nouns, the nom. and acc. plur. of strong fem. nouns, and the nom. sing. of weak masc. nouns. That the awkwardness of this system was felt already before the Conquest is evident from the fact that the e-plurals were gradually assimilated to the -as type, and that fem. nouns like $d \bar{x} d$ acquired an acc.
sing. in -e in imitation of the stōw-class. Similarly, in the strong adjective the nom. plur. forms tile, tila, tilu were reduced to one type tile, and the endings of the indicative, in the verb, imposed upon the subjunctive.
cf. ongann pā winas manian (Maldon, 228).
onginnab nū ymb pā fyrde pencean (Genesis B, 163).
ealle ping sind purh hine geworhte (※lfric). $\overline{\text { ®r rest we bebēodap pætte Godes bēowas hiora }}$ ryht-regol on ryht healdon (OE. Laws).
After the Conquest the tendencies towards simplification, already apparent in Old English, were greatly accelerated by the universal reduction of final vowels to -e. The loss of the distinctive inflections reduced the older system to a state of chaos, and new categories required to be formed. Final -e served for a time as the distinctive ending of the fem. sing. of nouns, with -en as its corresponding plural, the choice of -e being dictated by its frequency in the oblique cases of both strong and weak forms after the disappearance of OE. final -n.

Strong Feminine. Weak Fehinine.

| Sing. | Plur. | Sing. | Plur. <br> soule |
| :---: | :---: | :---: | :---: |
| soulen | herte | herten |  |

Final -e was imposed by analogy on a number of masc. and neut. nouns, which fell together with the feminines and assumed plurals in -en; dale, dalen; devle, devlen.

On the other hand, the typical masculine and
neuter nouns showed two forms in the sing. and one in the plur.

## Masculine.

| Sing. | Plur. | Sing. | Plur. |
| :--- | :--- | :--- | :--- |
| N. king | kinges | ship | shipes |
| G. kinges |  | shipes |  |

Neuter.
Sing. Plur.
ship shipes
shipes

To this declension the feminines were gradually assimilated along with the weak nouns (which embraced a number of strong masculines and neuters), the rate of progress varying with the particular dialect, though Southern remained the most conservative.

A number of forms escaped the levelling tendency, and survived as linguistic fossils. gèr retained its uninflected neuter plural along with pound, sheep, etc., survivals of which still occur in phrases like "two year old," "five pound ten," etc. The uninflected masculine plural in Mod. English "twelve foot" is a survival of the OE. gen. plur. in -a (ME. -e), cf. twel fote, Havelok, 1054. The old genitive sing. fem. in -e was also preserved, for a time, in expressions like rode-tree, sonne-beem, his ladye-grace; cf. Mod.E. lady-day, as opposed to lord's-day. The net result of these changes is that, with a few exceptions (including plurals in -n and mutated plurals), Standard Modern English has dispensed with the whole of the OE. inflectional system, retaining only -s as a sign of plurality and of the possessive case.

In the strong verbs there were considerable alterations caused by phonetic changes in root and flectional
syllables, as well as by analogy between the tenses. The correspondences between the different gradation classes of Old, Middle, and Modern English are shown in the following tables (Chaucer being taken as typical of Middle English) : -

| I. OE. | rìdan | rād | ridon | riden |
| :---: | :---: | :---: | :---: | :---: |
| ME. | rīde | rộd | riden | riden |
| Mod.E. | ride | rode | rode | ridden |
| II. OE. | cēosan | cêas | curon | coren |
| ME. | chēse | chęs | chọ̃sen | chộsen |
| Mod.E. | choose | chose | chose | chosen |
| III. OE. | swimman | swam | swummon | vum |
| ME. | swimme | swam | swommen | wom |
| Mod.E. | swim | swam | swam | swum |
| IV. OE. | beran | bær | bēron | boren |
| ME. | bęre | bar | bēren | bọ̀ren |
| Mod.E. | bear | bore | bore | borne |
| V. OE. | sittan | sxt | sāton | seten |
| ME. | sitte | sat | sēten | sęten |
| Mod.E. | sit | sat | sat | sat |
| VI. OE. | sceapan | sceōp | sceōpon | sceapen |
| ME. | shäpe | shōp | shōpen | shāpen |
| Mod.E. | shape | shaped | shaped | shaped |

Since the Conquest, the influence of analogy has made itself felt more and more, with the result that, like shape, many of the original strong verbs have passed over into the weak class.

If we inquire how English has been able to dispense with the aid of the inflectional system, we find that this has become possible, partly by the growth of new
grammatical material, partly by the adoption of a fixed word-order. But we must first note the disappearance of grammatical gender, traces of which are apparent as early as Beowulf, cf. nū sēo hand ligeb, sē pe ēow wel-hwylcra wilna dohte, 1343 . In OE. cild (child) was neuter, hand feminine, gär (spear) masculine, a distinction as irrational as that of Modern German, where head is masculine, hand feminine, and heart neuter. In Modern English, gender has come to correspond closely with sex, and in consequence it has been necessary to find a new possessive pronoun corresponding to sexless objects. The OE. possessive pronoun of the 3 rd person was identical for both the masculine and neuter, his meaning both " of him" and " of it." There was no distinctive form for the neuter, in other words no form its. Theneed for such was every where felt, though its appearance was long delayed. Down to the 17th century his was used for the neuter as in Old English, though expressions like " of it," " thereof " had appeared as substitutes already in the ME. period. Shakespeare employed the form it two or three times with possessive function, e.g. "It's had it head bit off " (Lear), but the first literary appearance of its occurs in Florio in 1598, " for its owne sake." The new form did not gain immediate acceptance, and is not found in the Bible of 1611, nor in those works of Shakespeare which appeared during his lifetime.

