To Professor H. K. Laing
with most cordial greetings,
E. P. M.

Yale Bicentennial Publications

ON PRINCIPLES AND METHODS IN LATIN SYNTAX

Yale Bicentennial Publications

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ON

PRINCIPLES AND METHODS

IN

LATIN SYNTAX

BY

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PREFACE

Two things only need to be said by way of preface to this book. In the first place, it makes no claim to the character of a systematic statement of the principles of syntax. It is a discussion of certain principles and of the methods of investigation to which these principles lead. In the second place, it deals primarily with Latin. If some of the chapters are equally applicable to the syntax of other languages, that is only because it is impossible to write of the fundamental questions of syntactical method without going beyond the phenomena of a single language. The illustrations are all from Latin, and nearly all from Plautus, many of them being taken, as are portions of some chapters, from articles of mine in the American Journal of Philology, to which reference is made at the proper place.

My obligations to other writers on syntax and linguistics are indicated occasionally in the notes, but the character of the book does not call for a bibliography. I cannot refrain from expressing my regret that the second part of the first volume of Wundt's *Völkerpsychologie* appeared too late for me to use it.

I am under personal obligation to several of my colleagues in Yale University: to Professor Duncan for a patient hearing of Chapter II, to Professor Sneath for helpful criticism, to Professor Ladd for suggestions acknowledged in the note on p. 145, and to my philological colleagues, Professors Goodell, Hopkins

and Lang, for much suggestion and encouragement. But my heaviest obligation and one which I scarcely know how to express sufficiently is to Professor Oertel. Many of the subjects in this book I have talked over with him repeatedly during the past ten years, seldom without enlightenment and quickening. It would not be possible for me now to discriminate in certain chapters between what I owe to his suggestion and criticism and what is my own, and I must content myself with this general and grateful acknowledgment.

E. P. MORRIS.

YALE UNIVERSITY,
July, 1901.

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LATIN SYNTAX

I

INTRODUCTORY AND HISTORICAL

INTELLIGENT scientific work demands an intelligent understanding of method, upon its theoretical as well as upon its practical side, and method is intelligible only through its history. It is proposed, therefore, in this introductory chapter to sketch briefly the methods employed during the last quarter of a century in syntactical work in Latin.

The subject of itself imposes certain limitations which, to prevent misunderstanding, must be laid down at the outset. In the first place, the sketch will be confined to work in Latin. It is to be regretted that students of Latin syntax are not more familiar with the work in Germanic and Romance philology, where the influence of earlier systems has been less strongly felt and where originality of view and of method is easier; but it is apparently a fact that Latin syntax has not been influenced by the syntax of the spoken languages. To a considerable extent this appears to be true also of Greek work, but as the methods employed are in the main identical, the influence is more difficult to detect and at the same time less important. The methods of comparative syntax, however, must be to some extent

included within the discussion. In the second place, this is a sketch of methods, not of results, and some contributions to Latin syntax which would deserve a large place in a complete history of Latin philology may be passed over in a sketch of the history of method. Nor will any attempt be made to pass judgment upon the merit of the works mentioned. Great discoveries have been made in poorly equipped laboratories, and, on the other hand, the excellence of the method employed may be unnoticed because of the writer's imperfect use of it or his ignorance of the facts. In the third place, I am not sufficiently acquainted in a practical way with the controversies about the case-system to be willing to enter upon that field. This is, certainly, a large omission, and I regret it the more because case-syntax seems to be in advance of mode-syntax in freeing itself from the dominant influences of the half-century. Yet it may, I think, be assumed that the general course of case-syntax has been the same as the course of investigation into the meaning of modal and temporal forms.

Of the syntax of the middle of the century much has been written and its characteristics are well known. It was not a special science, working for its own ends, but like palaeography or text-criticism it was still in service to classical philology. Even in this field the amount of detailed work was still small,[1] and the range was narrow. The sub-title of Weissenborn's *Syntax der Lateinischen Sprache* (Eisenach, 1835) is *für die oberen Klassen gelehrter Schulen;* that is, it was in-

[1] See Draeger's statement of the extent to which he was obliged to rely upon his own collections (*Vorrede* to Vol. I, pp. iv ff.) and compare the small number of syntactical works referred to in Ritschl's first edition of Plautus with the long list in the final edition of Goetz, Schoell and Loewe.

tended to be a descriptive and practical statement of the facts of usage.

But in one respect the early syntax was theoretical, — in the philosophical or logical conceptions which formed the basis of its schemes of classification.[1] Much of this has now been swept aside, sometimes with an insufficient appreciation of its real meaning and of its lasting value, but in two directions it still influences our syntactical work. The first of these is in the classification of subordinate clauses, where the logical or metaphysical categories of time, purpose, condition, etc., still prevail in most grammars, though they are not so largely used in the actual work of investigation. The second and perhaps more important influence is in the definition of modes and cases.

It is of the essence of philosophy and logic to reduce all phenomena to system by definition, to find the single underlying truth about which all things are to be grouped. And therefore the chief object of a logical scheme of the modes was to discover the *Grundbegriff*, and the chief inheritance which we still preserve from the syntax of the eighteenth century and the first half of the nineteenth is the belief that the enigma of modal use, and indeed of syntax generally, is to be solved by some kind of definition, psychological if not metaphysical or logical. The content and basis of the definition have changed; the feeling that a definition of the modes is necessary has remained a dominant force in syntax up to the present time.

The first significant break from these systems was made by Lange in the paper entitled *Andeutungen über*

[1] On all this see the valuable programs of K. Koppin, *Beitrag zur Entwickelung und Würdigung der Ideen über die Grundbedeutungen der griechischen Modi;* I, Wismar, 1877; II, Stade, 1880.

Ziel und Methode der syntaktischen Forschung.[1] Lange's prime object was to claim a place for syntax as a special science, with aims and methods of its own, and this object was so far attained that he has been recognized as the founder of modern historical syntax. But this is not the only merit of the paper. It touches upon nearly all the problems which have occupied the science since that time — the distinction between form and function, the relation of syntax to semasiology, parataxis, the formal classification of the subordinate clause — and frequently suggests in single sentences most remarkable anticipations of the method and aim of later work.

Its immediate influence, however, was not great, at least so far as appears in the printed work of the time. Holtze's *Syntaxis Priscorum Scriptorum Latinorum*, 1861–62, which was of course planned and largely completed before Lange's paper appeared (*et est hic labor . . . plus viginti annorum*, Praef., p. v), still followed the older lines, and Draeger's greater work, superior as it was in logical precision and in detail, introduced no new principle. Holtze's selection of the early Latin as a special field was in fact a recognition of the desirability of historical treatment quite as distinct as was indicated by the word *historische* in Draeger's title. For *historical*, in the sense in which Draeger uses the word, is scarcely more than *chronological;* that study of the sequence of causes and effects which is suggested to our minds by the phrase *historical syntax* was unknown to Draeger. In his frank and interesting *Vorrede* he compares himself to an entomologist or a botanist, that is, his work was like the classifying and

[1] Printed in the *Verhandlungen d. 13ten Versammlung Deutscher Philologen*, pp. 96 ff., Göttingen, 1853.

descriptive sciences, before the publication of "The Origin of Species." The influence of the book, the extent of which can be seen in the great number of doctor-dissertations which follow its system, is due to the extreme clearness and precision of the scheme of functional classification, rather than to any originality in the syntactical method.

In general, Kühner's *Ausführliche Grammatik der Lateinischen Sprache* belongs to the same school of thought, as it belongs to the same period of time, as Draeger's Syntax. There is the same functional classification, the same elaboration in subdivision. But the fact that Kühner's plan involves explanation of facts, as well as classification, necessitates definition, and the definitions reintroduce the logical conceptions of language from which Draeger, except in his system of classification, was more nearly free. Kühner's definition of the sentence — that dangerous point for all syntacticists — is logical, and his scheme of the modes, though he repudiates the philosophical categories (Vol. II, p. 126, *Anm.*), is only partially psychological. Even where the point of view is correct, the practice of beginning each subject with definitions, of which the succeeding sections afford illustrations, leads to *a priori* statements which in their spirit and tendency belong to philosophical syntax. See, for example, the distinction between the dative and the ablative, II, 256, and between the ablative and the adverb, II, 257; these are not the result of induction, but are deduced from general definitions of the cases and the adverb; they are rather descriptions of what a logically precise language ought to be than statements of the actual usage of so irregular and hap-hazard a mass of phenomena as language presents.

Draeger and Kühner may be taken as the last and best representatives of logical grammar. The traces of that school of syntax which still remain in our grammars do not indicate an active working of the older conceptions, but a passive survival, a traditional preservation of the ideals of the previous half-century.

Meanwhile the main work of classical philology during the middle years of the century was in text-criticism, and the main work of philology in the narrower sense was in comparative philology and in morphology. The influence of this work was not greatly felt by Draeger, nor, in spite of the fact that his first volume is a compendium of Latin morphology, by Kühner, perhaps because the original plan of both works dates back to a period when classical philologists were still somewhat suspicious of the newer science, but upon later methods in syntax the influence of comparative morphology has been very great. Georg Curtius may be taken as the representative of this influence, not so much for what he did as because it was he who more than any other philologist interpreted to classical scholars the work of comparative philology. The beautiful clearness of his system as taught in his lectures and in his writings especially fitted him for this office, and gave to his teachings an authority with classical scholars greater even than the authority which was conceded to him by other comparative philologists, great as that certainly was. It was, in particular, through his application of the theory of agglutination that he affected the method of investigation in syntax. For that theory taught that the inflected forms of the Indo-European languages were the result of the appending of elements once distinct and having distinct meanings to stems which also had distinct meanings. The result of such composition

would be a form of distinct meaning, and where it was possible, as it appeared to be in the case of many verb-forms, to analyze a compound into its component parts, the original meaning of the inflected form could be known, and would be the proper starting-point of any syntactical or semasiological study of its historical uses. In some form, and with reference chiefly to the morphological side, this theory is perhaps still the passively accepted belief of philologists, but it was held thirty years ago with a much stronger and more unquestioning conviction, and especially with more confidence in the explanation of meanings by the process of analysis. Reservations and scientific caution are less easily learned than general theories, and it is probably true that classical scholars accepted the results of comparative philology with an unjustified degree of confidence, and applied them more sweepingly than their authors would have ventured to do. There is, indeed, evidence that Curtius himself did not draw from the theory of agglutination the conclusions which were drawn by syntacticists, but sanction from without, from another science which is imperfectly understood and therefore the more respected, almost always carries undue weight. In this case the tendency was strengthened by the fact that the habit of definition, inherited from philosophical syntax, the predisposition to explain a case or a mode by some single word broad enough to cover all its uses, still remained after the views of language which gave rise to it had been discredited. To this predisposition comparative philology seemed to give a scientific support. Definition by a process of analysis which determined the significant elements of an inflected form, and which thus determined the original meaning of the form itself, took the place of definition by philosophical categories.

The basis of the definition was changed, but the habit of regarding the discovery of some single meaning, about which all other meanings and uses could be grouped, as the proper and sufficient explanation of an inflected form still remained and became the dominant influence upon syntactical method for many years.

It is not unlikely, also, that the disposition to seek for the ultimate explanations of syntax in the primitive meanings of forms was strengthened by the general drift of the thought of the nineteenth century toward the study of origins. Some other branches of philology were distinctly affected by the methods of natural science, and the early use of the comparative method and its application to text-criticism show that philology shared, if indeed it may not be said to have started, the current of its time, just as it had shared the philosophical tendencies of the eighteenth century.

The influence of the views of Curtius is well illustrated in Lübbert's first work, *Der Conjunctiv Perfecti und das Futurum Exactum.* This was published in 1867, before Draeger's Syntax or Kühner's Grammar. The question which it discussed, the difference between *fecero*, *fecerim* and *faxo*, *faxim*, had been treated before by other scholars, especially by Madvig, and their explanations had involved a theory of the morphology of *faxo*, *faxim;* but in Lübbert the morphological argument is not incidental, it is one of the two main supports of his conclusion. In the order of the sections, those which deal with the form precede those which deal with the syntactical usage, and the conclusion of the whole book is plainly based upon the belief that *faxo* is aoristic in form and that this fact determines the fundamental meaning and therefore the later usage. It is true that in some of the details of the argu-

ment Lübbert follows Bopp rather than Curtius (*e. g.*, pp. 67–68), but in the general character of the argument from formal analysis to *Grundbedeutung* and from this to usage, he is following the method of which Curtius is the most conspicuous exponent. Since Lübbert's time it has become the standard and orthodox method to begin the syntactical treatment of an inflectional form with a morphological argument — which in many cases is in truth a necessity — and to make the meaning which is obtained by means of morphological analysis the foundation of all later usage.

The supplanting of philosophical views of language by psychological conceptions has been a long process and is not yet complete. Koppin, in his program of 1880, pp. 3–12, shows that at least as early as the beginning of the century psychological definitions of the Greek modes were attempted, and during the first half of the century the gradual falling away from logical systems was due in part to the gradual rise of other views, as, for example, of the localistic theory of the cases (1831), which in spite of its use of semi-logical categories is in essence psychological. Kühner's modal scheme, as has been said above, is partly psychological; *begehren* and *vorstellung* are used together in describing the subjunctive. Lübbert's first section is headed *Psychologische Grundanschauungen in der Sprache*, though it is very brief and the psychology is scarcely distinguishable from philosophy. In the wider field of general linguistics the intimate relation between psychology and philology was of course recognized much earlier than in syntax; Steinthal's *Grammatik, Logik und Psychologie* was published in 1855. But the substitution of psychological fundamental meanings for philosophical in the field of the modes marks, never-

theless, the beginning of a new epoch in syntactical method.

The book which brought about this change was Delbrück's *Conjunctiv und Optativ*, the first volume of the *Syntaktische Forschungen*, published in 1871.[1] It is not necessary to make a detailed statement of the contents of this well-known work. Of its two main theses the second, that all subordinating function is acquired, was the less original and has been the more widely accepted. The first proposition (pp. 11–30), that the earliest meaning of the subjunctive was Will, of the optative Wish, has been at the same time more important in its influence upon later work and more earnestly questioned.[2] The method used in establishing this proposition therefore demands special comment.

1. The field of inquiry in regard to the earliest meaning of the modes is narrowed by the exclusion of interrogative sentences on the ground that the question represents, psychologically, a check in the natural movement of the train of concepts, and of negative sentences on the ground that they are modifications of the declarative sentence. It is difficult not to see in these exclusions an unconscious survival of the logical

[1] Delbrück's earlier work, *Ablativ, Localis, Instrumentalis*, Berlin, 1867, I venture with some hesitation to leave out of this brief sketch, in spite of the fact that it is the basis of all later treatment of the Latin ablative. Its method is, in my judgment, superior in some respects to that of the *Conjunctiv*, in that the uses of the cases are interpreted in the light of the accompanying verbs and prepositions. But in part the method is the same; usages are held to be connected when they have a common element in meaning. It is this part of the method which has apparently found most followers.

[2] This was later modified by Delbrück so far as to make futurity a more prominent element, either because of the criticism of other scholars (see Greenough's review in The North American Review, 1871, CXIII, 415) or as a result of the author's own revision of his position.

view of language, which took the unemotional declarative sentence as the normal type. On the contrary, the unemotional narrative sentence is the later and, so to speak, the more artificial form, nor is the exclamatory and questioning attitude of mind any less natural and primitive on the psychological side. In following only the modal development of the non-interrogative, non-negative sentence, Delbrück ran the risk of omitting elements which entered into the primitive meaning and of reaching an incomplete and one-sided result.

The exclusion of all persons except the first person singular is still more important. In Latin the subjunctive is used but rarely in the first singular in independent non-interrogative sentences. In Plautus the ratio in the present tense is about 1:12; excluding the form *uelim*, it is only about 1:35. The ratio may be much greater for Homer, but the probability that the exclusion of the second and third persons has distorted the result is still considerable. The reason given for this narrowing of the field is (p. 13) that the wish in the first singular involves only one person while the wish in the second or third singular involves at least two; we must therefore suppose that the earliest use of the optative is found in the first singular and may expect the same thing in the subjunctive. This is, so far as the optation is concerned, a pure assumption, for the attitude of mind involved in wishing that another person may come to harm is not more complex than that of wishing for one's own well-being, and, so far as the subjunctive (and the will) is concerned, it is a mistaken assumption. The situation in which one expresses his will in regard to his own action is comparatively rare and artificial, except when the will takes the form of determination, which is usually expressed by a future. The

will, in the somewhat unfortunate sense in which that word is used in English by philologists, is most naturally felt and expressed in regard to the action of other persons than the speaker.

2. The object of the investigation was to find, not the most abstract term which would cover all the uses of the modes, but the earliest meaning, the primitive meaning. This is a question of chronology, of dates, or, where the evidence of actual usage is not accessible, of relative antiquity. Such a question is of course surrounded by immense difficulties and the solution can be at best only an approximation. But the greater the difficulties, the more distinctly must they be faced and the more clearly must we keep in mind the fact that the investigation is fundamentally chronological. It is at this point that Delbrück's method is least clear. There are no criteria of the relative age of different usages beyond the criteria implied in the exclusions noted above, with the accompanying reasons, and after the first few pages the question shifts from the position taken at the outset and becomes a question of the psychological analysis of certain usages.

3. As a basis for subdivision, after the main classification by form of sentence and person and number of the verb, Delbrück selected the intensity of the expression of will or the proportion of will to expectation and opinion, rejecting the attempt to classify by the content or object of desire, that is, by the meaning of the verb. This selection and rejection was the parting of the ways. It has had two consequences. In the first place, the sub-classes thus made are large and vague abstractions, — will, exhortation, command, obligation, wish, concession, futurity, — abstractions which cannot be defined with precision nor discussed without the danger

of confusion. The determination of the class to which a particular case belongs must be chiefly by translation, and though in Delbrück's hands the tendency to rely upon translation and to treat abstractions as realities is checked by scientific reserve and candor, in the hands of some of his followers it has been distinctly misleading. In the second place, the grouping of expressions of desire according to the intensity of the desire brings together things which may be associated in a system, but are not associated in our actual psychological experience. In experience we associate our desires in groups according to the thing desired. Hunting, fishing, sailing; reading, studying, thinking; eating, drinking, resting, smoking; gardening, carpentering, tinkering: it is in such groups that our desires, whether in the form of advice or concession or exhortation to others or with reference to our own action, are associated in our minds. And it is these lines of association which give rise to analogies and assimilations of expression, and which therefore indicate the fruitful lines of syntactical inquiry. The turning aside from this field of study to the classification according to intensity of will and wish is the serious defect of the book.

The criticisms which followed Delbrück's attempt to establish the *Grundbegriff* of the subjunctive and the optative need not be taken up here. They came from Lange, Ludwig, Bergaigne, and Koppin, but did not prevent a rather general acquiescence in Delbrück's results. The most elaborate of them, Bergaigne's *De conjunctivi et optativi in indoeuropaeis linguis informatione et vi antiquissima*, Paris, 1877, has apparently attracted less attention than it deserves. It is, however, mainly a discussion of questions of comparative philology, and must be passed over here with a general

commendation of its method to any who may be interested in these questions.

In America Delbrück's work has been accepted with enthusiasm, though Greenough, in the review mentioned above, questioned its results and proposed to substitute futurity as the common beginning of both modes. The method of Greenough's own pamphlet on the Analysis of the Latin Subjunctive, 1870, is not dissimilar to Delbrück's, but it was privately printed, and its brilliant speculations and fruitful suggestions, though they doubtless prepared the way for the acceptance of Delbrück's more elaborate work, have not directly influenced the course of Latin syntax in this country.[1] After Greenough three American scholars may be named as representing in different ways the prevalent school of Latin syntax in this country.[2] Hale's work is in The *Cum* Constructions, Part I., 1887, Part II., 1889 (German translation, Teubner, 1891), in The Anticipatory Subjunctive in Greek and Latin, 1894, and in various articles. Bennett's work is in the Appendix to his Latin grammar, Boston, 1895, and in his Critique of Some Recent Subjunctive Theories (Cornell Studies, IX, 1898), and more recently in The Stipulative Subjunctive in Latin (Transactions of the Amer. Philol. Assoc., XXXI, 223 ff.). Elmer's chief contributions to syntax appeared in the American Journal of Philology, XV, 2, 3, reprinted as a pamphlet entitled The Latin Prohibitive, and in Vol. VI of the Cornell Studies (Studies in Latin Moods and

[1] Indirectly, through the Allen and Greenough grammar, some of these suggestions have exerted a considerable influence. But for various reasons school and college grammars must be passed over in this sketch.

[2] *Et monere et moneri proprium est uerae amicitiae et alterum libere facere, non aspere, alterum patienter accipere, non repugnanter.*

Tenses). I venture thus to place the work of these three scholars together, because the question is not of results, in regard to which they differ, but of method, and their method is in all essentials nearly enough identical to justify general rather than individual description and comment.

It has been said above that the methods and results of the *Conjunctiv und Optativ* have met with general acceptance in America. This is so far true that it is proper to speak of the American work as a continuation of Delbrück's work and an application of his methods to Latin syntax. It is not necessary therefore to repeat the characterization of that method attempted above, but only to show what aspects of it have been especially emphasized.

The most important of these are the result of a failure to distinguish sharply between the work of comparative syntax and the work of Latin syntax. In consequence of this there appears in the work of American scholars an undue emphasis upon inferences as to the prehistoric stage and a tendency to make too large use of the methods of comparative syntax; that is, there is confusion both as to aim and as to method. The aim of comparative philology is the construction of hypotheses and the suggestion of possibilities which will be in harmony with the facts of the historic periods and will throw additional light upon the phenomena of the single language. This aim is primarily historical and directive. The aim of Greek or Latin syntax is to study processes and to formulate laws; it is primarily psychological and linguistic, and only secondarily historical. It is hazardous to attempt to interpret the aim and purpose of others, but it is difficult to resist the impression that the contribution which Latin syntax

may make to prehistoric syntax has occupied a place of undue importance in the work of American scholars. Accepting without reserve the categories of modal function which Delbrück has made for the Indo-European speech, the endeavor of syntacticists has been to discover survivals of these functions in Latin. Thus Hale has connected the future force of the subjunctive in certain sentence-forms with the primitive future, and Elmer would establish a function of obligation reaching back to the Indo-European stage. The emphasis placed upon this side of the work — a perfectly legitimate side in itself — has brought about a tendency to regard such connection with the earlier period as the most important part of syntactical work and as the ultimate and sufficient explanation of Latin usage. The inevitable result is a withdrawing of interest from the proper work of Latin syntax.

Of aims one must speak with some hesitation, but in regard to methods one may speak with more positiveness. By the necessity of the case the student of prehistoric speech must depend upon inference, since he has no contemporary data and can look only for somewhat general results. The nature of his problem compels him to run the risk of dealing with abstractions and with bare probabilities. But the student of Latin may and therefore should use a method which keeps closer to the facts. His work is one of observation and of accurate induction within narrow limits. The use of large functional classes, like the volitive, the potential, the optative, as the tools of investigation, when more precise formal classification is made possible by the possession of abundant data, is a considerable defect in method — in this case the result, apparently, of a

too complete adoption of the methods of comparative syntax.[1]

One other characteristic of the method of American syntax deserves special mention; it has been, in Greek as well as in Latin, conspicuously systematic. There is doubtless some danger in the use of tables and graphic schemes of syntax, the danger that they may become traditional and may lead to the ignoring of the irregular, the exceptional. Language is so hap-hazard, so complex, that the exceptional cases which do not fit into systems are the cases which deserve most attention and may afford suggestions for new discovery. But the dangers of formlessness and absence of system are still greater. Facts, if they are truly and fully apprehended, will in the end always group themselves systematically, and the emphasis which American syntax has laid upon system is a real contribution to the science.

[1] These remarks are perhaps liable to misconstruction. I certainly do not mean to take the position of undervaluing, or even of criticising, so monumental a work as Delbrück's Comparative Syntax, either as to its method or its results. But the methods of comparative syntax are entirely inapplicable to the syntax of Latin or of Greek. It is the results that are of interest to the Latin scholar. And even with reference to these he must exercise some reserve, not only because the science is still somewhat young, and many of its results not yet a part of the accepted doctrine, but also because the classical scholar must take them, if he takes them at all, in a rather uncritical way. The linguistic equipment of most Latin scholars, to speak frankly, consists of a knowledge of Latin and Greek, a reading and speaking knowledge of English, German, French, and perhaps Italian, and a fading recollection of Sanskrit. The ability to read the examples in a number of languages is a poor foundation for critical judgment, and the only part of this equipment that is of much value is the Latin and Greek. It does not follow from this that we must forego entirely the enlightenment which comes from finding parallel phenomena in another language, or in many Indo-European languages, but only that we must face our limitations and do our work where we are competent to do it. Otherwise we shall run into parallel grammars of Greek and Latin and other scientific anachronisms.