Among the fragments of new material, which grew up as substitutes for the older inflections, one of the most important was the preposition of. Originally, of (an unaccented form of off) denoted separation,
though the genitive function was latent in such expressions as OE. an monn of p̄xre byrig, "a man from the town." Its rapid development was, no doubt, assisted by the parallel use of de in Anglo-French, e.g. les yeux du chef lui fait crever, though the general tendency in English was, everywhere, making towards an analytical type of language.

The auxiliary verbs, shall, will, do, am, etc. are of the first importance among the new analytical elements, though most of them served quite different functions in old English. OE. ic sceal gän meant "I ought to go," the future being expressed simply by the present. But already in Gothic the periphrastic future, formed by means of the verbs skulan, haban, duginnan, munan in combination with the infinitive, had begun to make its appearance, e.g. saei slecl stöjan qiwans jah dáupans (Tim. I. iv. 1), batei táuıja jah táujan haba (Cor. II. xi. 12). The former construction has resulted in the Modern English future, the latter in the Romance, the direct source in this case being a late Latin employment of habeo with the infinitive.

In primitive languages, relationship between the parts of the sentence was indicated by derivative prefixes, and word-order was comparatively free. It is obvious that, in an inflected language like Latin, no ambiguity could arise as to the meaning of such a sentence as Caesarem Brutus interfecit, even if the word-order were changed. The same freedom was possible in Old English, cf. the position of the accusatives in bas stänhleopu stormas cnyssap... hriussan bindep
wintres wöma (Seafarer, 101-3). But in the new uninflected languages a definite word-order was necessary to prevent ambiguity, so that in the sentence "Thus the son the fervent sire addressed " the words must be assumed to represent the normal succession of subject, predicate, and object. An interchange of the positions of the nouns would involve a change of both subject and object. Even Latin may have adopted this system to some extent, otherwise a sentence like Fratres sorores vident would have been tinged with the oracular vagueness of the famous Aio te Romanos vincere posse.

During its evolution syntax has advanced from a condition of parataxis to one of hypotaxis. Complete parataxis, or isolation of the parts of a sentence, is scarcely found, but the process by which the closer welding of the parts grew up can be detected. Out of the adverb, or some such part of speech, was evolved the conjunction, out of the demonstrative the relative, and so on. At the highest stage of the welding-process the links between the sentence-parts were clearly apparent, one particle echoing another, $b \bar{a}$ $b \bar{a}, ~ p \bar{x} r$ $j \bar{e} r, s w \bar{a} s w a \bar{a}, ~ e t c .$,
cf. brægd pā beadwe heard $p \bar{a}$ hē gebolgen wæs (Bēowulf).
sōna bert onfunde pret pēr gumena sum ælwihta eard ufan cunnode (Bēowulf).

Modern English has attained to a larger measure of syntactic freedom by the omission of the anticipatory adverb, or pronoun, or even of the relative. A pregnant
word, like who, may stand for both relative and antecedent in " who steals my purse, steals trash," which, in some ways, parallels the Old English Hèr on pis


Everything, of course, cannot be set down as gain in the present condition of a language like English. There is ambiguity enough even for Englishmen, extending to both literary products and everyday speech. The passage in L'Allegro beginning

> "Then to come in spite of sorrow And at my window bid good-morrow"
illustrates this obscurity. Again, there are the syntactical difficulties involved in sentences like "Nobody prevents you, do they?", "Everyone in the house were in their beds," "The young and grayhaired gentleman," "I am happy to hear it was his horse and not himself who fell in the combat." But the logic of it all is, on the whole, clear enough, though the classificator may follow with halting and often unwilling steps.

## CHAPTER IX

## LINGUISTIC CONTACT

When two nations speaking different languages are brought into touch with one another some degree of linguistic contact usually follows. The forces in operation are identical with those which determine the relation between the speech of an individual and that of the community to which he belongs. No speaker is without influence on his neighbours, or unaffected by them. Consequently, the tendency to split up into communities having characteristics in common is a constantly recurring phenomenon in the history of language. Social, or geographical, causes lie at the root of this tendency, and, as we have seen, the home, the village, the town, and the nation have come to represent linguistic groups of varying extent. But two neighbouring dialects, or languages, cannot be kept in a condition of absolute isolation. On the border-line there will be inter-communication with a consequent modification of both forms of speech. Innovations will tend to spread inwards on either side, producing more or less permanent effect throughout the whole of the opposed speech-areas. Thus, certain characteristics distinguish the Midland from the

Southern dialect during the Middle English period, but forms peculiar to the one frequently penetrate even into the literary products of the other.

Already in primitive Indo-Germanic some such contact between dialects must be postulated in order to explain close resemblances between the languages descended from them. The tendency, for example, in both Balto-Slavonic and Aryan to modify the original palatal explosives into continuants is explained by Schmidt's theory as to the original grouping of the dialects, from which these languages have sprung. The tendency to develop Germanic un similarly in East and North, as against West, Germanic points to a period of contact for the two former; though there are other facts which suggest a separate period of contact for North and West Germanic. These examples illustrate direct linguistic contact, but the contact may be indirect, with far-reaching consequences. When a language imports a number of foreign literary words into its vocabulary the contact is indirect, but, as we realise from the debt of English to the classical languages, this may be of no small significance. The influence of a dead language may affect even the syntax of a living tongue. The form of the Gothic sentence, as we know it in Ulphilas, was systematically modelled on the Greek, and most of the European languages have passed through a formative period, during which their syntax may be said to have stood in statu pupillari to that of the classics.

To the philologist direct linguistic contact suggests
more interesting problems than indirect, though most languages have been affected in both ways. While we borrow words indirectly'from France, there will always be a section of the English-speaking people who have come into direct contact with spoken French. This section will, for a time, employ a number of French words with an approximately correct pronunciation, but the mass of the people will be unaffected, and such words as they adopt will emanate mainly from literary sources and undergo a wholesale modification of their original sounds. The real significance of direct linguistic contact must, consequently, be sought elsewhere, in those instances where a whole community is transferred to an area occupied by another, speaking a different language. Examples of such transference are not wanting in history, and philologists have postulated this as the cause of certain linguistic peculiarities which made their appearance during the pre-historic period. Thus, Schmidt explained the fact that our decimal system is crossed by a duo-decimal by assuming early contact, more or less intimate, with the Babylonians. His explanation is open to criticism since the duo-decimal system has left no trace in the most Eastern branch of the IndoGermanic family, the Aryan, and the phenomenon can be accounted for in other ways. But the illustration is to the point. Similarly, Hirt explained the Germanic consonant-shift by assuming race-mixture. Only as they kept themselves in comparatively seclusive areas were the various sections of the IndoGermanic peoples able to retain their linguistic
characteristics. Startling modifications, of greater or less extent, followed as soon as they mingled with the foreign tribes, with whom their wanderings brought them into contact. The conquest of a tribe by another, whose language is entirely foreign to them, affords the most complete example of direct linguistic contact. In such a case, either the conquered, or the conqueror, must gradually surrender its dialect. The former was the case with the Gauls when they submitted to the Frankish invasion, the latter with the Normans when they surrendered their dialect in favour of the conquered English. From the Gauls the French seem, however, to have derived those traces of a vicesimal system, which still figure among their numerals-soixante-dix, quatre-vingts, quinzevingts (the name of a hospital), cf. the Welsh formations deg-a-thrugain, pedwar-ugain-as well as a number of words, geographical, agricultural, military, etc., like chemin, combe, glaive, palefrein.

The debt of the surviving language to that which has disappeared will depend upon the degree of culture represented by the latter. The fact that the Celts were reduced to a state of servitude by their conquerors accounts for the slight traces they have left on either French, or English. When, on the other hand, two nations like the English and the Norman-French are brought into direct contact, considerable debt on the part of the surviving language may be anticipated. For a time, both peoples will probably become bilingual, until, after an interval, the language of the more numerous, or more cultured, section wins the
day, though not without undergoing considerable modification. Thus, the French had a mass of names for ideas and objects unrepresented in English. These were retained with a consequent enlargement of the English vocabulary. Such borrowing of names represents the simplest aspect of linguistic contact, and may be illustrated everywhere in language. We import tea from China, and with it the foreign word. Similarly with abstract terms, like verve or esprit; the qualities indicated, being less prominent in the English character, were unnamed before the adoption of the French terms. A more far-reaching effect of contact may be seen where the native syntax undergoes modification. The Irish I am after going is a Celtic idiom imported into Northern English, the Shakespearean after his ransom paid is French in origin, the Alsatian French pas si beaucoup owes its existence to German, while the Slavo-German der Knecht, was ich mit ihm gefahren bin employs its relative in the Slavonic manner.