Dittmar's *Studien zur Lateinischen Moduslehre* opens with an elaborate discussion of Hale's *Cum*, and in its general outline so much resembles that book that it may properly be regarded as a continuation of the same method, in spite of the fact that in some details of treatment and in its results it is a protest against the prevalent views. The main thesis is that the confusions of modal syntax can be removed if the subjunctive be regarded in all its uses, either in independent or in subordinate clauses, as the expression of an attitude of mind which is described by the adjective *polemisch*, while the indicative in like manner expresses the *souverän* attitude. It is evident that this is a form of psychological *Grundbegriff* and that the book belongs therefore in the line of work in which the discovery of a fundamental meaning is the ultimate aim, but in many details the method employed is unusual. In the first place, it is not Dittmar's purpose to show that the polemic element underlying the subjunctive is its earliest meaning, though in a brief summary he expresses the opinion that this meaning was found in the Indo-European period, but rather to show that it is found in equal measure in all uses of the subjunctive from Ennius to Juvenal, substantially unchanged. He does not, therefore, deal largely in prehistoric speculation, but cites a considerable number of cases without much regard to chronology, and finds in each subjunctive a *polemisch* element, in each indicative something *souverän*. In the second place, the cases of the subjunctive are all (except half a dozen repudiating questions) taken from subordinate clauses. Whether this is because the polemic character of the subjunctive in leading clauses is regarded as self-evident or because Dittmar believes that the true character of the mode is

most apparent in the subordinate clause, is not stated. A third characteristic of the method is the arrangement of many of the cases, *e. g.*, the cases of *qui*-clause, in groups by form, not by function. There are thirty-six such groups under *qui*, nineteen under *cum*. But this is not followed out systematically; there are many more than thirty-six formal varieties of *qui*-clause, and the three groups of *ut*-clauses are still more short of completeness. But the beginning of a formal classification is worthy of note.

I have thus far followed the dominant school of syntax down to the present time. The characteristic of its method which connects the later work with the earlier in an unbroken line is the conception of a *Grundbegriff* as the goal of syntactical investigation. At the beginning of the century the fundamental meaning was sought in metaphysical or logical definition; under the influence of Bopp and Curtius and the comparative etymologists it was sought by analysis of inflected forms into their significant elements; under Delbrück's leadership it has been sought by psychological definition. The method of the search has varied, the object sought has been essentially the same.

In thus following down to the present time the leading school of syntactical method I have passed by much work which was going on upon slightly different lines. The greater amount of work, especially the dissertation work, of this period has been along the lines laid down by Draeger. A good illustration of its character is Dahl's *Die Lateinische Partikel VT*, Kristiania, 1882. In his treatment of the modes Dahl shows the influence of Delbrück, but the general scheme of classification is functional, more elaborate than Draeger's or Kühner's, as the narrower field permits, but essentially the same

in method. The book deserves mention in such a sketch as this merely as a reminder of the fact that no single school has completely occupied the ground; descriptive and functional syntax has held its own by the side of speculative and comparative methods.

Meanwhile two movements had begun within the general field of philology which have already influenced the methods and even the aims of syntax and which are destined to influence them still more deeply in the future. These are the modern school of phonetic science, often called the *Junggrammatisch* school, and the science of general linguistics.

The history of the neo-grammatical movement has been sketched in various places[1] and need not be attempted here. To an outsider the doctrine that phonetic laws work without exception does not seem to be so much a fundamental principle as an incidental doctrine, a step in the progress of the movement, raised into a somewhat factitious importance by the fact that it happened to become a point of attack and of defence. But it behooves one who looks at the question from the outside to speak with caution; the doctrine is at least illustrative of the shift of the center of interest from morphology to phonology. The three steps have been etymology, morphology, phonology. In the second stage the laws of sound-change were studied in order to explain forms; in the third stage forms were studied in order to discover the laws which had been at work in producing them. The effect of this shift of center upon syntactical method is indirect but strong. In the first place, it has to a considerable extent withdrawn interest and conviction from the earlier conception of

[1] *E. g.* Delbrück, *Einleitung in das Sprachstudium*, especially pp. 54 ff., Ziemer, *Junggrammatische Streifzüge*, pp. 1–29.

agglutination (cf. Delbruck, *Einleitung*, p. 55), and without actually proposing a substitute has led to the suggestion of various hypotheses which are not easily reconciled with any theory of agglutination, that is, of composition of significant elements. The scientific support which the teaching of Curtius had given to the explanation of inflectional forms by definition, by a *Grundbegriff*, whether psychological or metaphysical, thus falls away; the use of this term to describe the sphere of application of syntactical forms[1] is evidence of this. In the second place, the newer attitude toward forms and the laws of sound turns the attention from results to processes, to laws. Syntax has been mainly occupied with results, with the tabulation and description of the facts of sentence-structure; such attention as it has given to laws and processes has been vague and lacking in precision because it has been on too large a scale. The science of phonetics sets to the sister science an example of minute and patient observation, and one instance of the direct transfer of a method of study from phonetics to syntax will be mentioned below.

The second great movement of recent years in philology is the rise of the science of linguistics. It is the result of the work of many scholars[2] who have contributed to it from various sides, phonetic and psychological, and as the movement of the *Neugrammatiker* is gathered together in Brugmann's *Grundriss*, so the science of linguistics is summarized in Paul's *Principien der Sprachgeschichte*. The close connection be-

[1] Delbrück in Brugmann's *Grundriss*, III. 1, p. 81; Brugmann, *Indog. Forsch.*, V, p. 93, n. 2.

[2] Among them an American may with justifiable pride name Whitney of Yale.

tween the two movements is sufficiently attested by the fact that the lists of contributors to them consist largely of the same names. To a considerable degree the field covered is also the same, namely, the unconscious and automatic psychology of the production and reproduction of articulate sounds. The aim and method, too, are similar. The science of linguistics is interested in processes, in the process of speech-learning and speech transmission, in the accumulated variations which result in dialect, in the steps which separate the popular from the written language, and in all the forces and laws which bring about and control these processes. In these respects its methods would naturally exert an influence upon syntactical method like the influence of the new phonology, but greater. Both sciences suggest also the inadequacy of older classifications of the phenomena of language or their uselessness for the solving of the newer questions. Phonology cuts across the parts of speech, taking its illustrations indifferently from nouns or adverbs or verbs, and linguistics finds proofs of the working of analogy alike in sounds or word-forms or word-meanings; it is in part this disregard of distinctions which have been regarded as fundamental that made these sciences at first so confusing to the ordinary classical philologist. But the example is one which the syntacticist may well lay to heart.

These contributions to syntactical method are indirect, in the way of suggestion merely; but linguistics is concerned also with the conscious psychology of speech, with the train of thought which accompanies and is associated with utterance, and in this respect it approaches the field of syntax more closely. Between semantics and syntax it is not possible to draw a sharp

line, and the principles and methods of semantics as set forth, for example, in Bréal's *Essai de Sémantique* or in Darmesteter's *La Vie des Mots* are immediately available, with but slight change, for the uses of syntax.

The influence of the newer phonetics, of linguistics in general, and of semantics may be illustrated by a consideration of the methods of three books published within the last twenty years.

Ziemer's *Junggrammatische Streifzüge* (Colberg, 1883) first appeared as a program in 1879 under the title *Das Psychologische Moment in der Bildung Syntaktischer Sprachformen.* In the enlarged form a historical introduction gives a sketch of the neo-grammatical movement, and discusses the possible application of its methods to syntax. The body of the book treats of the psychological element in speech, discusses the nature of assimilation as it appears in syntactical forms, defines three kinds of syntactical assimilation, and illustrates them at length with many examples taken chiefly from the Latin. The book is thus a direct transfer of the methods and the aims of morphology to syntactical investigation; the laws of assimilation under the influence of analogy were discovered and worked out in the field of morphology, and Ziemer's purpose is to show that good results may be obtained by a like method in the field of syntax. But while the results are interesting and the explanation of many peculiar constructions is clearer than any previous explanation, the value of the book is in its method, in the fact that it does not aim primarily at rules for case-constructions or for the use of the subjunctive mode, but at the establishment of a law of speech which underlies case-construction and modal use alike. It directs the attention away from classifications and fixes it upon the working of

the mind of the speaker, suggesting thus a profounder syntax working in the sphere of causes.

The influence of this original and significant book has not been as great as might have been expected. Its merits were recognized by other scholars in the neogrammatical school, to whom the method, in its morphological applications, was already familiar, but it was perhaps too bold a departure from the ordinary method of syntax to meet with an immediate acceptance at the hands of classical scholars. Even Ziemer himself in his *Indogermanische Comparation* (1884) returned to the older method, analyzing the comparative forms into supposedly significant elements and deriving later uses from the fundamental meaning thus obtained, and no one has taken up the fruitful line of study suggested in the *Streifzüge*. For this method is capable of wide extension. Historical syntax consists in part in the tracing of relationships between different structures, in the determining of the influence of one mode of expression upon another, either in the way of attraction or of competition. But all this historical and genetic study of syntax is in danger of remaining vague and inconclusive, unless it is completed and fortified by the most minute and detailed analysis of the underlying psychological resemblances and differences which are the cause of relationships and competitions. Such analysis may be employed, as Ziemer has employed it, in wider fields.

Ziemer's *Streifzüge* may properly be connected particularly with the school of morphology to which he belongs, in spite of the fact that he often refers to Paul's *Principien* and uses, as is natural, the terms of general linguistics. In like manner Gutjahr-Probst, though he quotes and refers to the *Neugrammatiker*,

may be properly regarded as more distinctly an exponent of the influence of general linguistic science upon syntax.

His *Beiträge zur Lateinischen Grammatik* appeared in three parts: the first (1883) dealing with the verb, the second (1883) with particles and conjunctions, the third (1888) with *ut* in Terence (*und Verwandtes*). It is in the second and the earlier portions of the third part that the characteristics appear which make it worth while to mention the book in this sketch. These sections deal with the history of the subordinating conjunctions and particles. Since the fact was first recognized (by Lange and, in more detail, by Delbrück) that the subordinating function is an acquired function, little had been done in the way of precise study of the steps of this acquisition, at least in Latin. Kienitz' study of *quin* (1878) is cited by Probst in the bibliography prefixed to the second part, and O. Brugmann's *Gebrauch des condicionalen Ni* (1887) in the third part, but even now, though there are many useful contributions to our knowledge of conjunctions, there has been but little study of their early conjunctional history that goes beyond the very general principles laid down by Delbrück. The main contribution which Probst's work makes to syntactical method is, therefore, in its general attitude, in the author's perception of this large gap in our knowledge of the steps of the process of acquiring subordinating power. In his manner of approaching this question, also, Probst is, in general, guided by correct principles, for he emphasizes and to some degree illustrates the true linguistic ideas that, in the first place, a particle may start, so far as our knowledge goes, from a variety of applications and uses, not from some single fundamental meaning, and that the process

which is to be studied is a movement toward precision, not away from it. And, in the second place, he recognizes the general principle that a conjunction or particle acquires its meaning from the sentence, not the sentence from the conjunction. These two leading principles come from the science of linguistics, and it is their recognition which makes Probst a fair representative of the influence of linguistics upon Latin syntax.

As in the case of Ziemer's *Streifzüge*, the recognition which Probst's work has received has been chiefly from scholars of the neo-grammarian and linguistic schools, who looked primarily at the method. Students of Latin syntax, who were concerned chiefly with the results, have been much less favorable in their judgment. Some of the details of Probst's work will come up later for consideration; but it must be said that it contains some surprising errors of fact and of inference, *e. g.*, the statements that *quod* passed through an interrogative stage, that *an* acquired a special function in competition with *nonne*, that *enim* was originally interrogative; indeed, the whole theory of the interrogative sentence is incorrect. Such errors, however, should not prevent a recognition of the fact that in its fundamental principles the book will teach much which cannot be learned from the far more precise and careful work of Dahl or of Schnoor on *ut* in Plautus.

The third book which deserves mention as illustrating the influence of other branches of philology upon syntax is Ries's *Was ist Syntax?* Marburg, 1894, almost the only work of recent years except Koppin's programs, mentioned above, which deals at any length with questions of the method and theory of syntax. Its main thesis is that, as single words are studied with reference both to their form (morphology) and their mean-

ing (semasiology), so groupings of words should be studied with reference to their structure (formal syntax) and their meaning (functional syntax). The distinction between form and function is a very old one, and its application to sentences was suggested, as so many other developments of modern syntax were suggested, in Lange's paper (1852). Ries, however, while giving full credit to Lange, has much enlarged the subject and applied it with all the added light which the advance of semantics since Lange's time has thrown upon it. All this (the details are too well known to call for mention) constitutes a large and very direct contribution to syntactical method. So far as the syntax of inflected forms is concerned (case-construction and much of modal syntax), the laws which govern the change of meaning of single words apply almost without change, and the problem of the acquisition of subordinating force is, quite strictly, a semantic problem. The treatment of *ut* in a lexicon should be essentially the same as its treatment in a scientific grammar. A larger modification is necessary in transferring the methods of semasiology to the syntax of groups of words; meaning plays but a subordinate part in determining the form of words, but in the grouping of words meaning is the shaping and controlling force.

The three works last mentioned, embodying, respectively, the suggestions which syntacticists may receive from morphology, from general linguistics, and from semantics, may be said to be on the outskirts, or perhaps to be outposts, of syntactical work. The main current of work has kept somewhat closer to the lines of descriptive and statistical grammar, though it has been affected in varying degree by the influences of the other schools of philology. Of this solid and intel-

ligible work the articles and books of H. Blase may be taken as representative. They consist, beside the doctor-dissertation on conditional sentences in Plautus (1885), of the *Geschichte des Irrealis* (1888), the *Geschichte des Plusquamperfekts* (1894) and various articles in Wölfflin's *Archiv*. The method employed in them is characterized by its close adherence to facts; much of the work is descriptive and interpretive, with statistics in condensed tables and with careful observance of the local and stylistic peculiarities of the writer. An unusual amount of attention is given to late Latin and to the connection with the Romance syntax. The article on the futures and the perfect subjunctive in Wölfflin's *Archiv*, X, 3, starts from the state of things in certain Romance languages and traces this back to its origin in Latin. On the negative side the method is no less noteworthy. The *Plusquamperfekt* and the *Irrealis* both begin with the material in Plautus, and in all the work there is a complete avoidance of speculation or even of the simplest inference in regard to prehistoric syntax. The whole question of the fundamental meaning of the subjunctive is ignored, with all the related questions in regard to a supposed Indo-European origin of this or that usage. The discussion in regard to absolute and relative time, the most extensive if not the most important discussion in modern syntax of the verb, is briefly dismissed in a few pages of the *Plusquamperfekt*. In all this the connection of Blase with the work in the syntax of early Latin under the direction of Studemund is apparent; his method is in general that of E. Becker and Richter and Bach in Studemund's *Studien*. But while he thus ignores, apparently of deliberate choice, much of current work, he is not uninfluenced by the thought of the general science

of linguistics. The explanation, for example, of the Plautine *fueram* (= *fui*) is by a *Kombinations-Ausgleichung*, according to the doctrine of Ziemer.

The work of Schmalz in the revision of Krebs's *Antibarbarus*, and especially in the Latin Syntax of Vol. II of Müller's *Handbuch* is too well known to need description. In general, his method of treatment is like that of Blase, exhibiting the same tendency to avoid speculation and to keep close to facts. The purpose of the *Antibarbarus* is mainly stylistic, and the habit of close observation of stylistic peculiarities is carried over into the Syntax. The introduction, indeed, dwells at somewhat disproportionate length upon the need of distinguishing between the spoken and the written Latin and upon the individual and local peculiarities of authors, so that in the third edition only a few lines are given to the explanation of the system which is followed in the book. The object of the Syntax, also, — to serve as a compendium or exhibition of the accepted results of syntactical science, — tends to exclude theory, and in many parts, where no reasonably satisfactory theory exists, only a bare presentation of facts is possible. The result of these limitations is that, valuable as the work has been to syntactical scholars, it makes but slight contribution to the theory or method of syntax. The only novelty is the substitution of a formal classification of subordinate clauses, by the introducing word, for the prevailing functional arrangement. This was proposed by Jolly in 1874.

The foundation of the *Archiv für Lateinische Lexicographie und Grammatik* in 1884, and the inclusion of syntax within its scope, has brought together many syntactical articles. They vary somewhat in method, but there is a large enough common element to justify

a general comment without mentioning individual work, even that of the editor, Wölfflin.

1. There is little comparative or prehistoric syntax, little speculation, little consideration of fundamental meanings, and the influence of the methods of morphology and general linguistics is not great.

2. But there are many articles on the border-land between syntax and semantics, especially the "Was heisst . . . ?" articles.

3. Much attention is paid to local varieties of Latin speech, particularly to African Latin, and to the peculiarities of late Latin and the connection with the Romance languages.

4. Many of the articles follow single constructions through all periods, making perpendicular sections, so to speak, instead of following a group of related constructions horizontally through a single author or period.

5. The most noticeable characteristic is that which has been already noted in the work of Schmalz, the tendency to be satisfied, at least for the present, with recorded and unconnected observation. The journals of the natural sciences are full of such work, *e. g.*, in chemistry or natural history, and the value of it is unquestionable. But it is also evident that it is mere material until it is organized by theory.

The period which has been under survey in the preceding pages, covering a little more than a quarter of a century, is not easily summarized, yet certain lines of historical connection run through it, as I have attempted to show, and serve as a basis for understanding its aims and methods.

It has been, in part, a period of healthy variety. Perhaps the largest portion of it in bulk, if all doctor-

dissertations be included, is descriptive, and this portion varies considerably from the unconnected record of facts, such as may be found in the briefer notes in Wölfflin's *Archiv*, to the systematized and classified description in Dahl's *ut* or the papers in Studemund's *Studien*. Much of this description is given, of course, as a foundation for scientific induction, and is arranged with reference to that end. There has been also much functional study, the ultimate end of which is the more precise statement of a syntactical rule or the more exact determination of the means used to express a function like the causal or the conditional relation. Nearly all study of conditions has been functional. There has been also a considerable amount of speculative work, the result mainly of a desire to systematize the observed phenomena. But discussion of the principles of syntax has been almost wholly passed over. In this respect syntax has been remarkably conservative.

This variety in aim and method is, I have said, a natural and healthy variety. There is no single aim for such a science as syntax, and there is therefore no single method which can properly claim superiority at all points. Aims vary in importance, and the methods appropriate to them also vary, but knowledge is many-sided, and all aspects of it are legitimate. Descriptive syntax has by no means covered the whole field; of such an important subject as the relative clause we have still but a fragmentary and incomplete description. And the methods of descriptive and statistical syntax are still inexact; it is not possible to describe species by the present method so that single cases of the species can be identified beyond dispute. Functional study, also, has a legitimate place; it increases the precision of interpretation, and is often the best means of approach-

ing a mass of cases and of discovering formal differences. But it also offers many opportunities for improvement in method. Its categories are still too vague and sweeping.[1] And of speculation in its proper place, not as a substitute for knowledge but as directive of investigation, there must always be need. It is perhaps the highest, as it is certainly the most difficult and the most attractive, exercise of the mind in scientific work. But it must be controlled by knowledge of what has already been attempted or accomplished, lest it fall into the error of repeating in slightly changed form hypotheses which have been already suggested. This danger is, of course, common to all kinds of investigation, but the necessary vagueness of speculation makes it peculiarly open to it.

Through the variety, however, which has marked the period, there has run one dominant note. The power and brilliancy of Delbrück as an investigator, his immense knowledge and the clearness and persuasiveness of his presentation, which pointed him out as the natural co-worker of Brugmann on the *Grundriss*, have made him easily the first scholar of the period in syntax. Of either the results or the methods of his work in comparative syntax no one is competent to speak who is not himself a comparative philologist, but Delbrück has in his Greek Syntax set the example of applying the same method to a single language, and other scholars have in like manner applied it to Latin. My reasons for believing that the epoch which has been especially characterized by this method is approaching its conclusion have been

[1] See, for instance, the programs of Imme, *Die Fragesätze nach psychologischen Gesichtspunkten eingeteilt und erläutert* (Cleve, 1879, 1881), and compare the fruitful results there reached with the ordinary careless threefold division of interrogative sentences according to the answer expected.

suggested incidentally above, and may be put together here in a more formal way.

1. The method of explaining the meaning of an inflected form by means of a *Grundbegriff* is an unconscious survival of the logical or metaphysical view of language, which made definition the ultimate explanation. It received scientific sanction from the etymological system of Bopp and Curtius, which analyzed inflected forms into significant elements and suggested the substitution of a psychological for the metaphysical content of the definition.

2. It belongs to the earlier and looser period of the study of origins, when, in the first application of the comparative method to living organisms, biological science was sufficiently occupied with the tracing of relationships between species by finding or inferring a common ancestor. That method of study has long ago given place in biology to more exact methods and other problems, as it has in morphology, and as it must in syntax.

3. The permanent value of the method — and it is great — lies in its introduction of psychological explanation and in the emphasis which it places upon the historical method. These are indirect and suggestive, but it is now some years since any direct result in the syntax of the modes has been attained which commands general assent. Its continued use in Latin has brought out many new names for certain groupings of subjunctive usage — anticipatory, fictive, polemical, obligation, stipulation — and these have their value, which I would not underestimate, in bringing into clearer light the common elements in groups of usage, but they have not proved, and in the nature of the method cannot prove, historical relationships or contribute to the under-

standing of the problem of inflection. On the contrary, this loose genetic method tends to substitute vague phrases and vague references to an Indo-European origin for precise knowledge. The method is becoming barren of results.

To these indications that we are at the end of a period may be added some others more general in character. They are to be seen in the dissatisfaction of the general philological public with the vagueness and lack of intelligibility of syntactical work; in the increasing inclination to turn back to general principles, as shown in Koppin's programs, in Ries's book, and in the first part of Ziemer's *Streifzüge;* in the reaching out after new methods, illustrated by Ziemer and Probst and Ries; and perhaps most distinctly in the falling back upon simpler methods, upon description and statistics, in Wölfflin's *Archiv* and other work of the same school. These are indications which students of syntax are bound to note and to interpret.

New epochs in science come as the result of the injection of new ideas into the thinking of scientific students. The revolution is most striking when it is brought about by some single leader or by some one book, but it is quite as often a gradual change, the effect of many causes working together. Such influences are now at work upon syntax from the side of morphology and phonetics, of general linguistic science and of semantics. So far as one may venture to anticipate the course of syntactical thought, they indicate that syntax is turning away from genetic problems and from grammatical rules and will be directed to the discovery and illustration of the psychological phenomena which underlie the grouping of words, and to the investigation of the laws which have governed the process

of group-making. The method by which this research will be conducted will involve a return to more minute observation of the details of the process.

Such a change as this may be hastened and made more secure and regular by a discussion of the fundamental principles of syntax; it is in the hope of contributing to such a discussion that the following papers have been put together.

II

THE GROUPING OF CONCEPTS

THE psychology of speech[1] may be divided into two parts: first, the psychology of sound-production, which has to do with the reflex and unconscious action of the organs of speech, including the memory of such action by which sounds are repeated and in which they are associated and, so to speak, preserved; and, second, the psychology of the train of thought which consciously accompanies utterance and which speech is felt to express. It is with the latter, of course, that syntax deals, though not with all of it. So far as words can be separated for scientific purposes from the sentences in which they are used, their meaning belongs to semantics. Syntax may claim as its special province[2] on the

[1] The main points in this chapter have been anticipated by Wundt, *Völkerpsychologie*, I, 2, 234 ff., in pages which I read with mingled dismay and pleasure. But such unity as the papers in this book possess is dependent upon this chapter, and I have therefore left it substantially as it was written out some two years ago. Perhaps the fact that it is a venture of a philologist into the field of psychology will justify the repetition, as I had hoped that it would excuse the mistakes which I have no doubt made in an unfamiliar science.

[2] I have not cared to discuss here or later the delimitation of syntax from semasiology, though the question of distinguishing the meaning of a word from its function as an inflectional form might come up below (Chap. IX). The matter has, indeed, been so clearly treated by Ries that it may be considered to be settled.

psychological side only those concepts which find expression in and through the combination of words, and the fundamental question for syntax is the question as to the nature of these concepts. In order to understand them it is necessary first to trace the mental processes which precede, accompany and follow the utterance of a group of words.

Both thought and utterance, going on at the same time, are so rapid as to seem almost automatic. So far as we give attention consciously to the process, it is ordinarily rather to the process of utterance, to the selection of words, than to the selection of concepts. A hindrance or obstacle to easy speech seems to be a difficulty in the finding of words rather than in the finding of ideas. But the fact that thought also calls for selection and arrangement is apparent enough upon a moment's reflection, especially when the thought is somewhat careful, as in writing upon a serious topic. In such a case we begin with the general subject, which lies in the mind in vague and general form. The first step is the directing of the attention upon some special aspect, which is one of many aspects suggested to the mind by association, and the separation of this from the rest. It is not, however, a complete separation, for the mind retains a sense of the relation of the special aspect to the general topic. Then, as a second step, either some other special aspect is brought before the attention, or the aspect first noticed is in its turn subjected to a like process. The mind again selects from the concepts which are suggested by association one to which the attention is given, and this also is viewed apart from others and yet at the same time in relation to the more general concept of which it formed a part. This process of arrangement, by successive

analysis, will be carried far before the thought is sufficiently digested for expression in written words.

In this elaborate preparation of thought for speech three steps may be distinguished. First, there is an analysis of the germ-concept, by means of the fixing of the attention upon some single one of the concepts suggested by association. Second, the suggested concept is not so much separated from the germ as viewed in its relation to the germ; the mind is always conscious of the relation, and it is because of the nature of the relation that the mind selects that particular concept rather than some other. Third, there is through the whole process a more or less conscious reference back to the original idea, a comparison of the analyzed group with the original unanalyzed germ in order to see how far the result of analysis has corresponded to the preconceived idea. These three steps go on simultaneously, though in a long analysis the third process may be somewhat intermittent.

In ordinary experience the arrangement of thought is of course less orderly than this. The association may be aided by accumulated notes which disturb the regularity of the process, or the subject may be one which requires little analysis, like a narrative of events already connected by the order of their occurrence. In the still more rapid processes of conversation, where the thought is constantly diverted by the suggestions of others, it is quite impossible to follow the action of the mind into details. The interaction of associations from within and from without, the variety in our modes of thinking under different conditions, and the differences which result from the subject of thought all result in great variations in the arrangement of ideas. But the essentials of the process, namely, the existence of the thought

as a whole, as a germ-concept,[1] and the immediate analysis of it, seem to remain the same, and may often be detected by observation of our own thought preceding speech. We may, for example, in listening to another person, believe that we detect an error in statement or a fallacy in reasoning. At the first instant this is entirely vague, scarcely more than would find expression in the exclamation "Wrong!" Then we may become conscious of the nature of the correction or the counter-argument in a like vague way, that is, as a whole, unanalyzed. If the circumstances make interruption permissible, an impulsive person will often break in while his own thought is as yet unanalyzed, and will find himself for an instant conscious of what he wishes to say and yet unable to say it. At such a moment one may detect in his own mind a kind of whirl of thought, almost a mental dizziness, as the swift process of analysis goes on. Then the thought begins to clear itself and to find expression in words. Or it may be, if interruption is not possible and we go on listening to the speaker, that the germ-concept is lost and, as the phrase is, we "forget what we were going to say." So when we see a child doing something dangerous or otherwise undesirable, the impulse to interfere is at first no more than a willed negative, *ne* without a verb; then the process of analysis begins, if clearness demands anything more than a prohibition like *don't*. The germ of a question is in like manner often to be detected before analysis, at first in the form of a mere desire for information excited by a suggestion from without, and then associated with the circumstances or the speech which excited it. Many questions need but slight analysis; they consist of an interroga-

[1] *Gesammtvorstellung* is the term used by Wundt.

tive sign and of a phrase which refers to the source that suggested the question. An interrogative sentence which contains more than this is something more than a question, involving also assertion or argument. A narrative, especially a short narrative, is remembered as a whole and may be so recalled by a single phrase, as "P's whistling story" or Livy's account of the destruction of Alba Longa. Just so a picture may be remembered as a whole. The analysis which precedes the telling of a story is particularly simple and easy to follow because the association is one of mere succession and the effort of the mind in fixing upon the order of events is a familiar one. Even the briefest remarks or comments, uttered in the midst of conversation, may frequently be caught by careful observation at the instant before analysis, and we may detect the germ-concept and may be aware of some rapid process of thought which must precede speech, though it may be impossible to follow it in all its details.

The process of analysis is dependent upon association. It is through association that the mind passes from the original germ-concept to the separate concepts. Among the concepts thus suggested the choice of the one upon which the attention shall settle is determined by its relation to the germ or its relation to the general course of thought. Each concept which is singled out from the germ for special attention stands, therefore, in a definite relation to the germ, a relation determined by the line of association. And because each is related to the original concept, each is also related to every other and a concept-group is thus constituted, bound together by a network of mutual relations. All the elements of such a group are held in consciousness at the same time, though the attention is not directed upon all at

once. The group as a whole is consciously felt, with its relation to the preceding group and its associations reaching out toward the groups which are to follow. By them it is a member of a still larger group of groups. The separate concepts in which the analysis ends are also held in mind, and the attention is directed upon them in succession. And the relations also are present in consciousness, though less clearly and distinctly, serving to direct the analysis and to retain the sense of its unity.

If it be asked what brings the analysis to a close, the answer will be that speech may begin at almost any point in the process. The prohibition may be expressed by "Don't!" the question by "What?" or "Who?" The story may be introduced by "That reminds me," and in fact such phrases, which are attempts to speak before the analysis is complete, are very common in colloquial speech; thus *quid?* is used as an introductory question or *quid agam? quid faciam?* precedes a more detailed question. So a whole oration might be in an imperfect way expressed in a single sentence, "Catiline is dangerous," "Archias deserves citizenship." But ordinarily the process will go on until the analysis is complete enough to exhibit all that, to our thinking, was involved in the original germ. The aim and end are the same, the satisfaction of the desire to express in its details the concept which was originally in mind.

The process which I have been attempting to describe precedes speech. In its outline and in most of its details it must be completed before the words which are to suggest it to the hearer begin to be uttered. The effect of hurrying forward the words before the analysis is fairly complete is to make the sentence confused in its ending; this is one of the most frequent causes of

confused and inaccurate sentence-structure. But when the analysis is completed, the fitting of sufficiently accurate words to the grouped concepts is almost automatic. Because thinking is so generally associated with words, the analysis is instinctively directed toward concepts which have been before associated with words. These are the natural ends toward which the analysis moves, and when the analysis reaches this point, the words are already suggested. The only thing necessary, therefore, during utterance is that the concepts, grouped by their relations, should pass in succession before the mind, or, more precisely, that the attention should be directed upon them in the succession which their grouping suggests. This operation is so nearly automatic that the conscious activity of the mind may at the same time call up the next group and perform upon it the necessary analysis.

After a group of words is uttered, a reverse process, one of recombination, begins. As soon as the attention is withdrawn from the distinct concepts, they begin, as it were, to sink back into the unanalyzed condition. The sentence which is in process of utterance is held until it is finished, but the sentence which had been uttered just before is held in the mind less distinctly and the preceding sentence is still less clear. If it is recalled by an effort of memory, the words will probably be called up first and the concepts will be recalled by means of the words, or the general group-concept will be recalled and analyzed a second time. In a long speech, lasting for several minutes, the speaker will remember what he has said only in the most general way. The thought will lie in his mind very much as it was before the analysis and utterance, except that the fact that the groups have been once analyzed will

render a second analysis easier. It is in this unanalyzed or only partially analyzed form that any connected series of thoughts lies in the mind ready to be recalled. And as short sentences, prohibitions or brief questions, or short anecdotes or illustrations, may by a little self-examination be found to arise in the mind for an instant as wholes, so after they have been uttered in words they may for an instant be detected in the mind as wholes, undivided groups, accompanied by a sense of satisfaction, just as before utterance they were accompanied by a feeling of desire which called for satisfaction.

The three successive stages are therefore these: first, the group-concept is analyzed into a group of concepts with their connecting relations; second, the group in its analyzed form is clearly held in mind while the associated words are uttered; third, the group of concepts immediately begins to fade back into its unanalyzed form.

The action of the hearer's mind most nearly resembles the second and third of these stages. The uttered words excite in his mind the associated concepts with all their suggestions and implications of relation, and these he instantly begins to combine into a group, which, if the whole operation is skilfully performed, will be essentially the same as the unanalyzed group in the mind of the speaker. This is done so immediately and unconsciously that, if the attention of the hearer is fixed upon the thought, he will often be quite unaware of the analyzed elements and be conscious only of the result of the recombination, the group-concept. It is the power of performing this process of recombination rapidly and unconsciously which enables a practised reader to grasp whole sentences or even whole paragraphs at a glance; he dispenses with the laborious

analysis and by catching a word here and a word there is able to divine the group. Where the subject is unfamiliar or the language is foreign and only imperfectly known, the reader or hearer must perform the recombination slowly and carefully.

To some extent, also, the mind of a quick hearer or reader is at work upon the unexpressed thought, performing also, as does the mind of the speaker, an analysis ahead of the point of utterance and anticipating to some extent and tentatively the course of the speaker's thought. This enables the hearer to grasp the group of concepts, when it is suggested by words, to some extent as a whole, and still further lessens the amount of analysis necessary.

The psychology of speech has not hitherto[1] occupied a large space in the standard works on psychology, but some confirmation of these views, which are the result of an attempt to understand the basis of syntactical expression, may be had from the extremely interesting chapter in James's Psychology,[2] entitled "The Stream of Thought." The fact is there stated and illustrated that two elements are present in the succession of concepts which follow each other in the mind. Of these the more obvious consists of the more definite and, so to speak, concrete concepts. When one attempts to arrest the stream of thought, as, for example, in answer to the question "What are you thinking about?" the attention is likely to be fixed upon some definite object, — a thing, a person, an institution, an event. This will be the case even when the definite object is really quite secondary, when the thought was really fixed upon a question of duty or expediency. But a closer

[1] Before the appearance of Wundt's *Völkerpsychologie*.

[2] *The Principles of Psychology*, I, chap. ix, pp. 224 ff.

self-examination shows that such definite concepts are always connected by relations which form a part, and an important part, of the stream of thought. To these two elements James gives the names *substantive* and *transitive*. It is evident that the *substantive* concepts correspond in general to the separate and distinct concepts into which a germ-concept is analyzed, and that the *transitive* elements, which are also themselves concepts, correspond to the relations which bind the concepts into a group.

Speaking broadly, the substantive concepts, the separate concepts upon which the analysis comes to an end, are expressed in language by words, and the laws which govern their association with words make up the science of word-meanings. The science of word-combinations has to do with the meaning of the whole group and with the relations by which its parts are held together. The following papers will contain some illustrations of the ways in which these general characteristics of thought-structure are repeated in sentence-structure. Meanwhile some general observations are in place here, with reference to the emphasis which these facts may lead us to place upon certain general principles of syntactical investigation.

1. The unity of a concept-group is not something produced by the act of expressing it in words, nor is it in any way the result of the putting of words together. It is, on the contrary, antecedent to expression, and is an inherent element of thought. The various definitions of the sentence which imply that a sentence expresses the completion of an act of combination define the process from the wrong end; the sentence expresses the result of an analysis, and everything in it which binds the words together is the sign of the original

unity, not the means of producing unity. This is true also of sentences or verbs in the paratactic structure (see Chap. VI); the relation is not created by putting the verbs together, but is the reason for combining them into one group. The principle of first importance in following the growth of syntactical expression is to recognize the fact that all that finds expression exists first in thought and must be felt with some degree of distinctness before it can find any kind of expression.

All this justifies the use of the term semasiology and the application of semantic laws and methods to the association between the concepts of relation and the means of syntactical expression. But the semasiology of word-groups is more difficult than the semasiology of single words, both because the concepts are more shifting and evanescent, and because they are expressed by means so varied and complex as sentence-structure.

2. The importance of studying words in groups, which is often recognized, is further emphasized by what has been said in regard to the action of the mind of speaker and hearer. The isolation of a word for detailed study must be followed and corrected by a study of it in its true condition as part of a group. The fact that each concept exists for the sake of the group, that the speaker is endeavoring to express the group-concept and is using the analyzed group of concepts only for this purpose, makes it possible for him to use words with greater freedom; meanings need not be precise, because they are limited by the other concepts of the group. This applies to inflectional forms as well as to words. The precision which they seem to have is often due to the rest of the group, and they can therefore be properly interpreted only when the limitations which surround them are taken fully into account.

3. The relations between the concepts are dependent upon the associations between them, and these, when they are not purely accidental, depend upon the nature of the concepts themselves. The relation of cause and effect can exist only between objects in the same sphere of causation, not, for instance, between a cloud and a house; purpose implies personality, a time-relation implies a time-word. In other words, the meaning of words has much to do with syntactical expression. There is sometimes an apparent disposition to separate these two means of expression, single words with their meaning being put into one science, while syntax is treated as if inflection were independent of word-meaning, and as if the syntactical forms were shells which could be filled with any content without altering their character. This is, of course, the result of the perfectly proper effort to isolate syntactical expression in order to study it without the disturbance of anything foreign to it. But it is quite certain that syntax can be understood only when it is studied in the closest association with word-meaning and that a large field of work is opening out in this direction.

III

THE MEANS OF EXPRESSING RELATIONS

The means employed in language for the expression of the relations between concepts are in part the same as the means at the command of language for expressing the concepts themselves, and in linguistic discussions the two are often treated together without distinction. It is not, in fact, possible to draw a clear line of distinction. In general, single words correspond to distinct substantive concepts and the study of their association with such concepts belongs to lexicography and semantics. But when a relation, as a result of frequent use, comes to be clearly and vividly felt, it has itself become a concept, apparently much as any concept is formed from percepts, and may then be expressed by a single word — a preposition or conjunction — the study of which belongs alike to semantics and to syntax. Inflected words also have both meaning and function and, just as in Latin the stem is never found without an inflectional ending, so the meaning and the function always go together and are inseparable. Even the parts of speech have to do partly with word-meaning and partly with syntactical function, since the differentiation is brought about within the sentence in the effort to express relation. The verb does not differ from the noun in meaning only, but also in use. The

ordinary definition of the verb as a word which denotes action or state and of the noun as the name of a person or thing is evidently one-sided and defective, since a noun may denote action or existence and a verb-form may be the name of a thing. Another and truer distinction is based upon the use to which words are put in combination, and the differentiation of parts of speech is a means of expressing at the same time substantive concepts and concepts of relation. No definite line, therefore, can be drawn between the means employed in language for suggesting concepts and those which are at the command of language for the expression of relations. But it is nevertheless worth while to group together those characteristics of speech which have been more distinctly appropriated to the expression of relation, as a preliminary to the consideration of the process by which they have been adapted to such expression.

The musical elements of speech have to do chiefly with emotion, not with the intellectual side of speech. But a change of tone, indicating primarily a change of emotional attitude, may also serve to suggest in a very general way the relation of that which follows to that which precedes the change. This is especially clear in the utterance of a parenthetic explanation or comment, where the lowered tone and perhaps quickened time aid in suggesting the parenthetic and unimportant character of the thought. A change of tone will also accompany and partially express a change from argument to narrative or the reverse, and may thus vaguely suggest even the nature of the relation between two groups of words. The tone in which a conditional clause is uttered differs from the tone of a causal clause.

The pauses between groups of words are more directly

contributory to an understanding of the grouping of concepts. They are in origin physiological, that is, they are due to the necessity of refilling the lungs. If it were possible to conceive of thought as a perfectly homogeneous stream, as unvarying in quality as it is unbroken in its continuity, the pauses would occur at substantially equal intervals. But as thought is continually varying in quality and concepts occur in groups, the pauses in speech have been accommodated to the suggestion of groupings and occur not regularly but at varying intervals, so as to mark the fact that one group of concepts is completed and another is about to begin. Further, the length of the pause may indicate the size and complexity of the group, especially in very deliberate speech when the pause is utilized by the speaker for the analysis of the next group. The slight pause at the end of a clause, such as is indicated in printed language by a comma, suggests in conjunction with the raised inflection of voice the conclusion of a small group which is part of a larger group; the longer pause and falling inflection mark the close of a more fully completed group, and the end of a still larger group of groups is marked by a longer pause and a change of tone, as it is indicated in print by a new paragraph.

The pauses thus mark groups and suggest slightly the relations between them, though they do not indicate the relations within the group, and they illustrate well, in an elementary way, the process of adaptation; in their origin they have nothing to do with speech as a means of expression, but are the result of physiological conditions, yet they become one of the most fundamental means of indicating the nature of the stream of thought.

The three most direct means of expressing relations are inflection, single words, and groupings of words.

A natural starting-point for considering the nature of inflection would be its origin and, if there were a satisfactory and generally accepted theory upon this important point, it would simplify some of the problems of syntax. But there is no such theory. The explanation of inflection as due entirely to a process of agglutination, once a part of the orthodox philology, is quite certainly no longer accepted without serious question as to its value. The grounds for this change of opinion it is not for a syntacticist to discuss, but in general the theory appears to lack a good psychological basis, to involve an appeal to laws and forces other than those which are in operation in historic periods and to be too sweeping in its conclusions. Composition of some kind must be supposed to have taken place in order to account for some verb forms — *e. g.*, for *fueram* or the imperfect in *-bam* — but composition can scarcely explain all the phenomena. At any rate, the acquiescence of morphologists in the agglutinative theory, so far as acquiescence exists, is dissatisfied and agnostic, the result mainly of the fact that no substitute has been proposed, and the attempts[1] that have been made within the last few years to explain Indo-European inflection look in other directions. If this view of current opinion seems too unhopeful, it must at the least be said that syntax has at present little to gain from the theories and speculations in regard to the general nature of in-

[1] Bergaigne, *de conjunctivi et optativi in Indoeuropaeis linguis informatione et vi antiquissima;* E. W. Fay, Agglutination and Adaptation, Amer. Journ. of Philol., XV, 4, XVI, 1; Audonin, *de la déclinaison dans les langues Indoeuropéennes*, Paris, 1899; Greenough, in Harvard Studies in Classical Philology, X, 1.

flection. They are more likely to mislead than to furnish a substantial basis for syntactical work.

In these circumstances it is all the more desirable to get as broad and clear a view as possible of the nature of inflection as it appears in historical times. Looked at broadly, the most striking characteristic of Latin inflection is that it is not a system, but is on the contrary highly unsystematic. This statement may seem unnecessary, but the opposite opinion, held more or less consciously, underlies much of the recent syntactical work, especially in America. The impression of system comes, no doubt, from the way in which we learn the facts of inflection. For the purposes of teaching, the grammars very properly emphasize as much as possible such measure of system as Latin inflection permits, producing at the beginning of one's acquaintance with Latin the impression of a series of graded forms and meanings covering most accurately and completely the whole range of expression. But it is obvious that this is a false impression and, so far as we retain it, we are building upon a wrong foundation. Neither the forms nor the meanings are systematic. The perfect stem is not one, but is an irregular mixture of at least four different stems: the reduplicated (*cecidī*), the lengthened (*ueni*), the *s* stem (*dixī*) and the *-ui* form (*amauī*). Of these a few verbs have two (*parsi*, *pepercī*) and the rest have one or another termination for reasons which are apparently phonetic and have nothing to do with the meaning either of the verb or of the termination. The subjunctive has two formations (*dicam*, *amem*) with a mixture of optative forms, also without distinction of meaning. Or, taking the tenses in order, the present stem has many variations in form, some of them significant, others apparently without meaning; the im-

perfect indicative is an Italic formation; the imperfect subjunctive is entirely different and is of unknown origin; the future is either an Italic formation (*-bo*) or it is a modal form, different in the different persons (*-am*, *-es*). The personal endings are not more systematic; the first and second singular may be connected with the pronouns, but the second and third plural are inexplicable. To these illustrations from verbal inflection must be added the irregularities of pronouns and of the third declension of nouns, the immense variety of word-building suffixes and all the irregularities which have been brought together by Osthoff in his paper on *Suppletivwesen*. But it is not necessary to heap up evidence on this point. A glance at the facts of Latin morphology as they are presented in any full Latin grammar, or in Brugmann's *Grundriss*, or in Lindsay's "Latin Language," where large masses of facts which defy classification are brought together, furnishes convincing evidence that irregularity and absence of system are not merely occasional but are the fundamental characteristics of Latin form-building. It is the regularity that is unusual and exceptional.

The same absence of system appears in the meaning and use of inflected words. Forms do not have single meanings but many and varied meanings, which do not combine into a system but overlap one another. The present tense of the indicative overlaps the future (*quam mox seco? quid ago?*) and the past (historical present); the imperfect is often indistinguishable from the perfect and it has conative and inchoative uses which are really modal. The future is often used to express determination (*ibo*), thus confusing, as the imperfect does, the distinction between mode and tense. The perfect, from at least four distinct sources, has two

distinct uses, which, however, do not coincide with any of its forms. Tables of tenses of the indicative, in which *present*, *future*, *past* combine with *beginning*, *duration*, *completion* into a symmetrical scheme are far from the facts of language.[1] In the subjunctive the tenses are so confused and overlaid by the modal force that it is a question whether they may properly be called tenses. The scheme of case-constructions given, *e. g.*, in Draeger is so elaborate as to cover apparently all possible uses; but it must be remembered that this is a presentation of all case-uses of all nouns and pronouns. The range of a single noun is quite limited. To take an example almost at random, *tempus* is not used in the accusative of the place to which, in the dative of possessor, of agent, in the ethical dative, in the genitive subjective or the genitive of value or after *refert*, in the ablative of place, of source, of manner, of accompaniment, of price or of agent, to mention only some of the more common constructions. With reference to meanings, it might be said that almost any noun is extremely defective in its case-uses, just as many nouns are defective in case-forms.

The unsystematic character of inflection appears even more clearly in word-formation. The suffixes used in the building of words are so irregular that it is almost impossible to match forms with any system of meanings. For example, the terminations denoting *action* are given in a particularly careful grammar[2] as *a*, *io*, *ia*, *min*, *ion*, *tion*, *la*, *ma*, *na*, *ta*, *tu*, *er*, *or*, *ōr;* these are attached to stems of various kinds with a confusion of minor variations in meaning. This of course is not system; it is

[1] Compare the scientifically correct statement of Greenough in Allen and Greenough's Grammar, p. 291.

[2] Lane's Latin Grammar, § 212.

wholly unsystematic speech-material, not yet adapted to the expression of differentiated meanings. The suffixes which make diminutives may perhaps be taken to represent the nearest approach to regularity; they are few in number and the meaning is to some extent specialized, so that an interpreter with a theory can, by the exercise of some ingenuity, call them all diminutives. But the kind of interpretation which finds a diminutive meaning in all the diminutive forms, *e. g.* in Catullus, is in truth interpretation under the prepossession of a definition; a freer study would find much diversity of meaning in even the most regular of word-building suffixes.

These facts justify or even necessitate one inference in regard to the condition of Latin inflection in the earlier period for which we have no data. The strongest force in language is assimilation by analogy and this force tends toward regularity and to a certain limited extent toward system. That is, it does not bring about system on a large scale — the kind of system which starts from a single idea — but it produces similarity and regularity within certain ranges, and then again a different similarity within certain other ranges. This is fairly descriptive of what we find, for instance, in Latin case-forms. Within certain limits all nouns form their genitives in one way, with *-ae;* within certain other limits the genitive is formed with *-i;* a few words make the genitive in *-ius.* In this we recognize the working of assimilation, which does not produce system in the large sense, but limited similarities. From this it is almost necessary to infer an earlier condition of less uniformity, of greater irregularity. And an actual indication of what such a condition was we may see, with some reservations, in word-building. For in the word-formative suffixes we

have a general kind of variation, of which case-inflection is only a particular type, specialized by adaptation to a particular use and assimilated to a certain degree of regularity. Facts pointing in this direction might be accumulated to any extent. They can be interpreted in only one way, as indicating that a syntactical method, which presupposes an orderly development of meanings and forms from single starting-points, is fundamentally wrong. The condition of things which must be taken as the starting-point of functional evolution is a condition of irregularity and make-shift. Syntax must presuppose a variety of forms, some of definite and individual meaning, some of varied and shifting application; the functions of these forms did not fit together into a system, but overlapped and duplicated one another and at the same time left gaps unfilled by any form. Some nouns had many cases, others had few; some verbs had both optative and subjunctive forms, some had only one, some had neither. There was no perfect of *esse* and no present of *fui; melior* was not the comparative of *bonus* and *optimus* was a simple adjective with a meaning of its own. A long process of assimilation, of function as truly as of form, was necessary to produce the approximation to system which exists in the Latin of literature. It is upon a recognition of this fact that a correct treatment of the functions of inflected forms must be based.

The material for the expression of relation by single words is also various in origin. In Latin conjunctions are made from verb-forms (*licet*, *uel*), from nouns (*modo*, *dum*?), from adjectives (*uero*, *ceterum*), from pronouns (*quippe*, *quin; quod*, *quom; hinc — illinc* in responsion). Other conjunctions are probably from pronominal stems (*nam*, *enim*, *itaque*, *si*, *tamen*), and still others (*et*, *atque*,

-que, *at*), though they go back to so early a period that they cannot be traced to their source, are doubtless of similar origin. Of all of them it may be said or assumed that their conjunctional function is not inherent but acquired, the result of a shift of meaning. This is true also of prepositions, which express the relation of a substantive to the rest of the sentence. They were originally participles (*uersus*, *aduersus*, *secundum*) or nouns (*tenus*, *circum*, *foris* in late Latin) or adverbs (*citra*, *extra*), which gradually acquired the function of governing the substantive, that is, became in part or wholly the bearers of the relational concept. As in the case of a few conjunctions like *modo* and *licet*, the acquisition of the function of expressing relation is in some cases incomplete and the steps of the process may be followed in Latin. Thus *contra* is an adverb in Plautus, *coram* is an adverb till Cicero's time, *palam* is not used as a preposition before the Augustan poets, and *foris* has prepositional force only in very late Latin.

The shift of the expression of relational concepts from inflectional forms to single words (including the expression of modal and temporal meanings by auxiliary verbs) constitutes the greatest change that has taken place in the structure of language. It implies an increasing clearness in the realization of relations, a growing precision in the grasp of the transitive elements of the stream of thought — to use the terms which James employs. In general, association between a concept and a single word can be established only when the concept is distinctly recognized. It does not, however, follow from this that inflection may not express relation with great precision; the relation of subject and verb, doubly expressed in the case-form and in the personal ending, is even unnecessarily precise, so

that the case-inflection may be lost, as in English, without sacrifice of precision. But on the whole the change has been a movement toward more definite expression, and it therefore emphasizes what has been said above as to the vagueness of inflection as a means of conveying concepts of relation.

Thus far the means used in language for the expression of relation belong only in part to syntax; in part they lie within other departments of philology, especially within the sphere of semantics. But the grouping of words, to correspond to the grouping of concepts, belongs especially to syntax.

By the grouping of words is meant something more than the separation of words into groups by pauses. This, it is true, is a first step, but it serves only to mark the conclusion of one concept-group and the beginning of another. The more important grouping is that which brings the words together so that they are felt as a unity and are so grasped by the hearer or reader. The most evident illustrations of this are in idioms, *ut ita dicam*, *quod sciam*, *quid faciam?* In such brief phrases the separate words have partially lost their meaning and a kind of composition has taken place, by which the phrase has come to express a single idea, without sense of its component parts. At the other extreme, long relative clauses have indeed that kind of unity which every sentence has, but it is a unity which does not suppress the consciousness of the elements that compose it. The relative pronoun, the verb in the indicative, the dependent infinitive, are all felt in such a clause as distinctly as in an independent sentence. Between these extremes are many degrees of unification, more or less close. It is the peculiar province of syntax not only to understand the elements of such

unified combinations, but also, and especially, to treat them as unities, to see how far the process of unification has gone, to place them in the scale between the extremes of the idiomatic and almost compounded phrase and the loosely connected succession of words in a long clause.