The history of English affords additional illustration of the influence, by direct and indirect contact, of one language upon another. The English conquest of Britain, which began at the end of the 4th century, transferred a number of foreign tribes on to Celtic soil. As far as we are able to conjecture, the Celts were either reduced to a state of servitude, or driven into the extremities of the island; still the number who remained in the former situation must, on the evidence of Old English literature, have been considerable. Celtic thus came to stand for a lower stage
of culture, and exerted little influence on the dialect of the conquerors. But Sarrazin found traces of Celtic idiom in Old English epic, and there are similar traces in the Modern Anglo-Irish dialect. Old English contained only about a dozen words which are certainly known to be Celtic, but the number of borrowings has increased in recent times. Unfortunately, it is difficult to determine, in the case of two closely similar words, in which direction the borrowing has taken place. The net result of the English borrowings, may, however, be assumed to be: Some dozen words, like $d r \cdot \bar{y}$, brocc, etc., imported during the Old English period, together with a number of place-name elements e.g. Avon, a river, Aber, a river-mouth (cf. Berwick), Ben, a mountain (cf. Penzance), Llan, an enclosure (cf. Lampeter), Caer, a castle (cf. Carlisle), and names of rivers like the Thames, the Ouse, the Don. The importations have increased in modern times. Purely Welsh words are coracle (W. corwgl), cromlech (W. crom and llech), flannel (W. gwlanen), flummer'y (W. llymry), licck (W. cicio), metheglin (W. meddyglin). The words flummery and flannel illustrate the way in which language tends to substitute more for less familiar sounds. Writing in 1634, Sir T. Herbert attempted a different substitution for the Welsh ll: "The poor eat rice sometimes, but most commonly roots and fraize like to our thlummery." Of Irish origin are banshee, brogue, galore, usquebaugh, etc.; of Gaelic, cairn, clan, claymore, coronach, glen, kail, plaid, whissiy. As regards the borrowings in the last two divisions, Professor Skeat remarked: "English has borrowed
more freely from Gaelic than from Irish, and the borrowing began at an earlier time ; this is the natural consequence of the respective geographical positions and political relations of Scotland and Ireland to England. We should also bear in mind that clan, lail, and plaid are ultimately of Latin origin from planta, caulis, and pellis."

The contact between English and Latin was of a very different character. The Romans represented a higher stage of civilization than the Germanic tribes, and already in the continental period Latin words, representing articles of luxury, or objects associated with a more advanced culture, were adopted by the Germanic people, as a whole. These borrowings can be traced by their occurrence in several cognate dialects, where they have been subjected to the laws of sound-change prevalent in each: kettle (OE. cetel, Go. hatils), cheese (OE. ciese, OHG. chāsi), street (OE. strǣt, OHG. sträzza), wine (OE. win, OHG. win). In England, Latin was for some time a living form of speech, at any rate in the towns. This neoLatin showed a preference for voiced, as against voiceless, sounds, in inter-vocalic position, and these were retained in the English borrowings. p became $f(=v)$ in präfost $<\mathrm{L}$. praepositus, $\mathrm{t}>\mathrm{d}$ in sìde $<\mathrm{L}$. sēta, cumpreder $<\mathrm{L}$. compater, $\mathrm{c}>\mathrm{g}$ in cugele $<\mathrm{L}$. *cuculla, sigle $<\mathrm{L}$. secale. These words were pre-Christian, but, with the advent of St. Augustine in 597 A.D., there was an influx of new words, not only church-terms describing parts of the service and instruments appertaining to such service, but miscellaneous terms
connected with Roman culture and civilization. The English also began to study works in Latin, indirect being added to direct contact. Altogether, about 400 Latin words had penetrated in various ways into English by the middle of the 11th century, cf. ampelle $<$ L. ampulla, brēfan < L. brevis, candel < L. candèla, cimbal $<\mathrm{L}$. cymbalum, dïacon $<\mathrm{L}$. diaconus, draca $<\mathrm{L}$. dracō, font $<\mathrm{L}$. fontem, nunne $<\mathrm{L}$. nonna, pise $<\mathrm{L}$. pīsum, sücerll < L. sacerdos.

Latin words, however, formed but a small part of the OE. vocabulary, and it is interesting to note how native writers adapted home-spun material for the expression of foreign ideas. Heathen words like OE. wig-bed or hearh served the same purpose as the Latin altar or tempel, and, if a novel idea needed representation, native compounds were created with astonishing facility. It is interesting to speculate how far English would have advanced on parallel lines with German had not the introduction of foreign elements changed the natural course of our language-development. The following list of religious, ecclesiastical, and ethical terms will illustrate the native formations:

| nniscnes, humanity | d $\bar{æ} d$-bōt, repentance |
| :---: | :---: |
| ūpāstigennes, ascension | smēagung, contemplation |
| gesomnung, congregation | $\overline{\text { ærist, resurrection }}$ |
| ūt-gong, exodus | pingung, intercession |
| mān-swara, perjurer | gebed-hūs, oratory |
| big-spell, parable | onscunigendlic, detestabl |

In the middle of the 9th century, Scandinavian wikings began to settle on the English coasts. Their
language is known to us, since, as a result of the colonisation of Iceland by the Northmen c. 874, Old Scandian has been fairly well preserved, as Icelandic, down to the present day. The Northmen were divided into two main groups, the Danes and the Norwegians, the former of whom attacked the eastern coast of Great Britain, while the latter fell upon Ireland and $N$. Wales. The influence of the Northmen is apparent in the dialects of the Scotch Lowlands, the North of England, Lincolnshire, Norfolk, Suffolk, Essex, and Cambridge. The words contributed to Old English by the Scandinavians illustrate one of the dominant characteristics of this people-their delight in legal procedure. The following OE. legal terms are of Norse origin : hüsting, a council, ūt-laga, an outlaw, w्̄xpentac, a wapentake, hand-fresten, a ratification. Side by side with these were various nautical terms and titles: cnearr, a ship, lip, a fleet, hüscarl, housecarl. The verb ceallian (ON. lialla) was introduced into the poem known as the Battle of Maldon (10th cent.), and ousted the native word clipian.