These three modes of expressing relation will be taken up in more detail in the following chapters. Meanwhile two or three comments may be made bearing upon their general character.

The material for the expression of relational concepts is plainly, in most cases, not something invented for the purpose for which it has come to be used. It is perhaps true that no competent philologist would now consciously look at it in this way. The doctrine that language is mainly an unconscious product is firmly fixed and no one would venture to dispute it. Yet it is apparently true also that syntacticists, dealing, as they do, with the conscious train of thought which language expresses and using of necessity terms tinged with ideas of purpose, are especially liable to entertain views of their science which really rest upon the old idea that inflection was in some way produced for the purpose of expressing function. And as long as so much doubt still exists as to the true explanation of the origin of inflection, some ground will always be left for views of this character. In regard to all other means of expression except inflection, however, it can be made plain that the expressiveness, that is, the function, is the acquired result of a process of adaptation. The pauses in utterance, due to physiological causes, have been adapted by an unconscious process to the function of marking the limits of concept-groups. The musical elements, also purely unconscious in origin

and still in some respects beyond the control of the conscious will, have become highly expressive and are in some cases, as in the interrogative sentence, directly associated with a particular kind of concept, which they express just as clearly as an interrogative particle or the written sign of a question. The same thing is even more evidently, though not more truly, the case with single words. The adaptation of word-groups requires somewhat more detailed consideration (see Chap. VIII), but it is certainly in the main unconscious. If there is anything radically different in the history of inflection, it is a single and a notable exception to the general rule.

It may be said also in regard to the other means of expressing relation that a knowledge of their earliest uses, if it could be had, would not contribute largely to the solution of syntactical problems. It would push the problem back to earlier and perhaps to simpler stages, but the problem would still remain. It is undoubtedly worth while to discover all that can be known from any source about the early history of *dum* and *donec;* these conjunctions would then be advanced into the class of *modo* and *licet*, whose acquisition of relational function falls within historic periods, but the general problem would not thereby be solved. No knowledge such as can ever be reached by combination and inference will be of much value in regard to *et* or *atque;* it would not even direct the course of investigation in regard to these conjunctions. The origin of *an*, if it could be determined with considerable probability, would contribute but little toward the correct theory of the use of *an* in single and in double questions. The most valuable and interesting part of the history of this particle is fairly well known and would not be changed by any facts bearing upon its

origin and early relationships. As this is true of single words, so it is probably true also of inflection. For its own sake and for the sake of widening our knowledge, an intelligible and well-founded theory of the nature of inflection is much to be desired; perhaps no other set of connected facts in the whole range of philology call so earnestly for explanation; but no such theory will give us a definite and precise starting-point for the syntactical study of inflected forms. To think otherwise is in effect to hold in a rather bald form the notion that inflections were invented to express definite relations in a definite manner. The utmost that can be hoped for from such a theory is that it may afford suggestion and, if it be very clear, direction to our general method of approaching the problem. But over against this is to be set the other fact that the theory of the function of inflection must be worked out in the direct study of actual forms, not in the study of inferential forms belonging to a remote period.

To what has been said above in regard to the unsystematic character of the material for expressing relations may now be added a further consideration bearing in the same direction. Not only is inflection highly irregular in its origin and its application, but it is not even divided by a clear line from the other means described above, single words and word-grouping. The relation which is at one time expressed by an inflectional change is at another time expressed by a single word or by a grouping of words or only by time and tone. In the same language, at the same period and, indeed, even in the same sentence an auxiliary verb and a modal form may be used side by side to express in different ways the same modification of a verbal idea. Thus the sense of propriety is expressed in Plaut.

Pers., 123 ff., *cynicum esse egentem oportet parasitum probe: . . . soccos, pallium, marsupium habeat*, by *oportet* and by the subjunctive; in *Bacch.*, 139, *non par uidetur neque sit consentaneum*, the statement is modified to an opinion, first by the meaning of the verb *uidetur* and then by the potential meaning of the subjunctive mode. So an adverb with the present tense may be equivalent to the perfect tense; one sentence may be marked as interrogative by order and tone, the next by an interrogative particle. In the narrative style of Livy four successive acts, no one of more importance than another, may be expressed by a *cum* clause, a perfect participle of a deponent verb, an ablative absolute and an indicative. An adjective, a genitive and a *qui* clause may describe three entirely similar qualities. There are protases to which the presence of *si* is indifferent, and ablatives which have a preposition or express the relation without it according as the noun stands alone or has an adjective; there is absolutely no distinction of meaning. This criss-cross of various means used for the same end and of the same means used for widely different ends, this tangle of haphazard associations and useless duplications, cannot be interpreted by any theory which makes system and regularity its starting-point. The movement has been all the other way and the partial regularities of language in historical times are not the scanty survivals of a primitive system, but the indications of the partial victory of analogy and assimilation over the centrifugal forces working in language.

IV

THE PROCESS OF ADAPTATION — INFLECTIONS

The process by which the materials briefly described in the preceding paper have been adapted to the expression of the relation of concepts is in part direct and simple, but in part it is indirect and very complex. Of the musical elements of speech it has already been said that they are in themselves the result of reflex action and that they remain vehicles of emotion rather than of thought. But the heightening or lowering of nervous force which produces a more or less rapid utterance, on a higher or lower key, is an experience common to all and therefore immediately intelligible. A child or even a domesticated animal interprets these evidences of emotion, and they become at once, in a rudimentary way, expressive. It is but a step beyond this to the instinctive interpretation of change of time and tone, by which vague suggestions of the relation of the past thought to the coming thought are conveyed. Beyond this point time and tone and sentence-accent do not go except in conjunction with words and phrases; these carry the thought, to which the musical elements merely add an accompaniment of emotion. Thus certain words, like *honor*, *splendor*, *brilliant*, *noble*, *eager*, have a certain tone and time permanently associated with them; to use any other intonation is evidence of

irony or humorous intent.[1] The expressiveness of these means, too, is more consciously felt by the hearer than by the speaker; to the speaker they remain almost entirely reflex, except in studied speech like that of the actor or orator, but the hearer interprets them and receives their suggestions more consciously.

The adaptation of the pauses to suggest the completion of a group of concepts is equally direct and immediate, and calls for no comment beyond that given in the preceding chapter. But the pauses are more directly and explicitly suggestive of the grouping of concepts and have therefore a greater importance to syntax. An exact determination of the length of pauses and of the quality imparted to them by the tone of the last words of the preceding phrase would be of value in studying the gradual steps from parataxis to hypotaxis or in distinguishing different kinds of relative clause. But any such determination must be made in the spoken languages.

The more distinct means used in language to express the relation of concepts, inflectional variation of form, single words, and groupings of words, both because of their variety of origin and because of the greater precision to which they attain, have required a much longer and more indirect process of adaptation. The study of that process belongs peculiarly to syntax. The description of syntactical phenomena, which has occupied and must still occupy so much of the attention of syntacticists, is fundamental, but it is only a foundation. The determination of historical sequence, in

[1] This permanent association may become a means of differentiating two distinct meanings of a word, so that they become really different words. Thus *tell*, to be effective, to make an impression (every shot tells), has an intonation different from *tell*, to relate.

regard to which there has been much speculation and making of hypotheses, is a further step toward the understanding of the process, and, in so far as it has been precise and detailed, it is a necessary step. But syntax, both descriptive and historical, has been constantly under the influence of the older views of the nature of language and much of this preparatory work has led away from the minute and detailed study of the forces and laws under which inflectional forms have become expressive. It is therefore not possible at this time to formulate a system of syntactical principles, since these principles remain in large part still to be discovered. All that is now possible is to attempt to state the nature of the problem and to suggest some of the methods of solution.

The nature of the problem may be stated somewhat as follows: —

In regard to meaning, words are constantly gaining in precision. Through the associations set up in the process of expression the meaning of a word is being constantly deepened and enriched. The connotation is, in general, increasing and the denotation, that is, the range of application, is narrowing. But the process is not a perfectly simple one. While the range of undifferentiated application is narrowing, the number of special and differentiated meanings may be, and in general is, increasing. But such special meanings are not, so to speak, meanings of the word, but only meanings of the word in certain connections. The source of both movements is the same, and is indeed the source of all word-meanings, from the differentiation of parts of speech down to the most delicate shades of syntactical function; it all comes from the partial or complete transfer of group-meanings to members of the group.

There is an over-plus of unexpressed group-meaning and, in the process of use to express one of the distinct concepts of a group, a word acquires some elements of the partially undifferentiated meaning of the group. The acquisition may be general and permanent, or it may be only partial. In the latter case the association is not between the meaning and the word, but between the meaning and the group, including the word, or between the meaning and the word as a part of that particular word-group. Such a special meaning the word may carry with it to other similar groups, but not to any and every group. The general meaning of the word *pipe* is very simple, and its range of application is wide, but it has many special meanings which belong to it only in certain connections. In planning the plumbing of a house it is one thing, in connection with tobacco another; used while one is playing an organ, there is only one meaning, and in the Highlands *the pipes* is just as distinct a phrase as *the bagpipes.*

These general principles apply also to the means used to express relations. Inflectional forms have in a similar way taken meaning from frequent association with certain concept-groups. In so far as the associated meanings are simple and general, they are capable of wide use and may be said to be permanently attached to the form, but very frequently the transfer from the group to the inflectional form is not complete, and the meaning is then only a special meaning, which is attached to the form only when it is used in certain connections. The problem then is to determine how the meaning is shared between the inflectional form and the rest of the group, with what kind of group the special meaning is associated and what influences have

limited it; in other words, to determine and to localize the restrictive and specializing influences.

The problem of the acquisition of relational function by single words is in general of the same character, but with the difference that such words are often known to have had other meanings which have been partially lost in the process of acquiring the power of expressing relation. The problem must in such cases be extended to explain the loss, partial or total, of the earlier meaning, as well as the acquisition of special conjunctional or prepositional senses.

The study of word-groups is somewhat different. It deals with an earlier stage of the same process or with the process from a different side, with the dividing of the concept-group between the members of the word-group and with the retention of group-functions by the whole word-group. This is in effect a study of the analysis described above (Chap. II) and of the use of analytic means of expression, by which the power of expression is enormously increased without an inconvenient increase in the word-vocabulary.

Of the method by which these problems are to be approached three characteristics call for special mention. In the first place, while the general similarity of the problem as it has to do with inflectional forms, with single words or with groups of words should not be forgotten, the differences also must be fully recognized. In the second place, it is worth while to repeat what was said above, that it is not necessary to know the early history or the prehistoric conditions. It is the nature of the process and the forces at work that are the objects of research. In the third place, the problem has to do primarily with the specialization of meaning, by which precision of expression is brought

about. It cannot be solved by the study of general meanings alone, either the broad meanings of inflectional forms or the subordinating function taken as a whole. The fruitful field is in short sequences and within narrow ranges.

In the remainder of this chapter some of the influences which have tended toward precision of meaning in inflectional forms are stated and illustrated.

1. *Inflection and word-meaning.* — It is commonly assumed that whatever of definiteness an inflected form may have comes from and resides in the inflectional termination. I propose to put together here some considerations which seem to point in the other direction and to indicate that in many cases the meaning of the inflectional ending always remains vague, while whatever degree of precision the form may have is due rather to the stem-meaning. In other words, the word-meaning is a cause of definiteness in inflections, a force tending toward limitation and precision.

The suffixes which are used in word-building are of course similar in character to case-endings or personal or modal signs. The suffix *-eus* (*-eo-*) is said to denote material or, more cautiously, material or resemblance. But the meaning of *ligneus*, *aureus*, *ferreus*, is determined mainly by *lignum*, *aurum*, *ferrum*. The termination does no more than indicate the adjective character of the word, showing that it expresses a quality or characteristic of the stem. This is evident enough if one runs down the list of usages, from which it is apparent that many shades of meaning other than that of material are associated with this termination. The dependence of the ending upon the stem is also apparent from such words as *uirgineus*, where the termination does not indicate material because the stem is not

material. So the ending *-ensis*, as used with names of towns, *Veronensis*, *Carthaginiensis*, expresses of itself only the vaguest kind of relation to Verona or Carthage; standing alone, without a context to define it, the only precision of meaning comes from the stem. Or, from a somewhat different point of view, the most definite adjectives are those which are formed upon definite stem-meanings, *Ciceronianus*, *Veronensis*, *ligneus*, while adjectives formed from words of more varied meaning share the variety of their stems. Compare *ciuicus* with *modicus*, *Romanus* with *humanus*, *glacialis* with *socialis*.

It is perhaps less easy to recognize the fact that case-endings in like manner depend largely upon the stem-meaning for their apparent definiteness; the very fact that so much labor has necessarily been expended upon the categorical distinction of case-constructions tends to fasten upon the terminations a precision of meaning which they do not in fact have and to obscure the influence of the stem-meaning. But every instance in which a particular case-construction is found to be coincident with a particular set of stem-meanings is evidence that the stem-meaning is a determining element in the construction. Evidence of this kind is best taken from some standard work where the facts are brought together without prepossession. Of two such constructions as the ablative of time and the ablative of place it is scarcely necessary to say that the only distinction between them is in the meaning of the words. The termination is the same, but *die*, *horā*, *Kalendis* cannot be ablatives of place nor *glacie*, *mensā*, *Athenis*, ablatives of time. In these two ablatives word-meaning and case-meaning run parallel. So the cases which Draeger, I. 543, cites of the ablative of cause,

especially of the ablative of the inner motive, are almost all nouns of emotion or the like: *fiducia*, *gaudio*, *suspicione*, *imprudentia*, *amore*, *studio*, etc. The list which Kühnast, p. 164, gives from Caesar is *spe*, *studio*, *consuetudine*, *ratione*, *odio*, *expectatione*, and the indefinite *ea re*, *reliquis rebus*. Livy uses (Kühnast, p. 164) *fiducia*, *studio*, *caritate*, *cupidine*, *indignatione*, *ira*, *terrore*, *labore*, *metu*, *cupiditate*, *auiditate*, *taedio*. In other words, the ablative of the inner motive is the ablative of words which express an emotion or a state of mind which may serve as a motive. The ablative of military accompaniment (Draeger, 537) is an ablative of manner defined by the military meaning of the nouns, *copiis*, *milite*, *exercitu*, etc. The list of ablatives of manner from the writers of the classical period and later is (Draeger, I. 536) *ordine*, *ratione*, *uia et ratione*, *more*, *iure*, *iniuria*, *consensu*, *clamore*, *silentio*, *dolo*, *fraude*, *ui*, *uitio* (*creatus*), *cursu*, *agmine*, *uersibus* (*scribere*). Most of these words are limited to manner by their own meaning, a few only by the context, which Draeger feels it necessary to add in three cases (*uia et ratione*, *uitio*, *uersibus*) in order to make it plain that the ablative is one of manner. The genitive of indefinite value is of course confined to a certain class of words (*flocci*, *nauci*; *nihili*; *magni*, *tanti*), which are by their meaning capable of such use; there could be no genitive of indefinite value of *dies*, *gladius*, *puer*. The dative of advantage (*commodi*, *incommodi*) is almost wholly personal; the only exceptions in Draeger's list (432 f.) are *uae capiti tuo* (= *tibi*), *uae uostrae aetati* (= *uobis*), *reipublicae*, *patriae*, *prouinciae*, *pecori*, *capellis*. The ethical dative is strictly personal, and in general the dative is usually spoken of as a personal case, that is, this case is confined to a certain range of word-

meaning. These lists are given by way of illustration rather than of proof, but they are enough to call attention to the large degree to which word-meaning and case-construction run on parallel lines. To put it in a different way, it is by the meaning of the nouns alone that we are able to make many of the functional distinctions of case, *e. g.*, to call *gladio occisus* an instrumental ablative, *foro occisus* a locative and *nocte occisus* an ablative of time. The variation in case-meaning even follows variation in the meaning of a single word. Thus *nomen consulis* would be a possessive genitive, if *consul* designated a particular person, but it might be a genitive of apposition if *consul* stood for the office. The word *dies* may be used as an ablative of the degree of difference when it means a certain period of time, but it cannot be so used when it means daylight. All these indications point in the same direction. Most nouns, through the working of analogy and by virtue of a considerable range of meaning, have the complete system of six (or at least of five) case-forms, but no noun has a complete system of case-constructions. All are defective, many extremely defective, in their case-uses and the force which thus limits and specializes them is the word-meaning.

The connection between verb-meaning and modal or temporal use is less obvious, but it is equally certain. I have made elsewhere[1] an attempt to show that the meaning of the verb often influences its modal behavior. Where two or more verbs are used together, without distinction so far as modal force is concerned, a difference in stem-meaning often appears to color the mode. Thus Plaut. *Amph.*, 928, *ualeas*, *tibi habeas res*

[1] The American Journal of Philology, XVIII (1897), Nos. 70, 71, 72, especially pp. 282 ff.

tuas, *reddas meas*, is a wish, a permission and a demand, in spite of the identity of modal force. So in Plaut. *Cas.*, 611, *ducas* [*uxorem*] *easque in maxumam malam crucem*, the first verb expresses a permission, the second a curse. When verbs like these stand alone, without defining context, they generally define themselves by their own meaning; *ualeas* is regularly a wish, turned by custom into a farewell, *habeas* usually expresses a permission and *reddas* a command. The first person singular of the present subjunctive is rare, occurring in Plautus only about thirty times with all verbs but one, but that verb, *uelim*, is found more than seventy times, that is, more than twice as often as all other verbs together. Whatever one may think of the meaning of *uelim*, the frequency of the form can be due to nothing else than the harmony between the verb of willing and the mode of desire. More general indications pointing toward the influence of verb-meaning upon modal and temporal use are well known. Such are the peculiar pluperfects, *oportuerat*, *debuerat*, the perfects *fui*, *habui*, the indicative *optimum erat* in apodosis, and similar usages in which mode or tense and word-meaning unite to define the construction.[1]

The precise influence of verb-meaning upon particular modal or temporal uses is less easy to detect; the modal uses, and to a considerable extent the tense-uses also, are less sharply distinguished than the different case-uses. But a few instances may be given. The subjunctive in the indefinite second person singular is found almost always with verbs of mental action or

[1] Blase, *Geschichte des Plusquamperfekts;* Foth, *Verschiebung lateinischer Tempora*, in Böhmer's *Roman. Studien*, 1876, p. 243; Hultsch, *die Erzählenden Zeitformen bei Polybios;* Wheeler, Uses of the Imperfect Indicative in Plautus and Terence, in Trans. of the Amer. Philol. Assoc., 1899, XXX, 14 ff.

uerba sentiendi et declarandi.[1] The connection between certain kinds of prohibition and verbs of particular meaning is used as a basis for argument by Elmer, Studies in Latin Moods and Tenses, pp. 9 ff., 108 ff.

These are, of course, mere suggestions. Given briefly, as they are here given, some of them may perhaps seem to prove nothing and to suggest but little, but taken all together they will serve, it is hoped, to point out a direction in which investigation may prove fruitful and may in the end shed light upon the whole subject of the meaning of inflection. If evidence, sufficiently clear and in sufficient mass, can be brought together to show that in one and another case the meaning of the word has been one of the moving causes in giving precision to inflectional forms, then a step will have been taken toward an understanding of one cause which operated to give meaning to inflection in the beginning. If it can be shown, for example, that *ligneus* is simply the adjective form of *lignum*, that it does not necessarily mean *wood-en* but may mean *wood-y*, *wood-like*, and that it is only by a process of isolation, due to various causes, especially to frequency of usage, that it has come prevailingly to mean *wooden*, then it is only by adaptation, not by any original or inherent meaning that the termination *-eus* forms adjectives of material. So far as it may appear that only words denoting an instrument are used in an instrumental ablative, the hypothesis of an Indo-European instrumental case, with a termination attachable to all nouns, falls away as unnecessary. It can scarcely be supposed that *annus* or *uirtus* or *uictor* or *aquila* ever had a true instrumental case. It is altogether probable that the occasional instrumental uses of nouns which do not

[1] Amer. Journ. of Philol., XVIII, 386 f.

properly denote an instrument are the result of analogy and, if this is a correct supposition, the source and explanation of the instrumental case is to be found within the circle of nouns which denote an instrument, by studying the working of word-meaning upon suffix-meaning.

The kind of evidence needed to give support and clearness to these hypotheses is to be found in any one of three ways. First, there are many words which are actually defective in forms, where the non-occurrence of forms is so marked as to make it certain that these forms were not in use. This defectiveness must be due, in general, to something in the meaning of the word. It is the meaning of *memini* and *coepi* which leads to the use of perfect forms without a present and the same reason should explain the fact that inchoative verbs have the perfect of the simple verb, or, what is the same thing, no perfect. Analogy may have worked in the case of some of the *pluralia tantum*, but in most cases it is something in the history of the meaning. A study of the kind of material of which Osthoff has given a few illustrations in his *Suppletivwesen* would have the advantage that the fact of defectiveness is clear, while in other cases it is always difficult to say that a particular noun might not occasionally occur in almost any construction. A second line of investigation would be to follow the syntactical use of certain nouns or verbs or certain groups of nouns or verbs of like meaning, in order to determine the degree to which their meaning limits their syntactical use. Thus a study of a group of nouns denoting time or place, to find out the extent of their case-use, would lead to a better understanding of the time and place constructions and would illustrate the defective character of

case-usage. Probably an investigation of the uses of names of persons, names of official positions, words denoting instrument, would give good results. It is much to be desired that the modal use of certain verbs should be carefully studied, especially verbs which contain an element of will or desire, like *uolo*, *cupio*, *opto*, and those which bear some special relation to potential uses, like *possum*. The *uerba sentiendi et declarandi* would certainly repay special study. A third method would be to begin with the construction and to classify and study by meaning the nouns that are found in a particular kind of dative or ablative, *e. g.*, the dative of limit of motion, the ablative of cause. Some general statements in this direction may be found in all grammars, with reference to the locative forms and the accusative of limit of motion and a few other marked constructions.

2. The effect of *other inflectional terminations* is similar to the effect of word-meaning in narrowing and giving precision to inflection. The form *faciat* is not only in the subjunctive mode but also in the third person, the singular number, the active voice and the present tense. Each one of these characteristics limits and defines the others or, more exactly, those which are most inflexible, like person and number, affect the more impressible. The meaning of the mode is in this case by so much the most variable and shifting that it may be said that person, number, voice, and tense all affect the mode, so that the subjunctive has not the same force in the first person that it has in the second or third. A few illustrations will make this clear.[1] The

[1] These points are treated somewhat at length in the Amer. Journ. of Philol., XVIII, 276 ff. The illustrations given here are taken from that article and are all from Plautus.

subjunctive is in general a mode of desire. In the first singular, *maneam*, *taceam*, the desire is felt by the speaker in regard to his own action. But such desire is very rarely felt or expressed; usually it would take the form of determination, intention, etc., and in that case would be expressed by the future or by some periphrastic phrase. That is, the subjunctive and the first singular are almost incompatible in non-interrogative sentences and the use is rare. When it is found, the meaning of the subjunctive is almost always modified to meanings of necessity or opinion or obligation. In the second singular, on the contrary, the speaker expresses his desire in regard to the action of the second person, the hearer. The presence of the person whose action is desired is favorable to all the most direct forms of desire, command, advice, entreaty, permission and the like, and illustrations of the subjunctive as a jussive or volitive mode are almost always taken from the second person singular. This, of course, is the most frequently used person of the imperative, which further illustrates the effect of person upon a mode of will by the fact that it lacks the first person. On the other hand, in the third singular the speaker expresses his desire that a person not present should act, but he expresses it to a second person who is present, and the peculiarities of meaning in the third singular are due to the presence of the second person. For the desire would, in general, not be addressed to him if he were not in some way involved in the action. Either the speaker desires that he shall carry the command to the third person or that he shall permit or cause the third person to act. These implications are so plainly conveyed to the hearer by the very fact that he is addressed that they become, in effect, parts of the meaning of the

form, and when the action is further defined by parataxis, as it often is, the added verb is usually a definition or explanation of the action of the second person. Thus *euocate huc Sosiam: . . . Blepharonem arcessat* (*Amph.*, 951) is an undeveloped form of *euoca . . . aliquem ocius, roga circumducat* (*Most.*, 680); so *ueniat* and *iube ueniat;* in the same way *accipiat* means "see that he gets it," and might have been more fully expressed by *fac accipiat*, as *adeat, siquid uolt.* || *siquid uis, adi, mulier* (*M. G.*, 1037) is parallel to *sine mulier ueniat* (*M. G.*, 1244). A difference in number also affects the mode. The first plural, which includes the speaker and the hearer as actors, is much more frequent than the first singular, but is quite narrowly limited in meaning, since it can have no meaning which is not common to both the first person and the second; this leaves only a narrow range of meaning and the narrowing is the direct result of the influence of person and number together upon the mode.

The effect of tense upon modal meaning is not so easily seen, since the tense-force in the subjunctive is much less direct and clear. It appears, however, in the small extent of use of some of the tenses, especially the pluperfect, in independent sentences. In Plautus, out of about sixteen hundred instances of the subjunctive in independent sentences, only seven are in the pluperfect and nine more in the passive with perfect participle, which is in effect an adjective. The pluperfect subjunctive is, in the main, a tense for subordinate clauses. In the imperfect there are about twenty cases in Plautus of the subjunctive of desire (hortatory, jussive, volitive, etc.). They are chiefly in the second person singular. In this person and number in the present tense the most direct forms of desire are ex-

pressed, command, prohibition, entreaty, permission, demand, obligation. But most of these forms of desire are possible only in present time and with reference to the future; they are almost all incompatible with the idea of past time, which the imperfect distinctly expresses. The only one of them that is consistent with past time is the idea of obligation; the imperfect second singular therefore retains this one meaning out of the variety of meanings possible in the present tense. So Plaut. *Merc.*, 634, *requaereres, rogitares*, "you should have looked for her, have asked questions;" *Rud.*, 842, *quin occidisti extemplo?* || *gladius non erat.* || *caperes aut fustem aut lapidem*, "You should have taken a club." In such cases the fact that the form is thrice inflected — for tense, mode and person — gives to it a considerable degree of precision, the weakest or most variable element, the modal meaning, yielding to the more inflexible personal and temporal meanings.

The limiting effect of the meaning of one inflectional termination upon the meaning of another is evidently narrower in its range than the effect of word-meaning. It cannot have much force in the noun-inflections, since the only doubling there is in case and number, the gender being unimportant. There are some ablatives, *e. g.*, of manner, which are confined mainly to the singular, but this is like the confining of abstract nouns mainly to the singular. It is not unlikely that a modification of the meaning of some constructions might be observed, if the singular and the plural were carefully compared, as abstract nouns are usually modified in meaning when they are used in the plural. But, in general, this kind of modification appears most clearly in verbs and especially in its effect upon the meaning of the modes. There it may be most fully observed,

and its effect in the production of distinct and well-marked meanings is most interesting.

3. *The context* is a third limiting and defining influence tending to give precision to inflectional forms.

By context is meant ordinarily the words which precede or follow a particular word within a group. This is a sufficient definition from the word-side of language. From the psychological side more must be included, and the word context is perhaps too narrow. It should include all the circumstances attending the speech, the occasion which called it forth, the relation of the speaker to the hearer, the emotional tone, the nature of the general topic of conversation. The fact that all these attendant circumstances in part determine the choice of words by the speaker and even more directly interpret them to the hearer is well known. They are directive influences, aiding the mind of the hearer to the selection of the right concepts. But selection and interpretation are in part the result of exclusion. The fact that the topic of conversation is of a certain kind excludes from the attention all concepts not connected with that topic or that general range of concepts. It is this selective force of circumstances which enables the hearer to understand a word in the particular sense in which the speaker meant it, so that single words may have the large range of meanings given in any English dictionary and yet may be used without any considerable danger of confusion. It is a reasonable inference to surmise that it was in part through the influence of such limiting forces that words acquired definiteness of meaning.

The same line of reasoning is equally applicable to inflections, though the applicability has been less freely recognized. With inflections also, case-forms and mode-

forms and tense-forms, a like exclusive and selective influence is exerted by all the circumstances accompanying the speech, and to a considerable degree the definiteness which seems to attach to inflections is in reality the result of these more general causes. The question *quid agam?* is in itself vague, both as to the meaning of the words and as to the modal meaning, but it begins to assume a more precise meaning when the circumstances in which it is asked are supplied. Addressed by the speaker to himself, in soliloquy, it is an expression of uncertainty which might be expanded into *nescio quid agam;* addressed to another person it may be a real question, varying again, though within narrower limits, according to the circumstances. If the occasion is one in which the speaker really desires advice, it means "What do you think I had better do?" If the hearer is in need of immediate help, it means "What do you want me to do?" If the speaker has already declared his inability to act, that fact, aided by the appropriate tone and inflection, limits the meaning to a rejecting exclamation, "What can I do?" But it is evident that these various meanings are not localized in the modal termination; it is not the subjunctive mode which gives these meanings or some one of them to the sentence, but, roughly speaking, the sentence which gives them to the subjunctive. To reason in the other way is to reverse the whole relation of thought to speech.

The influence of surrounding circumstances is perhaps not stronger, but is certainly more distinct, when they are of such a kind as to be expressed in words. Of these the form of the sentence is one of the most interesting. It does not greatly affect case-syntax, but the meanings of modes and tenses are often largely determined by it. The most obvious illustration is in

the subordinate clause, where the mere fact that the whole group is subordinated excludes all the most direct kinds of desire, as it excludes almost completely the stronger mode of will, the imperative. In the subordinate clause, therefore, subjunctive forms are of necessity confined almost entirely to other functions and become in the end signs of particular kinds of subordination. The modal meaning yields to the more determining subordinating meaning.

The same general effect is produced when a subjunctive form is used in an interrogative sentence, especially when the first person singular of the present tense is so used. This form, *faciam*, *dicam*, is but rarely used in non-interrogative sentences, as has been said above, because in such sentences the speaker, the willer and the actor are all united in one person; this is a rare situation and when it occurs the subjunctive force is always considerably modified. But in questions the speaker asks in regard to the desire of the hearer; the speaker and the actor are one, but the desire is felt by another person, the hearer. The question *quid faciam?* in its fullest expansion means "What do you want me to do?" This situation is common and natural, and it favors the use of the subjunctive forms. In such questions, therefore, the more direct and usual meanings of the subjunctive reappear, so that *faciam* in questions really corresponds to *facias* in non-interrogative sentences rather than to *faciam*. The special forms of the *quis*-question also illustrate the effect of context upon the meaning of an inflected form in some curious and instructive ways. Questions with *quomodo* and the first singular present subjunctive are almost always repudiating, implying a negative like *nullo modo*. This sweeping implication of impossibility

we most easily express by attaching it to the modal form and translating, *e. g.*, *quomodo ego uiuam sine te?* by "How *can* I live without you?" That this suggestion was to some extent felt in the Latin appears from the fact that *posse* is sometimes used in such questions (Plaut. *Pseud.*, 236, *quonam uincere pacto possim animum?*). Questions with *cur* (*quor*) and the subjunctive are argumentative, because they question the motive of the speaker, often with the implication of repudiation. Thus *cur ego adflicter?* becomes a question as to the justice or propriety of the course of action recommended and this sense of obligation attaches itself to the mode; we translate "Why should I . . . ?" Even a variation in the case-construction of the interrogative word may give a color to the question which seems to affect the meaning of the mode. When *quid* is the direct object of the verb as in *quid faciam? quid agam?* the question is either in regard to the desire of another person or it is in soliloquy and deliberative, but when *quid* is the accusative of compass and extent and means "why?" the question is almost always repudiating, and the mode has the meaning of obligation or propriety, as with *cur*. In all such cases as these the apparent meaning of the mode varies with its surroundings. The context becomes a limiting and selective force, operating just as other inflectional terminations operate, to exclude a considerable number of the possible meanings of the inflected form. The meaning which the context favors then predominates, and if the combination of that particular context with a particular form of the verb is frequently used, so that it becomes a standing combination, the meaning becomes permanently attached to the group and, in particular, to the inflected form.

This principle, that inflected forms should be interpreted with their setting, is applicable to many combinations of words. Thus the presence of *potius* and of some other comparatives, perhaps of any comparative, is favorable to potential uses of the subjunctive. The presence of the negative has a similar effect. Adverbs of time often greatly influence the tense-force (*iamdudum* with the present). The order of clauses may be of great importance; a clause which follows a very distinct and detailed main sentence will be determined and, as it were, anticipated by that sentence, but if it precedes the main clause it may often in its turn form the setting to which the following sentence, even though it be grammatically independent, must accommodate itself. In all such cases the meaning of the inflected form (mode or tense) will be to a considerable degree affected by its context.

Within narrower limits the immediate context influences case-constructions. The genitive, which has already been used to illustrate the effect of word-meaning upon function, may also be used to illustrate the influence of the context, for every genitive, when it depends upon another noun, is defined by the combined meaning of its stem and of the noun upon which it depends. This is in part recognized by the employment of the meaning of the governing noun as a part of the definition. The partitive genitive is the case of a noun denoting a whole depending upon a word denoting a part; without the latter portion it would be impossible to define the partitive genitive. In defining the objective genitive, also, it is usual to add some statement about the governing noun, that it must denote action, agency, feeling, or that it must have verbal force. It is by such characteristics that we recognize the case

as objective. The genitives depending upon adjectives have no other definition than that which comes from the governing word, and the genitives which depend upon verbs are not only defined in a general way by the fact that the governing word is a verb, but are also subdivided according to the meaning of the verb — verbs of valuing, *refert* and *interest*, judicial verbs, impersonal verbs of mental distress, verbs of memory, verbs of participation and mastery, verbs of fulness and want.[1] The conclusion drawn from this state of things, by all who are not involved in the logical network of the localistic theory of the cases, is that the genitive is a grammatical case, but the matter should be pushed a little further. The genitive is a case of the vaguest possible meaning in itself. Its termination has less definite meaning than most of the adjective terminations, which are vague enough. The ground upon which it is possible to distinguish genitives and to make a dozen or more of categories, sufficiently well-marked, is not something in the nature of the case or in the meaning, either original[2] or acquired, of the termination; it is the meaning of the two words which are brought into relation that defines the nature of that relation. Language does not go beyond this because no more precise definition is needed. Phrases like *pars militum*, *aliquid boni*, *pondus auri*, *nomen amicitiae*, *ira deorum*, *fugitans litium*, *fessi rerum*, carry their own definition with them when the meaning of the two words is known. Any difficulty that is felt in placing

[1] This list is from Lane's Grammar, §§ 1271–1294.

[2] In Bennett's Grammar the attempt to trace constructions to some original or primitive meaning is carried out more elaborately and more sweepingly than in any other Latin Grammar. But of the genitive Bennett says (App. p. 177), "There is no one type from which the others developed, but all of the varieties . . . are equally primitive."

a particular case in a particular category of subject, object, part, value, possession, is not a difficulty in language, for it would remain if the phrase were translated into English, but is due to the vagueness of the definition of the category and the inherent difficulty of classifying modes of thought. It is at bottom a logical difficulty.

There is no other case in which the influence of the context is so obvious and so varied as it is in the genitive. The nominative is plainly a case-form whose termination has no other purpose (if we set aside for the moment the secondary indications of number and gender, the latter, at least, an acquired function) than to show its relation to a verb. It does not indicate that it is the actor, for often the subject is not the actor. It is purely grammatical. But the relation to the context is in this case so simple that it does not show the interesting variations which appear in the genitive. The same thing is true of the accusative, which, besides, owes some of its definiteness, as in the accusative of time and space, partly to the meaning of the noun itself, as well as to its context. The various meanings of the ablative are still more largely due to the word-meaning. But whenever a case-construction is defined in part by naming the kind of verb upon which the noun depends, it must be said that the meaning of the construction is due in part to the context. Of this kind are the dative after verbs of pleasing, favoring, trusting, after verbs compounded with certain prepositions, the double accusative after verbs of naming and calling, the ablative after *utor*, the genitive after verbs of remembering. In all these constructions the meaning of the word itself may influence the case-meaning; but the influence of the context is the stronger.

And, of course, analogy here plays a large part, so that it is always possible that the explanation of a particular case-construction is not to be found in itself, either in its word-meaning or in its context, but merely in its likeness to some other word or words with which the construction originated.

It was said above that adjectives are determined in their meaning largely by the meaning of the stem upon which they are formed. This is true of the general range of meaning. The widest limitation and definition comes from the termination, which defines them as adjectives; within this field they are still further restricted by the meaning of the stem; the greatest degree of precision is due to the context, to the substantive which they qualify. The meaning of an adjective of color, *e. g.*, *purpureus*, is the particular shade which the speaker has consciously in mind at the moment when he uses the word and which he is able to suggest to the hearer by the use of this particular adjective. Of the various elements which go to make up this particular meaning that which is suggested by the termination is the most vague, that the word is an adjective and describes a quality or characteristic; the meaning of the stem, from *purpura*, *πορφύρα*, still further limits it and gives precision and body to its meaning. But it is still capable of a very wide range of meaning, so wide that of itself it would fall far short of suggesting any definite shade of color to the hearer. And this would really be the case if the speaker were describing an object unknown to the hearer or an object of varying color. We do not know the color of a *flos purpureus* nor whether it was a thistle or a rose or a poppy; we do not know the shade of the *purpureus pannus* except as we may be guided by the fact that

it was a piece of cloth and therefore dyed. It is only when the object is known that *purpureus* carries definite suggestion, of rose-color, of a blushing cheek, of blood, of poppies, of wine, of ripe figs and even of lettuce and of the sea roughened by the wind. Of itself the adjective is sufficiently vague to be used of any of these objects, but when used with one of these words, *rosa*, *merum*, *ficus*, in the context, the meaning has all the precision that the color-sense of speaker and hearer can perceive. The adjective *uirgineus* was used above to illustrate the fact that the material meaning of *aureus*, *ferreus* is not given by the termination, but by *aurum*, *ferrum* as nouns of material. It might be further said that the context in which *uirgineus* stands excludes the idea of material and gives to it other meanings, *uirginea figura*, *forma*, *uirgineus pudor*, *decor*, — meanings which may be still so vague as to need the definition of the more remote context, as in *uirginea ara*, *uirgineum bellum*.

In what has been said thus far the word context has been employed chiefly in the usual sense, to denote the word or words which precede or follow a particular word. From the psychological side the meaning of context is somewhat different, and a consideration of it from this side may shed some further light upon the problem of the extent and manner in which context affects the meaning of inflection.

No concept arises in consciousness alone. The larger concepts, which require analysis before they can be adequately represented in words, stand in relations to similar preceding and following groups, and the more definite concepts which are the result of analysis come into consciousness already fringed about with a network of mutual relations. It is only by a difficult process of

abstraction that they can be freed from such associations and isolated. In the ordinary processes of thought preceding speech each concept is part of a group, exists for and in the group and has no other end than the putting into clearer light of some aspect of the group. Grammatically it is correct to speak of an adjective as modifying the noun, but psychologically the adjective and the noun are but two related elements of a group-concept which is a unity, not a compound. The phrase *statua argentea* comes into the mind as a whole and could perfectly well be represented by a single word, if that particular idea were often enough thought of. The two words therefore stand in the most intimate relation to each other, not one modifying the other, but both together expressing a single concept and dividing between them the function of expression. Each therefore limits the other, neither is intelligible without the other. So of two substantives united by some grammatical bond like the putting of one into the genitive, the relation is mutual because both are parts of a whole. Phrases like *gaudium certaminis*, *militis gladius*, *furor animi*, *finis laboris*, *causae rerum* are single concepts, so felt by speaker and hearer, though for the purpose of precise expression no single word exists which will suffice and a slight analysis is necessary. But because they are elements of a whole they are intelligible only in their mutual relation and that relation is intelligible only when both elements are taken into account. For this reason no genitive can be understood or classified without a knowledge of the word upon which it depends grammatically, that is, of the other half of the concept. Such genitives as *flocci*, *tanti*, are not exceptions to this principle, because their habitual limitation to a particular use makes it easy to supply the context.

In larger fields, also, when the group of concepts is more complex, the same principle holds. Each concept is what it is, not by itself but because it is a part of an analyzed whole, and it is not comprehensible except when it is thus viewed, modified and colored by its surroundings. The total concept-group is never so perfectly analyzed and so precisely matched by words and by inflectional forms that it is possible to say that this concept is expressed wholly and solely by this one word or form, and that concept by another word or form. This is perhaps obvious enough, but the application of it to syntax, the extent to which the syntactical relations are dependent for their expression upon the context and, therefore, the degree of vagueness inherent in all inflection, has not been fully recognized.

The lines of work which this principle suggests are obvious and have been mentioned above. Wherever it is necessary in defining a case-construction or a modal or temporal use to do so by stating the kind of word upon which the case depends or the kind of sentence in which the modal or temporal use is found, that fact is of itself an indication that the function is not expressed by the inflectional form alone, but is also in part a function of the group. The duty of the syntacticist is to determine as nearly as possible how far the function has been shifted to the inflectional form, how far it is expressed by other members of the group, how far it is still unlocalized and, in each case, why. In other words, the most elaborate possible analysis of the context is here suggested as a means of understanding more fully just what is the office of inflection. In one respect the influence of the context upon the meaning of words or of inflectional forms differs from the influence either of the word-meaning or of the secondary in-

flections; these are more constant in their effect, while the context changes. The context therefore not only tends to give precision of meaning, but also tends to bring about a shift of meaning. The latter tendency is not essentially different, however, from the former; in either case the context defines and fixes an occasional meaning so that it becomes, when the word is used often enough in the same setting, a fixed and recognized meaning. Such a process is usually nothing more than a change of emphasis from one element of meaning to another. The fact that each word represents only a part of the total meaning of the group and that each concept is to a considerable extent defined by the other concepts of the group, makes it possible for the speaker to choose somewhat freely among the words associated with a particular concept. He may select a word of a particular coloring, poetical or humorous or colloquial. It is this possibility which allows a poet to choose a word of a particular metrical value or a word charged with imaginative suggestion. The reader grasps the thought in groups and, unless the freedom of selection be pushed to an extreme, as it sometimes is, he is rather stimulated than confused by the novelty of the words. Or the speaker, aiming simply at clearness and precision of expression, may select a word which has as a secondary element of its meaning the exact concept that he desires to express, and he may do so in spite of the fact that the dominant element is something different. For the other concepts of the group, that is, the context, so fix the tone of the whole that the dominant element will be excluded and the only possible meaning will be the one which the speaker desires to express. For the moment, the secondary element becomes dominant and the dominant element

becomes secondary; a shift of meaning has taken place. To make the shift permanent it is only necessary that the word should be used repeatedly in the same context. Under the influence of this kind of process, which may vary considerably in its details, the meaning of words is constantly changing. The only difference between the change of word-meaning and a shift of function of an inflectional form is that the latter is much the easier. There are two reasons for this. The first is that the relational concepts which find their expression in inflection are less stable, more evanescent, than the substantive concepts which are associated with single words. If in some cases the association becomes fixed, in many more it remains always vague and liable to shift. The best evidence of the unstable equilibrium between relational concepts and their expression in inflectional forms is the extreme difficulty, not to say impossibility, of defining a case or a mode. A second cause which renders the meaning of inflectional forms more unstable than the meaning of words is the ease with which such forms are made under the working of analogy. Owing to this cause many forms which were not in actual use had what might be called a potential existence. They would be, for example, forms which were excluded from actual use by their stem-meaning or by secondary inflections. An instrumental termination, once fixed in use, would be extended by analogy to other words which were incapable of a precise instrumental meaning, as to the names of persons, or a locative termination would be capable of attachment to abstract nouns. Forms thus made, or rather capable of being thus made, would not be in actual use as instrumentals or locatives, but would be speech-material ready for use in meanings approaching the locative

or the instrumental. With them a shift of meaning would be not only easy but really inevitable.

The extent to which shifts of this kind have taken place in case-meaning and in modal meaning must be very great. The subjunctive in subordinate clauses furnishes abundant illustration, upon which it is not necessary to dwell. The fact of subordination, if it is clear, is the most important element in the meaning of the whole group, and under its influence the mode is so shifted that only uncertainly and by the most careful tracing can any connection be found between its meaning and the meaning of the same form in independent sentences.

The working together of these three forces, word-meaning, secondary inflections and context, to give precision to the meaning of inflectional forms or to produce shift of meaning may be illustrated briefly from certain uses of the subjunctive,[1] the use in some kinds of wish and some of the uses which are included under the term potential.

The wish is not distinguished from other expressions of desire either by a sharp line of demarcation or by any essential difference in the nature of the desire felt. It seems quite certain that, if the Greek and the Sanskrit had not developed a second mode, and if this mode had not been called Optative from one of its most obvious functions, the sharp distinction commonly made between Will and Wish would have had no place in syntax. Such a phrase as *Quod habes ne habeas et illuc quod nunc non habes habeas uelim* (Plaut. *Trin.*, 351) is a wish, but *quod agis ne agas* would not be optative and many expressions of desire lie in a border-

[1] See Amer. Journ. of Philol., XVIII, 4, pp. 383 ff.

land between wish and will. The distinction, so far as any distinction can be made, lies in the object of desire and in the circumstances. This is also the distinction between other expressions of desire, between command and entreaty, between demand and permission. Standing alone, as it might in conversation, *uenias* is almost undefined; only in the light of further knowledge of the nature of the coming and the circumstances of speaker and actor is it possible to say whether *uenias* is a command or an entreaty or a permission. It is not necessary to decide whether the object desired and the circumstances are the cause of the difference in the nature of the desire; they are, at any rate, the invariable accompaniments and the criteria by which the nature of the desire is determined. And it is by these criteria that the wish is distinguished from the command, precisely as the command is distinguished from the entreaty. It is true that the wish is sometimes indicated by particles, as by *utinam* or, in Plautus, by *uelim*, but the very fact that such distinguishing words have come into use shows that without them the wish was not always clearly differentiated in expression from other kinds of desire. It is true also that the presence of *utinam* indicates that the need was felt of distinguishing wish from command more clearly than the need of distinguishing command from entreaty or permission, but it is almost wholly in cases which lie in the border-land that *utinam* is used. The most distinct forms of wish do not need a particle; they are clearly marked by the other criteria, the object of desire and the attendant circumstances.

The object of desire is expressed mainly in the meaning of the verb, the circumstances in the secondary inflectional elements (person and number) and in the

context. In such a phrase as *di te perdant* the object of desire is defined by the verb as the destruction of some person or thing. In itself *perdant* might be entreaty or command or almost any kind of desire, but when the person and number are also taken into account, the desire is more closely restricted; *perdant* is then an expression of desire that certain persons shall destroy, a desire expressed to some person other than the actors. When *te* is added to complete the definition of the object of desire, the phrase is limited more closely; *te perdant* could be a form of direction or command only in very peculiar circumstances. The further addition of *di* completes the limitation to a wish, for the gods are to be the actors and their action is beyond the control of human desire. Thus the elements which distinguish the wish from other kinds of desire are defined by word-meaning, by secondary inflections and by context. It is to these that the peculiar meaning of *di te perdant* is due; it is a wish because of these influences, or, to put it from a different point of view, the particular kind of desire which we call optative distinguishes itself from other forms of desire and becomes recognizable as a wish by these means. It is by the detection of these and the analysis of their influence that the phrase is truly explained, not by attributing to the modal form alone the power of carrying this particular shade of desire. The influence of the modal form is so general and so insignificant in such a sentence and the other elements are so much more determinant, that they can give the force of a wish to *di te amabunt*, in spite of the fact that the future does not ordinarily express desire at all.

The problem of the various modal uses which are included in the term *potential* is perhaps an insoluble

one. It is, in brief, to find a connection between the group of will subjunctives and the group of subjunctives expressing opinion, possibility, contingency and so on. The method by which Delbrück has treated this problem in the *Conjunktiv und Optativ*, by showing various intermediate steps in which the elements of will and determination gradually fade out, is perhaps the best possible, but it is not an explanation. It classifies the grades of will and opinion which lie between the two extremes, but it does not show how a form which had will for its fundamental meaning came to pass through these various stages over to uses in which there is no trace left of that original meaning. Elmer (Studies in Latin Moods and Tenses, Part III) has tried to show that there are but two varieties of the potential, that all are reducible to the "'would'-idea" and the "'should'-idea." This, if it were correct, would not lessen the difficulties of the problem, and it involves much forced translation. The suggestion, first made by Greenough, that all subjunctive uses come from an original future, shifts the problem without really solving it, in spite of the evident elements of truth in it. A better knowledge of the process by which inflectional forms acquire and shift their meanings must be reached before this problem, perhaps the most difficult in Latin syntax, can be successfully attacked.

The first step, however, toward a solution of the problem may be taken. It is a recognition of the fact that the term potential covers a great variety of usages, which have indeed some common elements, and may be said to be partakers in a general movement, but which have no other historical or causal connection with each other. When we place together such phrases as *dixerit*

quispiam, *quis dubitet? nescias an*, *uix creaere possis*, *quid agam? putes*, *cur ego non laeter? sed maneam etiam* in one group and call them by a single name, we are emphasizing a common element which is present in all. But when we treat these various expressions as if they constituted a unity, and discuss that unity as if it were an actually existing thing, we are guilty of the error of hypostasizing an abstraction — an error which underlies much of our functional syntax. There are many usages to which the name potential may properly be applied, as a convenient syntactical term, but *The Potential Subjunctive* does not exist, has had no source, has no connection with *The Volitive Subjunctive* (which also does not exist) and therefore has no history. In the strictest sense, only the single forms, *dixerit*, *nescias*, *putes*, may be said to exist and to have a history, but it is also possible to speak of groups of such forms whenever it is clear that the similarity between them is so great that what is true of one is true of all. Thus the verbs of mental action in the second person singular with an indefinite subject — *uideas*, *censeas*, *putes*, *scias*, *audias* — are so much alike that for the discussion of the mode they may be treated as if they were all one verb, that is, they form a group, a syntactical usage. A like group is formed by the subjunctives in deliberative questions, though there are in such a group minor differences, due to the form of the question or of the interrogative word. And many other such groups of usage might be named. Now, the first step toward an understanding of the potential is in the more precise determination of such groups, in the observation, in other words, of the differences between different potentials, rather than in the denial or neglect of such differences and the continued attempt to solve the problem

by reasoning from the similarity which runs through all the groups.