The interaction between English and Northmen was not complete until after the Conquest, when a real fusion took place. Then, for the first time, we find Scandinavian working its full effect upon English literature-particularly in the North- and WestMidland dialects. The close resemblance between cognate words in English and Norse makes it sometimes difficult to decide whether a Middle English word represents an OE., or a Norse, type. Unless, however, the word possess some characteristically Norse feature,
it is not to be regarded as a loan-word : should its distribution extend over both the Norse and Low German areas, this is a further argument against borrowing. The absence of the OE. prototype proves little. Nor can we, on the ground of meaning, unhesitatingly class as Scandinavian such words as dream (ON. draumr), dwell (ON. dvelja), linife (ON. linifr), meek (ON. $m j i k i v$, though dwell, Finife, and meek, owing to their late occurrence in O.E , are probably borrowings. On the other hand, the form of the word sister (OE. sweostor, ON. syster) is a clear proof of Scandinavian origin. An interesting aspect of linguistic influence appears in the attempts to translate Scandinavian words into English phonetic equivalents. In this way, ON. höfuđ̄s-mä̈dr became OE. hēafdes-mann. The Scandinavian borrowings in English may be classified as follows :-
(1) Some verbs in -en, -el, e.g. batten, happen, dangle, dazzle, in which the endings have inchoative or frequentative functions.
(2) Place-names in -by, -fell, -force, -gill, -mel, -royd, -scales, -sear, -slack, -thwaite, etc., e.g. Crosby, Scawfell, Stockgill-force, Sparrow Gill, Cartmel, Heyroyd, Ellisscales, Walney Scar, Burn Slack, Walthruite, and patronymics in -son, e.g. Johnson.
(3) Miscellaneous words like fellow, call, ugly, bas7, egg, geysir, husband, thwart, scant, furlough, gauntlet, hustings, naru'hale, ransack, riding, Valhalla, wilining, walrus, window, together with the pronouns, they, their, them.

French belongs to the Romance group, and is a descendant of the lingua romana rustica of the Latin soldiery. The introduction of Norman-French words into English represents, consequently, an indirect influx of Latin words. Norman-French was spoken in England chiefly by the upper classes and the clergy, and became the recognised language of the law-courts. By 1350, a considerable number of French words had made their way even into the speech of the masses. Meanwhile, English was becoming more general everywhere ; it was introduced into the lawcourts in 1362, and gradually adopted in the schools. By 1400, Norman-French ceased to be spoken in England. The superior culture of the Normans led to the introduction of many social terms, including various titles, e.g. mayor, marquis, viscount, page, master, scrivener, butler, and words associated with refined living, e.g. banquet, napery, supper, usher, beef, mutton, bacon, pork, roast, fry. A number of military, legal, and trade terms are of similar origin, e.g. arms, siege, banner, oriflamme, harness, lance, petronel, tower, court, mace, jury, gaol, mortmain, act, council, county, city, lorimer, mariner, draper, painter, carpenter. In contrast with this, the names of a few time-honoured trades are English, some of which are preserved exclusively as proper names, cf. baker, smith, Falconer, Webster, Chalon, Chapman, etc. The names of immediate relations are English, e.g. father, daughter, mother, but the less immediate are French, e.g. aunt, cousin, niece. Modern French importations have been mainly society and art terms. The relative date of borrowing is
often apparent from the form. Early French borrowings became naturalised in English, and followed the course of the native development, as regards both sound and accent, e.g. AF. honouir has become E. hónour, and AF. grace has raised its à to è like ME. näme. Again, Anglo-French ch had the value of tch and g of dzh, as in chandler, chivalry, chamber, gem. These must, therefore, be relatively early borrowings compared with chandelier, champagne, gendarme, in which $\mathrm{ch}=\mathrm{sh}$, and $\mathrm{g}=\mathrm{zh}$. The spelling of words like etiquette, élite, beaumonde is an indication of late borrowing. Sometimes, a borrowing in a foreign tongue represents an older type than the current form of the word in the language from which it has been borrowed. E. veal is older in form than F. veau, E. ticliet than F. étiquette, though we have now adopted the latter, as well. The influence of Anglo-French on English syntax was hardly as considerable as has been sometimes maintained. Tendencies inherent in English were hastened by contact with French, but scarcely originated there. There are, however, many indications of French influence, e.g. wythout defence makinnge (OF. en pais faisant), hors Synon (Mod. F. hôtel Dieu), and the Shakespearean example cited above.

It would be too long a task to illustrate the influence upon English, in modern times, of Romance languages like Italian and Spanish, of Germanic languages like Dutch and German, or of Slavonic and Aryan. The influence of the non-Indo-Germanic tongues would also need to be reckoned with, in a
complete account. The history of each individual borrowing would in itself constitute a romance, were we able to reconstruct it, and would afford the most varied illustration of linguistic contact, in its different aspects.

## CHAPTER X

## ENGLISH SOUNDS AND SPELLING

Written language represents an attempt to express for the eye the sounds of spoken language, the devices employed being more, or less, primitive according to the stages of development, at which the particular language has arrived. At an early stage in history, single words were represented by single pictures or pictograms, as in ancient Chinese. Were this original system still in vogue, it would be necessary to commit to memory, for the purposes of English literature, some 10,000 such pictograms. The ideogram, which symbolised an object in place of graphically representing it, gradually displaced the pictogram, an arrow representing an enemy, the direction of its flight that of the enemy, and so on. The Indo-Germanic languages are, more or less, phonetic in their script.

If we analyse the word band we find it to consist of four speech-sounds: (1) a voiced labial explosive or stop, (2) a low mixed vowel, (3) a voiced dental nasal, (4) a voiced dental explosive. For these sounds the written symbols stand. Unfortunately, a separate symbol for each sound is lacking, and, in some cases, two or more symbols stand for one and the same
sound. Phonetic spelling demands that there should be one symbol, and one symbol only, for each sound in a language.

The ambiguity of English spelling becomes apparent when we realise the fact that
c has the value of both k and s ;
j is a double sound, a combination of d and zh ;
$q=k+w ;$
$\mathrm{x}=\mathrm{k}+\mathrm{s}, \mathrm{g}+\mathrm{s}$, or z .
Our alphabet thus contains redundant letters, and is, at the same time, deficient in a number of necessary symbols. To represent some sixteen vowel sounds we have but five symbols (six if we include y), to represent some twenty-three consonantal sounds but seventeen symbols. The result is the employment of digraphs, like au, ai, ie, sh, th, wh, ng. This involves no serious objection, provided only that the digraphs are used consistently.

The radically defective condition of Modern English spelling may be illustrated by a set of examples:
a represents a wide variety of different sounds (stressed or unstressed) in name, bare, man, father, water, want, village, separate, antarctic.
e in be, here, there, bed, alert, moment, father.
i in hit, ice, hire, fir, pique, nadir, trinity.
o in bone, glory, north, rob, do, son, word, fathom.
u in pure, suit, much, murmur, occiput.
On the contrary, the same sound may be represented by a variety of symbols :
a in name by ai in exclaim, ay in may, ea in great, ei in deign, ey in they, ao in gaol, au in gauge, etc.;
m in name by mm in hammer, gm in phlegm, lm in psalm, mb in lamb, mn in hymn, mp in Hampden, lme in holme, mme in programme, n in Banff, ntre in Pontrefract.

Silent letters are of common occurrence, and illustrated by the examples just given. Familiar cases are p in psalm, psychology, ph in phthisis, b in doubt, debt, c in scent, science, k in Finave, linuckle, n in limn, etc.

The defects of our spelling system are obvious, and it is not surprising that attempts to introduce reform have been made, from time to time. In general, we may recognise two directions along which such reform can take place. The first represents a compromise, an attempt to improve the current spelling by additions and retrensions. The second, of a much more sweeping character, would completely remodel the existing system on certain definite principles. With this second system are associated the names of several modern scholars.

Ellis in his so-called Glossic system made a more or less arbitrary selection of symbols to serve as representatives of the different sounds. Thus:
ei had the value of ei in height,
ou " " " ou in foul,
oo " " " oo in cool.

Sweet followed with his Romic system, in which he assigned their Latin or "continental" values to a, e, $i, o$, $u$, and introduced a scientific method of representation. It is obvious that two different principles
have been followed by these scholars, for, while Ellis assigned to his symbols values not unfamiliar to modern Englishmen, Sweet revolutionised the whole system of sound-representation as far as 20th-century English is concerned. The method of the Simplified Spelling Society is more akin to that of Ellis. Familiar symbols are employed, the principle being to select those which occur most frequently as representatives of particular sounds.

$$
\begin{array}{ll}
\mathrm{a}=\mathrm{a} \text { in hat } & 00=00 \text { in book } \\
\mathrm{e}=\mathrm{e} \text { in set } & \mathrm{ai}=a \mathrm{i} \text { in pail } \\
\mathrm{i}=\mathrm{i} \text { in sit } & \text { aa }=a a \text { in baa } \\
o=o \text { in hot } & a u=a u \text { in haul } \\
\mathbf{u}=\mathrm{u} \text { in cut } & e e=e \text { in been } \\
\mathrm{ie}=\mathrm{e} \text { in die } & 0 e=o \text { in broken. }
\end{array}
$$

The consonants have their usual values.
A specimen sentence from The Pioneer (Oct. 1914) may be given:
"Brij oever the speech barier, sielens the diskordz ov Babel, bring the peeplz ov diferent nashonalitiz intu the intimait relaishonship ov the spoeken wurd, and yu hav gon mor than a step or tuu on the paath ov yunivursal brutherhood."

It should be observed that this system represents a compromise, not, like that of the Association phonétique internationale, a revolutionary reconstruction. For philological purposes some such system as this latter is indispensable, though it would be impossible to introduce it into general currency. Even the modified reforms of the Simplified Spelling Society are likely to
arouse opposition. The stock arguments that reformed spelling will result in (1) concealment of the etymology of particular words, (2) confusion of words sounded alike, etc., are easily refuted. The advantages of a reformed spelling not only to the young and to foreign learners but also to adult Englishmen are obvious. The ingrained conservatism of the English people makes it doubtful, however, whether any scheme that advances beyond mere additions and retrensions can hope for success. Further, Dr. Henry Bradley's argument must not be overlooked, that a great mass of dictionary-English is of purely literary use, and scarcely ever employed colloquially. Consequently, we have little ear-linowledge of these words, and tend to regard them as symbols of things and ideas, rather than of sounds. A limited number of changes have been proposed in the United States, and a parallel list might be drawn up for England. Scent (F. sentir), sovereign ( F . sonverain), victuals ( F . vitailles), receipt (F. recette), posthumous (L. postumus), all contain otiose letters which not only do not serve as a guide to the etymology, but even obscure it.