A second step would naturally be taken at the same time. The determination and definition of these usages involves also the observation of all their characteristics, the meaning of the verbs used in them, the person, number, and tense, as well as the mode, of the verb, and the influence of the context. It may be that other elements than these are involved and that the analysis of these elements alone will not suffice to show how the potential meaning has become attached to the sentence, but it will certainly contribute to that end. Thus the group of potential usage which consists of verbs of mental action, *audias*, *uideas*, *putes*, *censeas*, *inuenias*, *desideres*, etc., is, in part at least, explained by the meaning of the verb and by the indefinite subject. Verbs of mental activity are to a considerable extent incompatible with the jussive ideas. Commands in the strictest sense can be given only in regard to actions which it is in the power of the actor to perform or to refuse to perform. It is almost impossible to use in English such imperatives as "Perceive!" "Comprehend!" and when verbs of mental activity are employed in jussive forms it is with a shift of meaning. Thus the imperative *know* means something like *allow me to tell you* as *scito* in Cicero's letters has a similar meaning; *think* means either *try to think* or *fancy*, *imagine*, and *cense* must be a very rare form, if it is found at all; *audi* does not mean to hear comprehendingly, but to listen. The incompatibility of these verbs with imperative uses leads, whenever by analogy their imperative forms are employed, to the dropping out of the elements of mental activity and the narrowing of their meaning to the use of the organs of seeing and

hearing or to other activities which are within the control of the will. This tendency away from the jussive is increased by the incompatibility of the indefinite second person with commands. The direct forms of willing imply almost the physical presence of speaker and actor; where the actor is not present, the verb being in the third person, something of directness is generally lost, and when the subject of the verb is in the plural, describing a class of persons, *reges*, *matronae*, *serui*, the jussive force of the mode is toned down to an expression of obligation or propriety. So, when the subject and actor is entirely indefinite, the direct imperative is impossible. In English the phrases which contain the indefinite *one* — one should try, one must see, one would (necessarily) suppose — imply obligation or necessity or propriety, and this appears to be true also of the German *man denke;* in *man siehe* (*uide*), *man vergleiche* (*confer*) a certain degree of definiteness is given to the command by the fact that the reader applies it to himself.

There is a considerable, though narrow, group of phrases like *aliquis dixerit*, *aliquis dicat*, to which the same reasoning will apply. The verbs are verbs of speaking and the subject is indefinite. These two facts mark the class distinctly and separate it from ordinary potential or hypothetical uses.

Deliberative questions are sometimes said to be potential or to be allied to the potential in their modal sense. Enough has been said above to suggest a different line of explanation. The subjunctive in these questions is but one of the expressions of deliberation and not the strongest of them. The meaning of the verb in these questions plays a curious part; it is usually a repetition of an idea already suggested in the preceding context,

either repeating precisely a verb already used or embodying an idea previously implied in different words, or it is a verb of very general and vague meaning, like *faciam*, *agam*. In either case the emphasis of the sentence is not upon the kind of action; especially where the verb is *faciam* or *agam* the kind of action is left undefined, and this, when combined with an interrogative word, helps much to convey the impression of indecision and hesitation. But the main influence here is the form of the sentence. Questions properly deliberative are rare in the uses with the particles *-ne*, *num*, *nonne* or without interrogative words. Such sentences are more nearly exclamatory and repudiating, and they are too definite for deliberation. Usually the deliberative question has some form of *quis*, that is, it is put in the most indefinite form, the form which allows the widest range of possible answer, and therefore most easily conveys the idea of deliberation. It is chiefly to the two influences of verb-meaning and sentence-form that *quid faciam?* owes whatever potential or deliberative effect it has, not primarily to the mode, which has rather accommodated itself to the tone of the sentence than been active in producing that tone.

It would require a longer discussion than is possible here to show in any detail the way in which the context influences the meaning of the mode in the ordinary potential (hypothetical) use, but it is evident that the influence of an informal protasis upon the apodosis is of the same nature as the influence of a formal protasis. Either sets a hypothetical tone, to which the rest of the sentence must accommodate itself. The presence of such an element in the context, marking the whole concept-group as unreal, is the invariable accompaniment of the hypothetical potential and it, rather than

the mode, is the point of attack in the endeavor to explain this usage.[1]

The foregoing remarks upon the potential are not presented with any notion that they solve the problem of potential uses, but only by way of illustration of the general principle that the analysis of the effect of word-meaning and context offers a method of approach to the problem. In general, it is the context which most strongly affects the potential and it is in part to the variability and complexity of this kind of influence and the difficulty of reducing it to system that the elusiveness of the potential is due. This is the reason also why there are sentences in which even the indicative, especially the future, has potential shadings.

The substance of this chapter may be briefly stated.

Whether inflected forms were originally the result of some kind of composition or not, their earliest meanings can never be recovered. It is probable, however, that their early sphere of use was wider than the later and that their meanings were less precise and fixed. When later meanings are precise and fixed, it is because the inflectional form has been repeatedly used in certain connections and under certain conditions. An association thus set up between a form and a certain meaning may become so permanent that it remains after the conditions which at first accompanied it have been changed, but in many cases the meaning of the form still varies with the conditions. In such cases it is chiefly or wholly by observation of the conditions that the meaning of the inflectional form in a particular case is recognized. The tendency of syntacticists has been to lay too much stress upon the inflectional form, to attrib-

[1] See also Chap. VIII.

ute to it a larger portion of the meaning than it really carries and to neglect, comparatively, the influence of surrounding conditions. A closer observation of these conditions — such as word-meaning, other inflectional terminations, context and no doubt still others not mentioned here — will, on the one hand, be of value in interpretation and, on the other hand, may be expected to lead toward an understanding of the process by which inflectional forms have acquired at least their precision of meaning, if not their original meaning. This method of investigation may thus contribute from a somewhat untouched side to the solution of one of the greatest problems of linguistics, the nature and history of inflection.

V

THE EXPRESSION OF RELATION BY SINGLE WORDS

The general movement by which single words have in part taken the place of inflection is the most sweeping and radical change in the history of the Indo-European languages. It is at once the indication and the result of a clearer feeling of concept-relation. Inflection in the main rather suggests than expresses relations; it is, certainly, not correct to say that in every case the expression of relation by a single word, *e. g.*, a preposition, is clearer than the suggestion of the same relation by a case-form, but it is correct to say that the relation can become associated with a single word only when it is felt with a considerable degree of clearness. The relation between concepts must itself become a concept. To this extent the movement toward the expression of relations by single words is a movement toward precision, and the correct interpretation of its phenomena must recognize this as a fundamental principle.

Syntactical investigation in this direction is in general less difficult than the study of inflection. It does not lead back so directly to prehistoric conditions, nor does it involve any general hypothesis so intricate as those which the very complex phenomena of inflection must require. It is on the very border-land of semasiology, for it deals with the meaning of words, function and meaning being in this case quite indistinguishable.

The fact that the meaning is a concept of relation adds somewhat to the difficulty, but the semasiology of preposition is not more difficult than that of many verbs. The syntax of prepositions and particles and of many conjunctions is in fact a matter chiefly of observation. For this reason it has moved on more steadily than the syntax of inflection, and in many directions it may be said to be substantially complete. What still remains to be done in the study of prepositions is really stylistic rather than syntactical; more can be learned in regard to the usage of particular writers, but not much more in regard to the history of prepositions or in regard to the laws of language under which they perform their function.

In one respect, however, the study of prepositions has shared in the advance of the last half-century, that is, in the application to it of the doctrine that the power of expressing relation was not inherent in these words, but was acquired in the process of use. This doctrine is comparatively simple in its application to prepositions, and is the more easily accepted because a considerable number of prepositions have passed through the change within the historical period, so that the process can be followed in detail. In Latin, however, there is still work to be done in tracing more accurately the steps of the change, and in studying from the semasiological standpoint the laws which govern it. Such study would be of more value for the light it might throw upon the nature of case-constructions than for its contribution to the knowledge of prepositions. For the adverb would not have been added to the case-construction at all, had not the inflectional form been felt to be in some respect inadequate. The adverb-preposition is the expression in

more distinct form of some element of meaning which was latent in the case-form. It serves therefore as a definition of the meaning of the case-form and, when viewed in this light, may assist in solving the problem of inflection.[1]

The application of the same doctrine of the acquisition of relational function to conjunctions, especially to subordinating conjunctions and to the relative pronoun, introduces greater difficulties because it is interwoven with the question of the use of the subjunctive in subordinate clauses. These two questions, of the conjunction and of the mode, cannot be wholly separated. The function of a subordinate clause, *e. g.*, the expression of cause or of purpose, is a function of the group, which has been in part transferred to the conjunction, in part to the modal form, and is in part retained by the word-group. Where a function is so divided it is not possible to make a complete study of one portion of it without taking into consideration the other parts also. Yet the process by which the modal form has been accommodated to aid in the expression of purpose is different from the process through which the conjunction has passed, and to some extent the two questions must be kept apart. The work which has been done in recent years upon the subjunctive in subordinate clauses is in general correct in outline and of considerable value. The subjunctive in the *ut* or the *qui* clause of purpose is certainly connected with the independent uses of the subjunctive to express will and desire and the mode in *qui* clauses of characteristic resembles the potential uses. Other clauses have been worked out in more detail and still others have been

[1] Compare Chap. VI, on a similar interpretation of modal meaning by means of a prefixed verb.

attempted with industry and ingenuity, if with only partial success. This kind of work is the best that the syntax of the last twenty-five years has produced. But it is still unsatisfying. It is open to the criticism which has been made before and which applies to much of our work in historical syntax, that it is too vague, that it stops with the discovery of resemblances or, at the best, with the establishment of connections. By what steps the subjunctive in an *ut* clause of purpose is connected with the independent subjunctive of will and desire, what changes it has undergone to enable it, with the *ut*, to express purpose, what linguistic laws have governed the change — in a word, the details of the linguistic process — these questions are still for the most part unanswered. Indeed, they are scarcely asked. To some extent we are still answering the old grammatical question of the class-room, "Why is this verb in the subjunctive?" and are answering it, under the influence of the study of origins, by saying, "Because it is derived from an independent subjunctive of will." This is better than to say, "Because it is in a clause of purpose," but neither question nor answer is final.

Beside the questions in regard to the mode there are two other questions raised by the doctrine that all subordinating function is acquired. They relate to the nature of parataxis, the middle stage through which conjunctions are thought to have passed, and to the history of the Latin conjunctions in particular. These will be taken up in the following chapters, but meanwhile a word may be said here in regard to the present state of knowledge on each of these points.

Parataxis is commonly thought of as a kind of melting together of two independent sentences. The ex-

amples given by Schmalz[3], § 265, *Die Sonne scheint. — Wir wollen spazieren gehen*, with the other steps which show how this thought passed from independence to subordination, probably represent with fair accuracy the average understanding of parataxis. There is in existence no complete collection of the cases of parataxis from any author, to give a basis for classification and determination of varieties, and the most recent work does not indicate any great advance beyond the functional classification of Draeger.

In regard to the Latin words of subordination, *qui* and the conjunctions, matters stand somewhat better. The etymological side of the work has been done, though of course not by syntacticists, and the formal connections of the conjunctions are as well known as the nature of the case admits; a few words, like *donec*, are still riddles and some others, like *ut*, are still doubtful. On the syntactical side, *qui* (how) and *quin* have been cleared up by Kienitz, though the fact that *quin* with the subjunctive in independent sentences is so rare leaves a weak link in the chain; *ni* in its earlier uses has been settled by O. Brugmann and *quamuis* and perhaps *dum* are pretty well understood. As to the other conjunctions and the relative pronoun, it is now possible, with the help of etymology and the doctrine of acquired function, to imagine a way by which any of them may have passed over into conjunctional use, and in some cases the guess has much probability. It is something to know that *si* is related to *sic* and is somehow parallel to the English *so* in conditions and to be able to say with some degree of certainty that many of the conjunctions come, directly or indirectly, from *quis*. But there is still much to be learned. The history of each of these words is a problem in semantics, for the

complete solution of which we need to know the details of the shift of meaning, the elements lost and gained, and most of all the forces which operate in the process. Without these our results are uncertain, because they are not strictly tested, and empty, because they do not reveal the working of linguistic law. And they may become even obstructive. For the tendency of accepting a guess, however probable, in the place of a real explanation, is to hinder scientific advance. This is well illustrated in the treatment of the relative pronoun. It is commonly said that *qui* is derived from the interrogative *quis* and the statement is supported by *wer* and *who* and by examples like *quae mutat? ea corrumpit* = *quae mutat, ea corrumpit.* A still more elaborate example of the same method of explaining the relative is given by Deecke.[1] The sentence *punietur uir qui hominem occidit* is supposed to have come from a dialogue between two speakers, thus: A. *Punietur uir* (*ille*). — B. *Qui* (*uir punietur*)? — A. *Hominem* (*ille*) *occidit;* then by self-questioning and combination of the words of the two speakers, *punietur uir qui* (*?*) *hominem occidit.* The correctness of this hypothesis is not in question here;[2] in this or in some similar form it is generally accepted as a sufficient explanation of the relative pronoun and, with some functional divisions of relative clauses with the subjunctive, as a suffi-

[1] *Die griechischen und lateinischen Nebensätze, . . .* Buchsweiler program, 1887, p. 39.

[2] Besides the impossible awkwardness of the dialogue, especially the reply of A, this and all similar explanations of *qui* involve the supposition that a very common form of sentence came into use through the union of the words of two speakers or through self-questioning and answer. This is like coining a word to heal a corrupt text; such a process as the uniting of the words of two speakers into one sentence is entirely unknown in language. Sentences like *quid agam nescio* are not question and answer nor are relative clauses indirect questions.

cient treatment of the whole subject of the *qui* clause. And this too easy acquiescence in a superficial method has obstructed scientific advance. Within a decade scarcely anything has been published which adds to our knowledge of this important field. The categories of Dittmar (*Studien*, pp. 97 ff.) are the only exception.

It must be said, therefore, that the work of the last thirty years, since the publication of Delbrück's *Conjunktiv und Optativ*, is not final nor satisfying. It has somewhat increased and cleared up our knowledge of the uses of the subjunctive in subordinate clauses, but with the exceptions mentioned above (*quin*, *ni*, *quamuis*) it has added little to our knowledge of the nature of the process by which subordinating force was acquired and has contributed practically nothing to method.

One attempt in the direction of determining the steps by which a conjunction acquired subordinating force deserves special mention, not so much for what it accomplished as for what it attempted. Probst, *Beiträge zur lateinischen Grammatik*, in the third part, pp. 175 ff., takes up the general problem of the history of conjunctions, and on p. 213 gives for the pronominal particles five steps: (1) Interrogative-adverbial (temporal, local, causal, etc.); (2) rhetorical-adverbial (*ornativ*), in which the sentences are used as exclamations and the particles also become exclamatory and to some extent merely ornamental; (3) *interrogativ-particulär*, in which the particles share a function of the interrogative sentence and express doubt or expect a positive or a negative answer; (4) *ornativ-particulär*, the particle again becoming merely rhetorical, but with a shading of the force acquired in the previous stage; (5) the conjunctional stage. It need scarcely be said that this

history, either as an account of *ut* or as a general outline of all Latin conjunctions, is in many respects at variance with the facts. There is nothing in the history of *ut* to indicate that it ever had positive or negative or dubitative function, and the third and fourth steps are the result of a confusion between the *quis*-question and the sentence-question. The worst error is in supposing that all conjunctions, *e. g.*, *quod* (pp. 235 ff.), *enim* (p. 242 f.), passed through an interrogative stage. But in spite of its evident and serious defects, which have naturally somewhat obscured such merit as it has, the aim of the article is a correct one, namely, to follow the change from adverb to conjunction through its details and to discover the associations by means of which the subordinating force has been acquired. The method also, though it is defective at many points, is correct in so far as it derives the subordinating force and some of the shades of meaning of the conjunction from its association with certain kinds of sentence.

The failure of Probst was due in part to the fact that the science of semantics was not then far enough advanced to afford as much help to syntax as it can now give, but even now in this particular field it is still impossible to do more than state some general principles. For the semasiology of conjunctions presents peculiar difficulties. A semantic change is a shift of meaning from a starting-point, through an intermediate step, toward a goal, and in all three respects the shift of meaning of a conjunction is more obscure than that of a noun or a verb. Each of these points, the origin of conjunctions, the nature of the concept expressed by them, and the intermediate stage through which many of them pass, calls for special consideration.

The origin of conjunctions lies for the most part back of the point where literature begins. Their early history, whether as particles or as conjunctions, is recoverable only by inference. This is especially true of the coördinating conjunctions, *et*, *-que*, *atque*, *sed*, *aut*; they are all in free and fully developed use in Plautus and the scattered fragments of pre-Plautine Latin are of little value for syntax. But it is also true of many of the subordinating conjunctions, *si*, *ut*, *donec*, *quia*, and of the pronoun *qui*. Only one thing may be said with confidence, that they are of very various origin. The majority in any language are probably pronominal, but there are also verb-forms, cases of nouns, and particles and adverbs which, if they were originally verbs, nouns or pronouns, have long lost all connection with their source. This variety alone excludes the possibility of treating all conjunctions alike and expecting to find certain stages, as Probst attempted to do, through which all alike had passed. The loss of meaning which each conjunction undergoes will be different in kind according to its origin, and, while all may be reducible to classes and traceable to like general laws of association, they will vary in all their details. A verb-form, as the first step toward conjunctional use, must lose person and number and most of its verbal force; a noun-case must lose the definite case-relation to other words, and this loss will be through one process for an ablative, through another process for an accusative. A pronoun must lose its pronominal reference to an antecedent, at least in part, or, if it is an interrogative, may lose its interrogative character. Of two case-forms of an interrogative pronoun one may experience a greater degree of loss in its character as an interrogative, retaining the elements of meaning which belong to its case-form, while

the other retains its interrogative force only slightly diminished, but shows little evidence of connection with any particular case meaning. Further complication results from the different order in which different words passed through the stages of change. Thus *quin* lost its pronominal character first, becoming an interrogative adverb or particle, and afterward lost its interrogative character and became a subordinating conjunction, but *quod*, passing through *qui*, lost its interrogative force first and acquired subordinating force, and after that change was fully accomplished lost its case-construction and its pronominal reference to an antecedent. This variety in the starting-point of the shift and in the first steps, the character of which was determined by the starting-point, greatly complicates the semasiology of conjunctions.

The nature of the meaning which is the goal of the change adds to the difficulty of following the process. For it is a relation, and has all the variety and the vagueness which belong to concepts of relation. The concept of purpose is as varied as the two actions between which the relation exists, and this variety is so great that no single method for expressing it suffices in Latin, but the supine, the gerund, the *qui* clause and various conjunctional clauses exist for expressing its different shadings. The variety of forms taken by any relation may be seen in the length and fulness of lexicon articles dealing with the more important conjunctions, especially the subordinating conjunctions like *ut* and *cum*. It is difficult even to distinguish between subordinating and coördinating force; *et* sometimes expresses a kind of subordination and *qui* connects sentences grammatically independent. This is because the concept of relation, and in an especial degree the relation

between groups of concepts, is by its very nature less precise and less definitely felt than the concepts which correspond to nouns or adjectives or verbs. The analysis of it is therefore peculiarly difficult, and without analysis it is impossible to say which elements come from one source, *e. g.*, from its origin, and which are introduced by later associations.

These difficulties in the way of understanding the history of conjunctions are dwelt upon at some length partly in explanation of the comparatively slight progress made by syntacticists in the doctrine of conjunctions, but more particularly in order to emphasize the hopelessness of searching for some general scheme of method. For the present, the study of conjunctions and of the subordinate clause must proceed by the accumulation of observations. Until a greater mass of observation has been put upon record the doctrine of conjunctions must remain largely hypothetical.

A third difficulty is in the intermediate stage, the paratactic stage through which all subordinating words are thought to have passed and in which they acquired subordinating force.

VI

PARATAXIS

The term parataxis[1] was introduced into scientific nomenclature, apparently, by Thiersch in his Greek Grammar (1831). The doctrine was again stated by Lange in his paper of 1852, and the word has since become an accepted syntactical term. But, as frequently happens, the term has remained unchanged, while the conception which lies behind it has been deepened and enlarged, and at the present time more extended observation is hampered and discouraged by lingering reminiscences of the original and too narrow use, or confused by the variety of conflicting and incomplete definitions. In this chapter, therefore, definitions will at first be disregarded and the whole subject of sentence-connection and of the means of expressing the relation between concept-groups will be included in the discussion.

If definitions of parataxis have necessarily expressed different views of the subject, so also has the method

[1] Jolly, *Die einfachste Form der Hypotaxis*, in Curtius' *Studien*, VI, 215 ff.; Weissenhorn, *Parataxis Plautina*, Burghausen, 1884; Weninger, *de parataxis in Terenti fabulis uestigiis*, Erlangen, 1888; Becker, *Beiordnende und unterordnende Satzverbindung bei den Altrömischen Bühnendichter*, Metz, 1888; Hentze, *Die Parataxis bei Homer*, I, Göttingen, 1888; II, 1889; III, 1891; Ries, *Was ist Syntax?* p. 150 f.; Ries, *Quellen und Forschungen*, 41, esp. pp. 23 ff.; Ries, *D. L. Z.*, 49 (1888), 1785; E. Hermann, *K. Z.*, 33 (1895) 481–535; Lindskog, *Quaestiones de parataxi et hypotaxi apud priscos Latinos*, Lundae, 1896.

of treating collections of paratactic cases varied. The most general discussion is that of Hermann (see preceding note). He deals with the most rudimentary means employed in language for the suggestion of subordination, and while the outline of the paper is instructive and is in part adopted below, the nature of the question which Hermann had set himself to answer makes his method of treatment unsuitable for the classification of paratactic material in a single language. The programs of Hentze are admirable collections of material, arranged most methodically on a clearly explained system and for a definite purpose. That purpose is the study of parataxis as an element of style, in order to show from the esthetic point of view how largely it affects the Homeric style. The classification is therefore functional, but it is carried out with such sharpness of distinction and such detail of subdivision that the dangers of this method are almost wholly avoided. After the functional or psychological description of each subdivision, the peculiarities of mode or the pronouns or particles which distinguish the form of expression are given, so that the same classification, if it were reversed, might serve the purposes of historical syntax. In such discussions of paratactic material as deal with Latin the less accurate scheme of Draeger is usually followed. Draeger disregards the form of sentence entirely and classifies the cases according to the subordinate clause which each is supposed to stand for. Thus we have parataxis instead of protasis and apodosis, instead of a clause of purpose, instead of a causal clause, and so on. This method has two disadvantages, either great enough to condemn it for use in syntactical investigation. First, it disregards the signs of relation which are, so to speak, the seeds out of which subor-

dinating conjunctions grew. And, second, a purely functional classification must be extraordinarily precise and detailed (as it is in Hentze's programs) or else it will not be stable. Classification by general function, causal, temporal, conditional, final, is so uncertain that no two interpreters working upon the same material can agree in their classification, and it is a fair question whether this method of treating subordinate clauses is not a positive hindrance to investigation. However this may be with reference to the subordinate clause, it is certainly true of the classification of paratactic material, for here, by the nature of the case, the relation is only suggested, not clearly expressed in a definite form. The classification of a particular instance is therefore almost certain to be determined by some chance association with a passage in which a similar thought was expressed by a condition or a causal or a temporal clause.

Parataxis may be considered, as may any syntactical problem, from three different points of view: first, the psychological aspect; second, the means used in language to suggest the paratactic relation, and third, the resulting forms of sentence.

It has been said above (Chap. II) that in connected discourse there is no such thing as complete independence of thought between two contiguous sentences. As long as one concept-group remains in the memory of the speaker, so long a relation continues to exist between that group and the thought which is in process of expression. Two groups of concepts may be separated by intervening groups, and in that case the relation may be so round-about, by way of so many intermediate steps, that it may be without influence upon the form of expression, but when the one concept-

group immediately follows the other, a relation always exists between them and it is always strong enough to be felt, though it may not be defined, by the speaker. It may even be said that it is felt by the hearer also, unless he "loses the train of thought;" that is, a failure on the part of the hearer to grasp the unexpressed relation involves the loss of an essential part of the speaker's thought, just as truly as a failure to comprehend the thought which is expressed in words. This fact of the existence of relation between neighboring sentences, not as something superadded or discovered after the sentences are formed, but as an integral part of the stream of thought, is of the first importance to an understanding of parataxis. It is often said that sentences were at first independent, but that "in course of time in such combinations the one clause *came to be felt* as subordinate,"[1] or "dass erst mit der fortschreitenden Entwicklung der Sprache sich aus der Beiordnung die Unterordnung herausbildete, indem die eine der Handlungen als die bedeutendere (Hauptsatz), die andere als die unbedeutendere (Nebensatz) *empfunden wurde*."[2] In so far as these expressions are intended to mean that the sentence-forms were developed in short independent sentences and then used, at first without change, in subordinate clauses, they are of course quite correct. But the succession of illustrative sentences which Schmalz gives seem to mean more than this: "1. Die Sonne scheint. — Wir wollen spazieren gehen. 2. Die Sonne scheint; wir wollen spazieren gehen. 3. Die Sonne scheint, deshalb wollen wir spazieren gehen." "1. Ich höre: du bist krank; 2. ich höre das: du bist krank; 3. ich höre, dass du krank

[1] Bennett, Appendix to Latin Grammar, p. 197. The Italics are mine.
[2] Schmalz, Lat. Synt.[3], § 265, in Müller's Handbuch, II, 2. Italics mine.

bist." The implication of these examples, taken in connection with the words quoted above, seems to be that in the first examples the sentences are independent in thought and that there is a progress toward dependence in thought as well as in expression. This is entirely mistaken. The connection of thought in the first examples is just as real, though perhaps not so vivid, as in the last examples in which subordination is distinctly expressed. And this is always true of two contiguous sentences in continuous speech. To put together sentences entirely independent in thought, like "The sun is shining. Julius Caesar was killed on the Ides of March," is an indication of mental disorder; in fact, the normal mind, upon hearing two such sentences uttered together, instinctively gropes about for some situation, fanciful or humorous or grotesque, which will afford a glimpse of a rational connection between the two; so strong is the habit of associating mere succession with relation. The upper boundary line, therefore, of the field of parataxis is not, as is sometimes assumed, a condition of complete independence of thought, for there is no such independence between successive groups of concepts.