A complete explanation of the extraordinary condition of modern English spelling can be obtained only after a prolonged study of its history in connection with that of sound-change. The oldest Germanic inscriptions are in the runic alphabet, in which $\mathbb{M}=e$, $P=w, \Gamma=l$, etc. After the introduction of Christianity the Anglo-Saxons adopted the Celto-Latin alphabet, which they supplemented by the addition of two runic letters, the sign for $w$, and $p=t$ th. Under the influence of

French, $g$ was substituted for 3 , w for $u u$, and qu for cw after the Conquest. The letters j and v (varieties of $i$ and $u$ ) gradually supplanted the latter in consonantal function. The occasional representation of $p$ by $y$ and 3 by z has resulted in false pronunciations of words like $y^{\text {e }}$, capercailzie, gaberlunzie, etc. The vowel system has undergone much more considerable changes.

The system of sound representation in the oldest periods of the language was practically phonetic. For the end of the Germanic period so-called the following vowel-system may be assumed :

| Germanic | a | e | i | 0 | u |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\overline{\mathrm{a}}$ | $\bar{\varpi}$ | $\overline{\mathrm{e}}$ | $\overline{1}$ | $\bar{o}$ | $\overline{\mathrm{u}}$ |
|  | ai | aul | eul | $\mathrm{i} u$ |  |  |

The corresponding system in Old English (WestSaxon) was

| $æ$ | a | e | i | o | u |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\bar{æ}$ | $\overline{\mathrm{a}}$ | $\overline{\mathrm{e}}$ | $\overline{1}$ | $\bar{o}$ | $\overline{\mathrm{u}}$ |
| $\overline{\mathrm{e}} \mathrm{a}$ | $\overline{\mathrm{e}} \mathrm{O}$ | $\overline{1} 0$ |  |  |  |

to which as a result of sound-laws operating in this area we must add
$\breve{y}$ й ea eo io

From the 14th century, Standard English, though originally Southern in character, began to approximate more and more to the Midland type, the forms of which, in the OE. period, agreed generally with their West-Saron cognates, the chief variations being that WS. İe usually appeared as Merc. ĕ, WS. 荧 as е̌, WS. ē as č.

As the result of various changes isolative und combinative, the latter including diphthonaisation. before $g$ and $h$, lengthening before d, $x d$, mb, nd' ng, rl, rn, and in open syllables, and shortening before consonant groups, the following changes occurred in the transition from Old to Middle English.

OE. æ (a) > ME. ă, ${ }_{\mathrm{Q}}^{2}$, au, ai. cf. ME. asse, hāre, mǫn, l̄̄nde, sauh, dai
 erl, singe, leide
OE. i $\quad>$ ME. ì. cf. ME. hider, finden
OE. o > ME. $\overline{\bar{o}}, \bar{o}, \frac{\text { QQu. cf. ME. flok, nōse, }}{}$ hörd, trqugh, bāue
OE. u > ME. प̆. cf. ME. sumer, pünd
OE. y > ME. ü, e, Ì. cf. ME. blüsch, meri brigge, lie
OE. $\bar{a} \quad>$ ME. $\overline{\bar{a}}, \bar{Q}, \frac{\bar{L}}{u} u . ~ c f . ~ M E . ~ s t a ̄ n, ~ l a m-~$ masse, brēd, qught, crōuen
OE. $\bar{x}(e \bar{e} a)>$ MIE. $\bar{\epsilon}, ~ e ̀, ~ e, ~ a, ~ a u, ~ e ̂ ̀ i, ~ e ̨ u . ~ c f . ~ M I E . ~$ hèlen, wèren, medwe, lasse, taughte, clę̀, lęued
OE. è (ēo) > NLE. È, ēi, èu. cf. ME. gès, mette, twë̀e, trëupe
OE. ì > ME. ī, īu. cf. ME. fîue, fifftig, spiuen
OE. ò > ME. ō, ō̆u. cf. ME. bōk, gossomer, soughte, blöue
OE. $\overline{\mathrm{u}} \quad>$ ME. $\check{\mathrm{n}} . \quad$ cf. ME. $c \bar{u}$, dust
OE. $\overline{\mathrm{y}} \quad>$ ME. 茑, ё, Ĭ. cf. ME. für, küdde, brēde, kedde, kithen, kidde

The net result was that Middle English possessed н 2
the following vowel-system, developed out of native sources alone :


The peculiarities of Modern English Spelling represent, on the whole, a heritage from Middle English, with an increased employment of ea for $\bar{e}$, oa for $\bar{Q}, \mathrm{dg}$ for gg , tch for ch, etc. Modern English spelling is, accordingly, highly conservative, adapting an archaic system to a new set of sounds. A number of examples will serve in illustration.

The word path is still spelt as in Middle English but the a was fronted in the 15th or 16th century, lengthened, and retracted later to $\bar{a}$. Hence the modern phonetic spelling would be püb.