It does not, however, follow from this that the connection between neighboring sentences is always distinctly felt. On the contrary, the varying degrees of clearness in the expression of connection must be supposed to reflect in a general way the difference in the consciousness of the relation, and a consideration of the phenomena of parataxis on the psychological side must start with the hypothesis that, where the expression of connection is least marked, there the relation was least felt. This is the case when two contiguous concept-groups have no connection with each other

through a single concept, but only by reason of the fact that they express parts of one larger group. The two groups would then be connected only as wholes and only through a round-about connection with the original germ-concept of which they were the analyzed parts. Such a mediate relation remains often undefined, even in the most careful thinking and in the most elaborate expression. It is most distinctly felt, as has been said above (Chap. II, p. 42), at the moment when the utterance of one group is completed and the utterance of the next group is just beginning; at this moment the analyzed concepts of the one group are sinking back into recombination and the next group is as yet only partially analyzed. Both groups are for an instant felt as wholes and then, if at all, the sense of the relation between them becomes clear enough to find expression in some kind of connective word. The essential point here is that mediate connection through a common origin is a connection of wholes; no concept of either group is related by itself to any single concept of the other group.

An advance in closeness of relation takes place when, though the connection is still between the groups as wholes, there is also a relation of similarity or contrast or some other kind of association between single members of the two groups. Such a relation between members of the groups exists whenever the relation between the groups is one of similarity or contrast, since similarity or contrast inevitably extends to details. If all the members or all the important members are included in the similarity or the contrast, the relation will be a close one and it will inevitably find abundant expression in the structure of the sentences and in the selection of similar or contrasting words, but it will not

so easily associate itself with any single word. When the relation of similarity or contrast between the groups is close, but is especially marked between two single members of the groups, it tends to associate itself with the pair of words which represent the similar or contrasting members and these words become the correlative expressions of the connection.

A still higher degree of closeness in the relation exists between two concept-groups, one of which is a briefer repetition of the other. Such a situation is of frequent occurrence and appears to be associated particularly with the effort to express thought in speech. In the process of utterance the speaker is conscious of the inadequacy of his words. The group of words just uttered or just prepared for utterance does not satisfactorily express the concepts in his mind, and especially does not sufficiently express his own attitude toward his thought. He therefore repeats the thought or more frequently summarizes it in a word or two in which he defines the total meaning of the group. He thus expresses in a longer form of words his analysis and in a single word his synthesis of the concept-group, presenting it in its parts and also as a whole. It is not necessary that the synthetic statement should follow the analytic; it may do so, serving as an epexigetical addition, but it may also occur to the speaker in the very process of utterance and be immediately inserted into the main group or it may equally well precede the main group, since the analysis is usually almost complete before utterance begins and the inadequacy of the expression may be felt at the moment when speech is beginning.

In all such cases the relation is a close one, for, in the first place, the synthetic and the analytic expres-

sions of the group have the same content; they cover the same ground and are felt to be in some sense identical. And, in the second place, relation is most easily felt between small groups, since the sense of relation requires that the group shall be felt as a whole and a small group is more easily grasped as a whole than is a larger one. Thus long and elaborate sentences are seldom so completely unified that they can be adequately connected; the connection is usually the merest expression of continuity, not a definition of the nature of the relation. But when one of the groups is very small, as it is when it summarizes the other group, it is itself already felt as a whole and therefore most easily felt in its relations. For both these reasons the kind of connection here described is close and distinct.

A relation of a different kind and perhaps even closer is the result of the analysis of a single member of a concept-group while the other members remain unanalyzed or less fully analyzed. Various causes lead to such detailed analysis. It may be because one particular member of the group is of special importance to the general train of thought or because it is in itself too complex to be fully comprehended without analysis, or it may be because no single word exists which adequately represents it. In any case it is from the beginning on a level with other unanalyzed members of a group, not on a level with another analyzed group like itself. Such a condition of things, though it is not in any strict sense of the word subordination and though it may find expression in a sentence which is not grammatically subordinate, is nevertheless more likely to find expression in a subordinate sentence-structure. Indeed, this kind of relation between an analyzed group and the other unanalyzed members of a

larger group is difficult to describe except in the terms of linguistic science. The need of the further analysis which results in such a relation is frequently not a need on the psychological side, but is immediately connected with the expression of thought. Like the relation described above — the synthetic definition — it is a result, in part at least, of the reflex influence of the forms of language upon the processes of thought.

The means employed in language for the expression of these relations between concept-groups have already been described (Chap. III), but certain of them may be here recapitulated with special reference to parataxis. Their variety is so great and they are so generally found working together that a precise separation and classification is not attempted.

It has been said above that in connected discourse there cannot be complete independence of thought between contiguous sentences. It may also be said, with almost the same absence of qualification, that in connected speech there cannot be complete independence in expression between contiguous sentences, that is, there is never a complete absence of suggestion of the relation which is felt by the speaker to exist between the two concept-groups.

The question whether mere contiguity, without the assistance of any other means, is capable of suggesting a relation between sentences (and words) has been somewhat discussed,[1] but it is not a question of practical importance. In the extreme case, when a child utters two words in succession without indication of the relation in any way, it may still be maintained that the mere succession is the result of a sense of connection on the part of the child and will be understood by the

[1] Ries, *Was ist Syntax?* p. 151 ; *Q. u. F.*, xli, p. 24.

hearer as an indication of relation. But whether that be correct or not, the law of the unbroken continuity of thought is so universal that when two sentences are thus uttered in succession it is impossible to suppress the suggestion of continuity. The hearer, on the basis of an unvarying experience, assumes that a relation must exist, and the fact that one sentence immediately follows another is a fact of utterance, a phonetic phenomenon, just as truly as is the utterance of a special connective word.

But this question is of the less importance because mere succession is never the sole indication of connection; it is always accompanied by the musical elements of speech, tone and time and sentence-accent. These reflex elements are interpreted almost as unconsciously as they are used and it is easy to forget how largely they contribute to the expressiveness of spoken language and especially to that sense of the continuity of thought which carries the speaker over from sentence to sentence. A continuance of the same tone and time, with brevity of pause, is one of the strongest indications that the two sentences are closely related, and, on the other hand, a distinct change of tone and time, with longer pause, suggests that the one sentence closes a group and the next sentence begins another group, and that the relation between the two is more remote, through the groups or paragraphs of which they form the closing and the opening parts. As the musical elements are an integral part of speech, which cannot be uttered without them, it appears to be, in the strictest sense, correct to say that, as the field of parataxis is not bounded on the upper edge by complete independence of thought, so also it is not bounded by complete independence of expression. If hypotaxis is held to begin

with the appearance of the slightest indication of relation, then there is no territory left for parataxis.

Thus far no distinction has been made between coördination and subordination. This is not only because these words cannot properly be applied in the sphere of concept-groups, but also because the suggestions of relation by proximity and by the musical elements of speech are not, in general, distinct enough to discriminate between coördination and subordination. The relation is suggested, but not the nature of the relation. It is characteristic of the simpler modes of thought, those of the child or of the adult unaccustomed to precision of expression, that they dwell but little upon the nature of relations. They feel them and reason upon and by means of them, but they do not do so consciously. Cause and effect, act and purpose, condition and conclusion are alike felt as succession, without sharp distinction as to the nature of the succession. Mere closeness or looseness of relation, which is all that these simpler modes of thinking require, is suggested with a considerable degree of adequacy by the musical elements of speech. It may be that in the spoken languages there is a discrimination by tone and by sentence-accent which, aided by familiarity with the expression of subordination by other means, does suggest subordination. In so far as this is true, the field of parataxis is wider in the spoken languages. But in Latin or in any language no longer in free and natural use as a means of communication the attempt to supply the lost tone-inflection is surrounded with difficulties; it is scarcely possible to be confident in regard to so simple a case of relation as that in *amat: sapit* that the transfer of modern sentence-inflection has any great degree of probability.

If therefore it is desirable, as the usage of most writers on syntax seems to imply, to distinguish between coördination and parataxis and to use the latter term only of forms of speech which indicate some degree of subordination, then the word parataxis should not be used of these most rudimentary suggestions of relation, by which the nature of the relation is not indicated.

The suggestion of the nature of relation with sufficient sharpness to distinguish between coördination and subordination begins in written language with order. Not, however, with any and every kind of order. As there are in spoken language some kinds of tone and pause which may in a rudimentary way suggest subordination, so there are some kinds of word-order which imply subordination much more distinctly than others. In general, a marked degree of likeness or of contrast in the order of words in two clauses is the result of the fact that the speaker, while uttering the second clause, had the preceding form of words distinctly in mind. Such distinct and deliberate retention of the previously uttered sentence occurs only when the two thoughts are somewhat closely related, so that the second can find full and precise expression only by constant reference back to the first. And the hearer, also, having the previous clause thus distinctly recalled, sets the two thoughts together in his mind. One of the most natural results of the vivid recollection of a preceding sentence is that the sentence in process of utterance takes the same general sentence-form and especially the same order. This experience is a frequent one even when it is not desired that the two sentences should be alike. A contrasted order, *e. g.*, a chiastic order, would have much the same effect, with the added element of contrast, which would suggest at the same time the

likenesses and the differences between the two concept groups. While in general mere contrast would not go far to convey the nature of the relation and a merely adversative relation does not necessarily indicate subordination, it is certain that in some cases such contrast carries the implication of subordination, though not of the precise kind of subordination. This would be particularly true of spoken language, where the contrasting order would be emphasized by tone and time and sentence-inflection. In the written language it is usually accompanied and assisted by repetitions and contrasts of single words. But even without such assistance, resemblance or contrast in the order of words in a clause must be regarded as the simplest form of correlation and as the source therefore of some important forms of subordinate structure, *e. g.*, of protasis and apodosis.

In the Germanic branch of the Indo-European languages the order of words within a clause serves as one of the most distinct indications of subordination. The questions[1] which are raised by the position of the verb, however, belong especially to Germanic philology and do not immediately concern the student of Latin syntax. In Latin there appears to be no tendency to indicate subordination by the position of the verb.

It would seem antecedently probable that the order of clauses taken as wholes would furnish suggestions in regard to relative importance and therefore as to the subordination of one clause to another. There are various indications in some subordinate clauses that the nature of the clause is determined in part by its position before or after the main clause. Thus *quod*, "as to the fact that," usually precedes the main clause and

[1] See the bibliographies in Ries, *Q. F.*, xli.

very frequently stands at the beginning of the sentence, and there is good reason for thinking that the position is the determining factor in fixing this shade of meaning upon the conjunction. So *cum inversum* regularly follows the main clause, and in a few other cases peculiarities in the meaning of a subordinate clause are marked by the position. Delbrück, though he sets aside the mechanical classification of clauses according to their position,[1] employs order as in part the basis for a classification of the relative clause.[2] But rhetorical influences are so strong in these matters that as yet little has been made of the effect of the order of clauses upon their meaning.

In one particular case, however, the order of two clauses in parataxis is important, especially in combination with some other peculiarities. A verb or short clause inserted parenthetically into the midst of a longer sentence expresses a thought which arises suddenly in the speaker's mind and which he utters at once without waiting to finish the sentence in process of utterance. Such inserted verbs are usually in the first person, expressing the speaker's attitude toward what he is saying, or in the second singular, expressing the supposed attitude of the hearer. These verbs for the most part remain parenthetic but not always, as in *censen despondebit?* or *credo inpetrabo*. A similar course of thought leads to the prefixing of verbs as an introduction or the appending as a comment to a longer sentence, and these verbs also are usually in the first singular, in the second singular (especially in questions), or they are impersonals which represent the attitude of the speaker (*certum est*, *libet*). It is of course true that the person and number and the meaning of

[1] *Conj. u. Opt.*, p. 35. [2] P. 43.

the verbs help out the effect of order, as in general various elements combine to make language expressive. This kind of paratactic connection is one source of many kinds of subordinate clause.

Inflection also may be a means of suggesting subordination, especially through the tense and mode and person of the subordinated verb. But a consideration of the extent to which the verb-form becomes the bearer of the idea of subordination requires some discussion and will be taken up later in this chapter. Meanwhile, for the sake of completeness, inflection may be mentioned here as one of the means of expressing the paratactic relation.

The suggestion of relation by means of single words is the most frequent and the most definite. It is, in fact, so definite that it soon carries the suggestion beyond the limits of any definition of parataxis over into the expression of subordination by means of conjunctions. But before this point is reached, while there is still no definite expression of grammatical subordination, there are various ways in which relation may be merely suggested by single words.

The most obvious and one of the most frequent is by the use in a second clause of a word referring back to something in the previous clause. This may be a pronoun, which takes up a single concept of the earlier sentence, or it may be by the repetition of any word from the preceding sentence, a noun, an adjective, a verb. Such a repetition produces the same effect that is produced by any other repetition, of tone or of sentence-accent, that is, it recalls the preceding sentence to the memory of the hearer and indicates that the preceding group of concepts is still in the mind of the speaker. It is almost always, perhaps always,

accompanied by a resemblance in the musical elements. In the utterance of the words "On this side was glory, on this side fame," the second phrase repeats with little variation the sentence-inflection of the first, but if the relation is one of contrast, "On this side was glory, on that side shame," the contrast is marked by a difference in tone and accent. The form of sentence, also, will often assist the contrast by balancing dependent infinitives or prepositional phrases of similar form. But in all cases of correlation, especially in written language, the single repeated or balanced word, though it may not be the most potent means of suggesting relation, is the most distinct and therefore the one upon which the association is most likely to become permanently fixed. This is especially true when the repeated word or the contrasting pronoun is at the head of the clause, so that it is uttered and heard at the moment when the relation between the two groups is most vividly felt; in such cases it is difficult to say when such a word ceases to be an adverb and becomes a conjunction. Thus *hinc — hinc*, *hinc — illinc*, are scarcely distinguishable as to function from *si — sic*, and it is a question whether *dum — dum* (Catull., LXII, 45, 56) is a correlation or only a repetition; without the inflection which the spoken sentence would have, it is impossible to decide. In some cases an adverb may thus become momentarily a conjunction as in Tac. *Ann.*, I, 28, *tarda sunt quae in commune expostulantur: priuatam gratiam statim mereare, statim recipias*, where for the moment *statim*, supported by the influence of order and sentence-form, becomes a conjunction.

Upon the various means which have come into use in speech for the suggestion of relation between concept-groups two general comments may be made. In the

first place, they do not occur singly, but always in combination. The sentences brought together in parataxis are always contiguous and there is always some indication of the relation in the time and tone and sentence-inflection; these forms of suggestion can never be lacking. The order is not necessarily such as to be suggestive of relation, though it will often be so. Person, tense and mode frequently give no indication of the relation, especially when both verbs are in the indicative, and even more frequently there is no single word which by repetition or correlation shows that the sentences are connected. Some of these are always present, others are not necessary, but none of them will be found in actual usage dissociated from all others.

In the second place, though these means may be arranged in a scale, as is done above, according to the frequency of occurrence, the scale is not perfectly regular nor is it a perfect measure of effectiveness. In general, order, inflectional peculiarity and single words are more distinct than the musical elements, but it can scarcely be said that they are more effective. Rather, the musical elements and the influence of mere contiguity afford the strongest suggestions of relation, while the other means localize the suggestion and bring it to a point. The musical elements have more to do with the fact of relation, the others with the kind of relation, and it is only when the relation begins to be associated with single words that the nature of the relation is at all clearly defined. Order may sometimes be more nearly precise than single words, and inflectional peculiarities may be so effective and so clear that the insertion of a conjunction adds nothing to the definiteness of the expression. Regularity and exactness of classification are therefore out of place here; it must be

expected that sometimes one, sometimes another influence will predominate and if any classification of paratactic structures were attempted on the basis of the means of expressing relation, it would necessarily be flexible and somewhat complex.

The forms of sentence which are the result of the employment of these means may be grouped under several heads:

1. Sentences complete in themselves may stand in juxtaposition without a connective word, either because they are so long and require so much analysis and recombination that they are not easily felt as wholes or because the connection is so obvious that it does not need to be expressed. In the first case the sentences are usually long and are in serious and somewhat elaborate thought. The connection is not immediate, but is through a common germ-concept of which each sentence represents a part. Even in such cases, which occur frequently in formal writing, pronouns or pronominal adverbs or repeated nouns or verbs often assist in carrying the thought forward. When a connection is more distinctly expressed between sentences of this kind, it is usually by a coördinating conjunction. On the other hand, when short sentences, often consisting only of the verb, are put together without conjunctions, it is because the connection is of a very simple kind and so obvious that it is felt by speaker and hearer without the help of a connective word. It is because the connection is clear that the absence of it attracts attention and a special term — asyndeton — is given to it.

2. Sentences connected by conjunctions like *nam*, *enim* are, in spite of the connection, separated by a distinct pause and are regarded as grammatically inde-

pendent; the grammatical structure of the one is not influenced by the structure of the other. This is not because of a lack of closeness in the relation or even because the relation is undefined; it is frequently quite as close and its nature is as clearly defined as when grammatical subordination is employed to express it. The difference is mainly in the size and complexity of the two groups. Syntactical subordination is natural only with small groups. The subordination of long clauses, by which an elaborate periodic structure is built up, is found only in a highly artificial style like that of Cicero. In the more natural speech large groups preserve their identity and are not merged into each other. If mere succession does not sufficiently suggest the connection, such conjunctions as *nam*, *enim*, *ergo* are used, but the identity of the group is not disturbed. The fact that the group retains its identity and its grammatical independence justifies the use of the term coördinating of these conjunctions, though the relation of the two sentences may be exactly the same as the grammatically subordinate relation expressed by *cum*.

3. Sentences of the correlative type are in general those which result from the balancing of two concept-groups by some kind of similarity in sound or structure. They range from short sentences, sometimes consisting of the verbs only (*amat : sapit*), to long clauses in which all the means of expressing correspondence or contrast — order, single words, similarity of structure — are employed. This kind of sentence has been frequently studied and its characteristics need not be dwelt upon in detail. From it come various forms of subordination, especially the protasis and apodosis and probably the *dum* clause or at least some kinds of *dum* clause. It is also possible that *qui* acquired subordinating force

by being used as an indefinite pronoun in correlation with demonstratives.

4. Short sentences, consisting of a verb alone, of a verb and subject pronoun or occasionally of a verb with object or adverb, are prefixed to, inserted into or appended to another sentence. The two verbs then stand in close relation, frequently in immediate juxtaposition without a pause between, and not infrequently the subject of the longer sentence is by prolepsis the object of the prefixed or inserted verb. This kind of connection occurs so frequently and is the parent of so many subordinate clauses that it must be treated at some length. Without attempting completeness of statement it is possible to select certain typical forms.

a. Certain verbs of mental action, *scio*, *uideo*, *audio*, *credo*, *spero*, *opinor*, *dico*, etc., are used in the first person singular of the present indicative, usually alone but sometimes with *ego* or with an adverb, to define the speaker's attitude toward the statement which he is making. In colloquial speech these verbs may stand at the beginning of the sentence or at the end or may be inserted into the middle of the sentence; in more formal style they are usually inserted parenthetically. They are sometimes divided from the rest of the sentence by pauses more or less distinct, so that in printed texts the pause is marked by a comma or by a colon, as in Ter. *Phorm.*, 110, *iam scio : amare coepit*, Plaut. *Men.*, 599, *amica exspectat me, scio.* But the inserted verb may be so incorporated into the sentence that the pause must have been very brief, as in Plaut. *Most.*, 699, *tota turget mihi uxor scio domi*, Plaut. *Poen.*, 1016, *mercator credost.* In all cases the main thought of the sentence is gathered about the verb of the original sentence and the verb of mental action is an addition, an after-thought,

by which the speaker seeks to define the total intention of the sentence. It expresses an idea already contained by implication in the sentence, but not explicitly expressed.

b. In questions the inserted verb is in the second person, and the intention of the speaker is to ascertain the attitude of the hearer toward a certain question. Thus in *Rud.*, 1269, *censen hodie despondebit eam mihi, quaeso?* there is really a double question *despondebit eam?* and *censen?* and of these *despondebit* is the original and the essential, but the addition of *censen* lays the stress of desire for information upon the hearer's attitude. When the main sentence is not interrogative, the question, *scin, non tu scis, audin, ain*, is of necessity separated from the rest of the sentence by the interrogative inflection and pause. This fact makes it awkward as a parenthetic insertion in a non-interrogative sentence, as in Ter. *Andr.*, 441, *biduist aut tridui haec sollicitudo, nosti? deinde desinet*, where it may be questioned whether *nosti* is really interrogative. Most frequently the verb stands at the beginning of the sentence with a pause after it, forming an introduction to the following question, as Plaut. *Pers.*, 491, *ain, apud mest?* When the main sentence is not interrogative, the pause is necessarily longer and is marked by the change of inflection, as in Plaut. *Pseud.*, 172, *auditin? uobis, mulieres, hanc habeo edictionem.* In these cases the relation between the two sentences is a loose one, but the question is still an explicit expression and definition of a thought which is latent in the situation and the main sentence.[1]

[1] Examples of this and of the preceding class may be found in E. Becker, *Beiordnende und Unterordnende Satzverbindungen . . .*, Progr. Metz, 1888. This study, so well begun, has never been completed. Examples of the following classes are given in the Amer. Journ. of Philol., XVIII (1897), 70 and 71.

c. When the main question is in the subjunctive, it is often defined by the addition of *uis*, *uin*. The more direct uses of the subjunctive as a mode of will are to a considerable extent incompatible with interrogation, as the imperative mode is. It is true that questions in the second and third persons, in which persons the jussive uses are most prominent, do occur, but in them the mode is always modified by the interrogation; questions with the subjunctive usually are in the first person singular, in which the mode expresses determination. Most of these questions fall into one of two classes; they either take up and repudiate a previously expressed desire by repeating it in an exclamatory tone or they are deliberative, addressed by the speaker to himself. These two ideas, of repudiation or of deliberation, have become so far permanently associated with questions in the subjunctive as to leave no clear form of expression for the unemotional question by the speaker in regard to the desire of the person addressed. Thus *quid faciam? quid agam? quid ego credam huic?* are in themselves ambiguous; they may mean "what had I better do?" or "what do you want me to do?" and *egone id faciam? deisne aduorser? abeam?* may be exclamatory repudiations of a previous suggestion or they may be real appeals for direction. It is to remove this ambiguity that *uis* and *uin* are inserted. When *quid faciam?* is addressed to another person than the speaker, it is an inquiry in regard to the hearer's desire and the implied question is more distinctly defined by the expression of the latent element by means of the word *uis*. Thus *quid faciam?* becomes by expansion *quid uis faciam?* and *reddam?* which alone would most naturally suggest a repudiating exclamation, becomes *uin reddam?* and expresses a question about the desire of

the hearer. Compare *quid loquar?* Plaut. *Truc.*, 789, with *quid loquar uis? Epid.*, 584. As in the classes above, the verb of mental action is in point of time a later addition for the purpose of separating the element of will in the subjunctive form from the action expressed by the verb, in order that the interrogation may be more clearly directed upon the will of the hearer. It is a definition of an element already suggested, but not clearly expressed, in the main question.