Heart represents ME. herte, in which e has been lowered to a, fronted, lengthened, and retracted; bird, ME. brid, has undergone metathesis, vowel-lengthening, and lowering to $\bar{\Lambda}$; soft, ME. soft, shows lengthening to $\bar{Q}$; much, ME. müchel, unrounding of $\ddot{u}$, retraction, and lowering to a.

Name represents ME. nāme, in which $\bar{a}>\bar{æ}(15$ th century) $>\bar{\varepsilon}>\bar{e}$ and finally $\bar{e}^{-1} ; ~ m e a t, ~ M E . ~ m e ̂ t e, ~$ where $\bar{\varepsilon}>\bar{e}>\bar{i} ;$ deer, ME. dèr (or deer), with a development similar to that of $\bar{q}$ : find, ME. finden, with diphthongisation of $\overline{1}$ to ai; stone, ME. stōne, with narrowing of $\bar{q}$ to $\bar{o}$; mood, ME. mōd (mood), with raising of $\overline{\bar{c}}$ to $\overline{\mathrm{u}}$; pound, ME. pünd (pound), with diphthongisation of $\bar{u}$ to au.

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Day represents ME. dai, with monophthongisation of ai to $\bar{e}$ and narrowing to $\bar{e}\left(\bar{e}^{i}\right)$; law, ME. laue, with monophthongisation to $\bar{q}>\bar{Q}^{p} ;$ grey, ME. grêi, reduced to. $\bar{\varepsilon}$ and narrowed to ē $\left(\bar{e}^{i}\right)$; bow, ME. beque, reduced to $\bar{Q}$ and narrowed to $\bar{o}>\bar{o}^{-u}$.

Of these changes the most revolutionary are those embraced under the term the great vowel-shift, the beginnings of which date back to, at least, the 15th century. As a result of this revolution, the scale of long vowels $\bar{u} \bar{o} \bar{Q} \bar{a} \bar{e} \bar{e} \bar{i}$ was seriously modified, the extreme vowels undergoing a gradual diphthongisation, and the rest moving towards the extremes.

| ME. $\bar{u}>$ |  | OE. pund, ME. pünd, Mod.E. pound |
| :---: | :---: | :---: |
| $\overline{\text { o }}>$ | $\overline{\mathrm{u}}$ | OE. cōl, Mod.E. cool, |
| $\bar{q}>$ | ${ }^{\circ}$ | OE. stän, ME. stōne, Mod.E. stone |
| $\bar{a}>$ | è | OE. nama, ME. nāme, Mod.E. name |
| $\bar{\epsilon}>$ | i | OE. $s \bar{x}$, ME. $s \bar{q}$, Mod.E. sea |
| $\bar{e}>$ | i | OE. bēon, ME. bèn, Mod.E. been |
| ${ }^{1}>$ | ai | OE. scinan, Mod.E. sh |

The most important of the sound-changes, which have taken place since the close of the OE. period, may now be indicated with some attempt at chronological sequence. Older views have been considerably modified since the appearance of Zachrisson's Pronunciation of

English Vowels and Wyld's History of Modern colloquial English.

OE. $\bar{a}>\bar{\varphi}$ in the Midlands and Southern area c. 1150, and short vowels began to be lengthened in open syllables after 1250. Final -e ceased to be sounded after 1400. During the period ending at 1400 (a) short e > a before r, (b) short e > i before ng, (c) short $o>u$ before ng.

During the 15 th century short i followed by palatal $\mathrm{h}>\mathrm{i}$, and short $\mathrm{a}+\mathrm{l}+\mathrm{c}>\mathrm{au}$, afterwards monophthongised to $\bar{q}$.

In the 16 th century $\bar{q}>\bar{o}$, and $\bar{a}>\bar{e}$; that is, the vowel-shift, begun at least as early as the 15 th century with the changes $\bar{a}>\bar{x}, \bar{e}>\bar{e}, \bar{e}>\overline{\mathrm{i}}, \bar{o}>\overline{\mathrm{u}}$, and the partial diphthongisation of $\bar{i}$ and $\bar{u}$, was further developed. To the same century is ascribed the rounding whereby wa $>$ wo.

In the 17 th century $u$ completed the unrounding and lowering process which resulted eventually in a. To the same century is ascribed the reduction of $-r$ - between vowel and consonant to $\theta$, in words like bird.

The diphthongisation of long vowels, whereby $\overline{\mathrm{e}}>\bar{e}^{i}, \bar{o}>\bar{o}^{\mathrm{u}}$, etc., began early in the 19th century.

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[^0]:    ${ }^{1}$ The possibility that so-called isolative sound-changes are cond itioned by neighbouring sounds is maintained by Dr. E. Classen (Modern Lang. Review, July, 1919).

[^1]:    ${ }^{1}$ Cf. Streitberg : Urgermanische Grammatik, p. 104.

[^2]:    ${ }^{1}$ The initial aspirate has undergone dissimilation in Sanskrit.

[^3]:    ${ }^{1}$ Cf. Bradley: The Making of English, pp. 154-9.

[^4]:    ${ }^{1}$ Cf. The Oxford Dictionary.