The same kind of addition is found occasionally in deliberative questions, like *quam esse dicam hanc beluam?* in which *dicam* or *praedicem* takes the mode and the other verb is reduced to an infinitive.

d. In sentences which express some of the many shades of command, permission, entreaty, advice — commonly included under the general term jussive — with the second or third person of the subjunctive, the idea of will or desire is frequently emphasized by the addition of a verb which by its meaning or by its form expresses desire. Illustrations of this form of sentence may be found in abundance in almost any Latin author, but they are of course most frequent in the less formal style. Thus in *animum aduortas uolo* (Plaut. *Capt.*, 383) the desire is expressed in *animum aduortas*, but it is emphasized and defined as a command by *uolo;*[1] in *redde filio: sibi habeat.* ‖ *iam, ut uolt, per me habeat licet* (*Merc.*, 989) the permissive force of the mode is defined by *licet*, as entreaty is frequently defined by *obsecro*, *oro*. When the subjunctive verb is in the third person,

[1] I do not repeat here the suggestion made elsewhere that *uelim* repeats and emphasizes the optative force of the subjunctive. The proof of the correctness of that suggestion would require more space than I can give to it here.

which leaves the part which the hearer is to play largely to implication, the added verb often defines more precisely what was before implied in the circumstances. Thus *dic me aduenisse filio . . . : curriculo iube in urbem ueniat* (*Most.*, 930); in this sentence *ueniat* alone would have implied that the slave was to convey the father's command to his son, but *iube* expressly defines the slave's duty. With *fac*, *facito* the speaker defines his desire that the hearer shall himself see that the action is performed by the third person (*tua filia facito oret*, *Rud.*, 1219; *canem istam a foribus aliquis abducat face*, *Most.*, 854); *sine* not only expresses the speaker's willingness but also his desire that the hearer shall permit the third person to act (*sine mulier ueniat*). In fact, all imperatives, when thus prefixed or appended to a subjunctive, both repeat the idea of desire which is expressed in the modal form and add a second command to the hearer, a command implied less clearly in the subjunctive.

e. In the same way various impersonals define the vague meaning of the first singular of the present subjunctive and occasionally other persons. The first singular is in general incompatible with the idea of will, as is shown by the fact that it is lacking in the imperative and that with many verbs it is indistinguishable from the future. It expresses various shades of determination and choice and is therefore defined by phrases like *optumum est* (*nunc adeam optumumst*, *Asin.*, 448), *necesse est* (*pro hoc mihi patronus sim necessest*, *Poen.*, 1244), *decretum est* and *certum est*. In all of these cases the impersonal phrase defines the meaning of the mode with slight addition, less than is conveyed by *fac* or *uide* or other words with the third person. Parallels to all these subjunctives without the defining addition

may be found in use side by side with the double form of sentence.

f. The negative subjunctive sentence, the prohibition, is defined by a negative verb. In the simplest form, corresponding to *uolo*, this is *nolo*. The germ of a negative sentence, the most undefined form of the concept-group, is the negative itself, not the verb. A prohibition does not arise in the consciousness as a concept of action which is then modified or shifted by the addition of a negative, nor does the expression of a prohibition in language follow any such course. In many cases the verb is so much a matter of course, the action is so clearly indicated by circumstances, that the most empty verb-form is sufficient, as in the English *don't*. The phrase *nolo ames* does not begin with *ames* but with the negative or with the prohibition *ne ames*. Then when the emphasis of an added verb of will is desired, the negative verb *nolo* is used instead of the two words *ne uolo*, just as *non uidi* may become in indirect form *nego me uidisse*.[1]

g. In cases which involve the past tenses it is a matter of indifference whether this process of definition by expansion be regarded as primary or as a secondary process by analogy. Instances are naturally somewhat infrequent and the repetition and definition is less obvious than in the simpler uses with the present. *Stich.*, 624, *dixi in carcerem ires*, is essentially the same as *dico in carcerem eas; Trin.*, 591, *tandem impetraui abiret*, is not different from *impetro abeat* nor is *siui*

[1] This was somewhat carelessly expressed by me in A. J. P., XVIII, 298, so that Bennett (Critique, 71 f.) understood it to mean that *nĕ uolo* combined into *nolo*. The attachment of the negative idea which properly goes with one verb to another verb is of course common enough in many languages; if the added verb happens to have a negative form, that form is substituted for the two words.

uiuerent (*Mil. Glor.*, 54) really more remarkable than *sino uiuant.* The first two of these cases are remarkable for the verb used, but all of them show the same kind of sentence-form that is found with the present and the same kind of definition by the prefixing of a verb.

Upon the kind of sentence-structure of which these groups are illustrations two or three comments may be made.

First, it is clearly marked by certain peculiarities, mainly of form but partly of meaning. The principal modifiers, adverbs and adverbial phrases, objects, dependent infinitives, all belong to one of the verbs; the other verb has only occasionally an adverb and sometimes has the subject of the first verb by prolepsis as its object. And the one verb, usually of mental action, is always an interpretation and definition of the main sentence.

Second, it is impossible to think that these constructions are to be explained by the omission of a conjunction; *uolo abeas* is not for *uolo ut abeas* nor *uin reddam?* for *uin ut reddam?* The structure grew up independently of conjunctions and presumably before conjunctions were in free use. There are only two explanations possible. One is the common one, that two sentences *uin? reddam?* or *uolo: abeas* were put together and then in the process of use came to be thought of as one. But this is not a process by which sentences were ever made. If *uolo* and *abeas* were used together, it was because they were thought together. The other explanation is that given above, that the prefixed verb is chronologically the later and is prefixed as an interpretation of the sentence, as an expression of a meaning latent in the other verb.

Third, the same process shows itself in many kinds

of subordinate clause. With many indirect questions it is almost a matter of indifference whether the leading verb be prefixed or not. There is no difference between *quid est?* and *dic quid est*, between *num laruatust aut cerritus?* and *num laruatust aut cerritus fac sciam*, except that in the second examples the idea is more fully and urgently expressed. Compare the three questions in Ter. *Andr.*, 877 f., *Num cogitat quid dicat? num facti piget? Vide num eius color pudoris signum usquam indicat.* Most indirect questions, perhaps all in the beginning, come by the prefixing of the leading verb. This is to some extent the case with all subordinate clauses which are limited to certain classes of leading verbs. Thus all the simpler kinds of *quin* clause, after *nulla causa est* and like leading sentences, and *quominus* clauses after negative verbal expressions; it is the clause which determines the meaning of the leading verb, not the verb which determines the clause, and strictly it would be more accurate to say that *quin* or *quominus* "takes" certain leading verbs than to say that the leading verb "takes" a *quin* or a *quominus* clause. Lane (Latin Grammar, § 1949) says that "the subjunctive with *ut* or *nē* is used in clauses which serve to complete the sense of verbs of will or aim." This is more nearly correct than the usual form of statement, but it would be still more accurate to say "verbs of will or aim are prefixed to clauses with *ut* or *ne* to complete (or define) their meaning."

It is sometimes said that in sentences of this type and in indirect questions and *ne* clauses there is a shift of person, mode and tense[1] and that by means of the shift the verb-form becomes a sign of partial subordination. Schmalz makes a distinction between the use of

[1] Schmalz[3], § 267.

credo, *scio*, *certum est*, *fac*, *nolo ames*, *capias suadeo*, and similar verbs with the indicative or the subjunctive, on the one side, and *siui uiuerent*, *bonum haberet animum iubebant*, on the other side; the former he calls simple parataxis, the latter he regards as a middle stage between parataxis and hypotaxis, because they involve a shift of person, mode and tense. What is meant by the shift of mode is not quite clear, since many of the examples under simple parataxis have the subjunctive (*capias suadeo*, *nolo ames*), but the difference between the second person and the third, between the present tense and the imperfect is not precisely a shift. The fact is rather that the third person, for reasons given above, is less direct as an expression of desire than the second person and carries with it, when used in independent sentences, various latent suggestions in regard to the action of the second person, the hearer, which are not carried by the second person of the verb. When the thought is partially analyzed, these latent suggestions are expressed by the added verb, *fac*, *sine*, *iube*, and the subjunctive form is left to some extent meaningless. It is therefore more ready to assume a new meaning, the partial subordination which the prefixing of a verb introduces, than the direct and distinctly jussive second person of the verb would be. This may properly be called a shift of meaning, brought about by the prefixing of *fac* or *sine*, by reason of which the combination *iube ueniat* appears to be more completely fused than is *uolo abeas;* in the latter, *abeas* appears to have very much the same meaning that it has when it is used alone. But there is no shift of person.

It is not at all improbable that *siui uiuerent* is a combination by analogy and is therefore less direct than *sino uiuatis*, but here also the subjunctive form is in use

in independent sentences, though not in frequent use, to express or suggest the idea which is more analytically expressed by the addition of *siui*. It is easy to arrange a series of decreasing directness, like *uiuatis — sino uiuant* or *sino uiuatis — siui uiuerent*, just as it is easy to bring a *ne* clause with the imperfect subjunctive in narrative back to a prohibition, but the mind of the writer went through no such series. To him the passage from *uiuerent* to *siui uiuerent* was just as simple as that from *ueniat* to *iube ueniat*.

While there is, therefore, a certain shift of meaning brought about by the prefixing of a verb to the subjunctive form and while this shift is greater in the case of the third person than in the second person and perhaps in the past tenses than in the present, there does not appear to be in a strict sense a shift of person or tense or mode. The subjunctive (and especially the third person) contains elements of meaning which lend themselves readily to the partial expression of subordination, but it does not of itself express subordination.

Definitions of parataxis, like definitions of the sentence, have been many. But definitions of the sentence do not to any considerable degree affect syntactical work, since the general understanding of the word is sufficiently clear to admit of its use without confusion. Such definitions are in truth only a kind of record of the progress made toward an understanding of the nature of language. But the word parataxis is used with such wide differences of meaning, with so much difference of understanding as to the field covered by it, that some general agreement is almost a necessity, if the word is to be continued in use as a technical term. Differences of view in regard to the nature of

an object designated by a technical term will always exist and may exist without confusion, but differences in regard to the extent of its application and the range of phenomena designated by it, such as appear to exist in regard to the varieties of sentence-structure designated by the word parataxis, result in confusion and waste.

Like any other phenomenon of language, parataxis may be looked at from the psychological side or from the linguistic side, or an attempt may be made to combine the two. The more recent definitions, in harmony with the general drift of philology, are psychological. The remarks of Paul, *Principien*, 2d ed., p. 121 f., 3d ed., p. 133, which are sometimes referred to as authoritative on this point, do not constitute a definition and were probably not so intended. The last sentence, "es ist kein anderer begriff von parataxe möglich als der, dass nicht einseitig ein satz den andern, sondern beide sich gegenseitig bestimmen," is a mere remark, correct enough, but not precise and not intended to be a precise definition. It applies to any two sentences in juxtaposition or even to the two parts of a conditional sentence. The distinction made between a sentence which exists for its own sake, *nur seiner selbst willen*, and one which exists primarily in order to modify another would be incorrect in principle, but it is in fact immediately modified by Paul. The sentences which follow and which conclude with that quoted above practically withdraw the distinction, leaving only a general impression that parataxis may be partially defined by contrasting it with complete independence of thought.[1] On this point enough has been said above.

[1] See also the criticisms of this paragraph by Herrmann, K. Z., 33, pp. 481 ff., and Ries, *Was ist Syntax?* p. 150, D. L. Z., 49 (1888), 1785.

The same general idea, that concept-groups may be in juxtaposition without relation, seems to be involved in Bennett's statement:[1] "In order to exhibit parataxis the two sentences assumed to have the paratactic relation must each be capable of possessing an independent value" or (in the next sentence) "capable of functioning alone." The phrase "capable of possessing an independent value" is not quite free from ambiguity. Independence in the sense of absolute separation from what precedes and what follows, absolute freedom from influence by other concepts, is not possible for any concept or concept-group. The succession of mental processes is continuous, unbroken, and every concept-group is influenced by those which precede it. The only characteristic of a concept-group which approaches independence is a certain degree of completeness, such that the same group may recur a second time to the mind. But this is not a characteristic of a sentence-group alone; a phrase has the same kind of completeness. The concept represented by *it goes without saying*, *up to date*, *in touch with*, may recur in all sorts of connections and the words may be used with wearisome iteration. In respect to this kind of completeness — which is not independence at all — a word differs from a phrase and a phrase from a sentence only in degree, not in kind.

It must be said also that a concept or concept-group, whether it is represented by a word or a word-group, is always influenced by its surroundings, as the writing of a particular word is affected by the position in which

[1] Cornell Studies, IX, Critique of Some Recent Subjunctive Theories, p. 66. Bennett refers to the passage of Paul's *Principien* discussed above, but I do not find in Paul's remarks the meaning which Bennett attaches to them; on the contrary, Paul seems to be guarding against such an understanding of his words.

the pen was left by the preceding word. In one connection a word or word-group has one meaning; in a different connection it has a different meaning. The fact that the meaning of *abeas* is shifted slightly when *uolo* is prefixed to it does not show that *abeas* is subordinated to *uolo*, for the meaning of *uolo* also is shifted; it is not the same as in *uolo aquam*. But in truth, as a test to distinguish between parataxis and subordination, the capacity to "possess an independent value" or to "function alone" is altogether vague and useless.

The main difficulty in all psychological definitions of parataxis or in all attempts, whether in the form of definition or not, to determine upon psychological grounds what is parataxis and what is not, is that they involve a transfer of logical or syntactical terms and conceptions to the sphere of psychology, where they have no meaning or a different meaning. A definition of parataxis requires that it be discriminated on the one side from coördination and on the other side from subordination. The terms coördination and subordination are properly logical terms. Within the field of abstract logic, in the realm of precise definition, they have a place and meaning. The transfer to the field of language does not involve any confusion as long as they are used in a somewhat general way. But it is increasingly evident that all sentences cannot be crowded into one or the other of these categories and that there are many sentences which we do not know whether to call subordinate or independent. This is a common-place of modern linguistics. This difficulty is not to be met by more precise definition of the terms, but by recognizing the fact that the terms and the conceptions which underlie them belong to another science and are not strictly applicable to the facts of language, as they are

not applicable, for instance, to organic life. As convenient general terms, coördinate and independent and subordinate have their place in syntactical nomenclature, but they break down and become positively injurious and hampering when they are pushed into details which require scientific precision. This is true even of their application to written language; it is doubly true of spoken language.

But even in this limited way these terms are still more inapplicable to the phenomena of mental life.[1] The succession of processes which makes up the life of consciousness is so inextricably interwoven, so bound together by the most complex network of relations, that logical terms have no place in the science which describes it. The conceptions which they express belong to other fields of thought. Concept-groups may bear to each other a relation which has some resemblance to coördination when both are parts of a single larger group, or, when one group is associated most closely with a single member of another group, the relation may be in some respects like logical or syntactical subordination. But it is only a resemblance, a figure, by which we attempt to describe in simple and known terms a very complicated phenomenon. No psychologist would use the terms in any other than a general sense, even more general and less precise than their syntactical sense.

Psychological definitions of parataxis therefore involve two liabilities, almost certainties, of error. The mistake of transferring technical terms, which are imperfect even in their application to language, to the psychological sphere is natural enough to the syntac-

[1] This paragraph I owe in large part to my colleague, Professor Ladd.

ticist who is seeking for the basis of sentence-structure. But it is a mistake, and it would not be made, it is safe to say, by a psychologist, for he would not predicate independence or coördination or subordination of mental states and processes.[1] The other error, of supposing that the relation between concept-groups, if it could be correctly defined, would necessarily determine the syntactical relation of the corresponding word-groups, is one which the student of language is peculiarly bound to avoid. Translation from English into Latin or from Latin into English is a reminder of the fact that sentence-structure corresponds to concept-relations only in a general way and with many exceptions.

Parataxis is a phenomenon of word-combination, of sentence-structure, and it should be defined by its linguistic characteristics, not by the accompanying train of thought. If definition by description of its nature is impossible, as it is at present, then the alternative is to fix the limits of the term by describing the kinds of sentence-structure which are to be understood as covered by it. In determining the extent of the field several considerations are to be taken into account. *First*, so far as there is any harmony in the present usage of the word, it tends toward the inclusion of all forms of sentence-structure in which two finite verbs are brought into close connection without a subordinating word to define the relation. This is not meant as a definition but only as a rough statement of the kinds of sentence-form cited in illustration by Draeger, Kühner, Schmalz, Lane and by most school-grammars which deal with this kind of sentence. This is because the grammars present the facts and their classifications are

[1] See the remarks on parataxis in Wundt, *Völkerpsychologie*, I, 2, especially p. 302, bottom.

therefore more likely to be based upon the facts; the confusion comes in with the attempt to find a psychological explanation. This considerable degree of harmony in the use of the word affords a natural starting-point for a definition. *Second*, the purpose for which it is chiefly desirable that parataxis should be carefully studied is that through it the subordinate clauses may be more fully understood. It is therefore desirable that any kind of sentence-structure which is the parent of a subordinate clause should be included within the field. Thus *fac ualeas* must be studied in order to understand *fac ut ualeas* and *optumumst maneam* in order to understand *bonum est ut*. *Third*, it is perhaps worth while to take into account the nature of the material worked in. A written language gives only hints of the musical elements of speech. The study of forms of sentence which depend mainly upon these for the expression of relation can best be carried on in the spoken languages. It is an economic waste to attempt to study this subject in material drawn from Latin or Greek.

Having these considerations in mind, the term parataxis may be applied in Latin syntax to all forms of sentence-structure in which the relation between two finite verbs is suggested by order, by the inflectional form or by single words other than coördinating or subordinating pronouns and conjunctions. It covers all that lies between coördination and the suggestion of relation by musical means, as the upper limit, and the expression of relation by subordinating words as the lower limit. Some such definition or agreement in regard to usage is at present possible; definitions which deal with the nature of parataxis are at present impossible.

But there is nothing final in such a limitation of usage as that suggested above. At the present state of knowledge all discussion of parataxis is necessarily tentative, and it must remain so until a larger amount of orderly knowledge of the facts is accumulated. In some fields of syntax the facts are known and whatever uncertainty remains is in regard to the interpretation of the facts. But in regard to parataxis the reverse is true; theorizing has outrun knowledge. There is not in existence a single complete and properly arranged collection of the facts bearing upon parataxis from any Latin author, though there are some collections which have considerable value. It is much to be desired that complete collections should be made from Plautus, Terence, Cicero's letters and speeches, Pliny's letters and perhaps from Petronius and Apuleius. In making such collections it will be a mistake to start with a narrow definition of parataxis; that method would supply material for the defence of a position assumed beforehand, but it would not greatly advance knowledge. Some limitation of the field would undoubtedly be necessary in advance, but it should be as broad as possible, covering all the phenomena of sentence-connection except that by coördinating or subordinating conjunctions and pronouns. In the arrangement of material the program of E. Becker (see note, p. 133) might well serve as a model as far as it goes. The object to be kept in view should be the determination and identification, as far as possible by description of form, of the most minutely differentiated species and varieties of sentence-connection. In this part of the work much suggestion can be had from Hentze's programs.

When a basis of solid knowledge, minute and accurate, has been laid, it will be possible to approach the subject of parataxis with more confidence; until that time all discussion of it is necessarily somewhat in the air.

VII

SUBORDINATING CONJUNCTIONS IN LATIN

The problem of the subordinating conjunctions in Latin is, in brief, to account for the peculiarities of their meaning and use by following their history through the process of adaptation by which they acquired subordinating force. The complexity of the problem is great, but two points are clear: something can be learned by following conjunctions back to their origin and more, probably much more, by considering the particular kind of paratactic association through which each acquired subordinating force. In other words, the facts must be interpreted both historically and psychologically.

As to the origin of conjunctions, the fact must be faced that insufficiency of data will always greatly limit the amount of knowledge to be had from this source. Of the more important subordinating words nearly all are in free use in Plautus with the conjunctional force fully established. The clause which follows is in many cases not yet fixed or certain forms of it have not come into definite and regular use. This is especially true of the mode, which in Plautus may not be the same as the mode in classical Latin. Thus the *quom* clause, some of the *qui* clauses, some forms of protasis with *si*, and a few minor clauses have not in Plautus the definite and stereotyped form which they

take on in later Latin. But this is not a difference which greatly affects the meaning of the conjunction. That meaning was fixed and the process which determined it was mainly concluded in a period for which we have no data. The historical study of the acquisition of subordinating force in Latin is therefore a difficult one, because it must rest upon inferences of varying degrees of probability based upon the form of the conjunction or upon isolated survivals of archaic sentence-structure in Plautus and the later Latin.

Inferences from the form take one of two directions; they have to do with the stem or with the inflectional termination. Of these two lines of inquiry that which relates to the stem gives the more trustworthy results. It is clear enough that the large majority of Latin conjunctions come in one way or another from *quis*. The only conjunctions about which there can be reasonable doubt are those which have lost the initial *k* sound, *ubi*, *unde* and *ut*. The relationship of *ubi* and *unde* is indeed scarcely doubtful, in view of *ne-cubi*, *si-cubi*, *ali-cubi* (Ter. *Adelph.*, 453), *ali-cunde*, and the interrogative and relative uses of both words harmonize fully with the hypothesis of a derivation from *quis*. The evidence as to *ut* is less clear (see below). Of the conjunctions which come from other sources *ne* and *ni* are sure enough, *modo* and *licet* are clear, *simul* (*ac*) is defined by its continued use as an adverb, and only *si*, *dum*, and *donec* can be considered to be of doubtful origin. Even these are in part defined by the relationship of *si* to *sic* and by the enclitic use of *dum* with imperatives and with *uix* and *non; donec* is the only conjunction which defies scrutiny. So far, therefore, as the meaning of Latin conjunctions depends upon the stem, the ground is reasonably solid.

But with regard to the case-form or other inflectional terminations of conjunctions the ground is less firm. *Quod* is quite certainly an accusative of compass and extent, though there have been attempts to connect it with the ablative; *ubi* is a locative, *qui* (*quin*) is an instrumental or at least an ablative of manner, as is *modo; dum* and *quom* appear to be accusatives, though *quom* is sometimes called an instrumental and by some scholars is identified with the preposition *cum; quam* has the form of an accusative feminine. Some other conjunctions may in like manner and with varying degrees of probability be connected with case-forms. But there is scarcely one of these connections which is not open to question and indeed most of them have been questioned. Few of them can be regarded as a part of the accepted doctrine of morphologists. This, however, is less important than is the fact that few of these connections, even if they were fully established, would be of value in determining the meaning of conjunctions. They are made almost entirely on morphological grounds and in many cases they add to rather than remove the semasiological difficulties. Thus if *si* is a locative, that fact does not in any way throw light upon its use as an adverb meaning *so*, *thus*, or upon its conjunctional force. The locative force of *uti*, if this explanation be accepted, makes it necessary to regard the few scattered instances of *ut* in the sense of *where* as survivals of an early meaning and to derive all the *how*, *that* and *as* meanings from the locative, and this necessity really increases the complexity of the problem. The hypothesis that *quia* is an accusative plural, which rests upon a slight resemblance, upon the analogy of *quod* and upon a single case of *quiapropter* and is opposed to the important fact that there are no plural

adverbs or conjunctions in Latin except those compounded with prepositions (*postea*, *propterea*, etc.), is useless for syntactical purposes, since no trace of plural meaning has ever been found in *quia*. The form of *quom* and *dum*, if it be an accusative of duration of time and connected with *tum*, *nun-c*, would indeed contribute to the history of its meaning by placing the temporal use above the explicative or causal, but the accusative of duration of time is found only with a limited range of nouns of time, and there is no sufficient warrant for thinking that this idea was ever so associated with the accusative ending that it could be carried over to a pronoun. In fact, it must be regarded in all these instances as doubtful whether the case-form is more than a formal survival from a period when inflectional endings had less definite meaning or perhaps other meanings than those which are associated with them in historic times. This is almost certainly true of the feminine accusative *quam*. It must date back to a time when the terminations which later assumed the function of expressing gender were still inexpressive or carried other meanings. There is no other way of accounting for such apparently feminine forms as *quam*, *qua*, *tam*, except by the unsatisfactory expedient of supposing the ellipsis of some feminine noun. It is better to regard both gender-forms and case-forms as survivals without definite gender or case meanings and all the more because they are appended to the stems of pronouns, which are empty of meaning.

It is worth while to recognize frankly the limitations of our knowledge of the early history of conjunctions. In order to understand a shift of meaning it is necessary that the starting-point of the shift should be known, known as meanings of words are known, by

contemporary literary evidence. A merely possible or plausible inference will not suffice.

It follows from this that the history of the process by which many conjunctions acquired the subordinating force cannot now, perhaps cannot ever, be raised above the level of hypothesis. But this is not true of all conjunctions. There still remain some which, by reason of their comparative lateness of appearance or from the survival of their adverbial uses, afford material for the study of the acquisition of subordinating force. They are especially those which are not connected with *quis*, but come from other sources. Thus *modo* is known from three sides, from its connection with *modus*, from its well-defined case-meaning and by its survival as an adverb. In the same way *licet* is good material, and neither *licet* nor *modo* is less valuable because it does not fully acquire the force of a conjunction, since there is abundant material for the later stages of the process. The fact that *ne* and *ni* are no longer in use as general negatives does not greatly affect their value as material; the evidence for their early use is broad enough. *Simul* and to some extent *dum* survive as adverbs or in composition, but the fact that the etymology of *dum* is not certain and that the meaning of its case-form is doubtful accounts for the uncertainty in regard to its earliest conjunctional use. Of the conjunctions derived from *quis* several do not go through the process of acquiring the subordinating function. Thus *quod* inherits this force from the relative *qui* and therefore, in spite of the fact that it is in the process of changing from pronoun to conjunction in Plautus, is not available for the questions now under consideration. *Quamuis* also carries over at least a predisposition toward conjunctional force from *quam*. The best illustration,

and one in almost all ways satisfactory, is found in *quin*. Its etymology is plain, its case-form is known, it is in frequent use as an interrogative adverb both in the form *qui* and in the form *quin* and, while its conjunctional use begins before Plautus, it is still so recent that many instances of the earliest kinds of sentence-form (*nulla causa est quin*, etc.) are to be found. In consequence of the abundance and variety of the material, the history of *quin* is more completely and more surely known than that of any other conjunction.

Within this somewhat limited range two different but related problems are to be worked out. They are to determine what elements in the meaning of the adverb or particle or case-form survived the shift of meaning and what elements contributed to that shift, or, in other words, to distinguish between the stable and the unstable elements in the meaning of the adverb or case-form. In general, it may be said that where a distinct temporal or locative or modal meaning was expressed by the adverb, that shade of meaning is found also in the conjunction. The temporal meaning of *dum* in *nondum*, *uixdum*, goes over into the conjunction; the locative meaning (locative in space or time) which *ubi* has as an interrogative adverb it preserves as a relative adverb, and the modal or causal force of the interrogative *qui* and *quin* is still to be traced in the conjunction *quin*. So *quo?* "whither?" retains its meaning in *quoad* and the analogy of *tum* suggests that the temporal force of *cum* is a survival, whether it comes from the case-form or from some other source. Temporal and local associations might naturally be expected to be persistent. On the other hand, it is the stem-meaning which remains stable in *modo* (from the adverb *modo*

and only indirectly from the noun), in *licet*, in *simul* and in *ne*, *ni*.

The determination of the unstable elements is more important. In every word which underwent the shift from adverb to conjunction there must have been some element of meaning which predisposed the word to such a shift, something which rendered it more available than other adverbs for use in associations which gave it the connecting force. In the case of some adverbs it is the ordinary use of the word, involving its total meaning, which fits it for conjunctional use. Thus *modo* as an adverb is used especially, though not solely, to limit groups of words, the limitation of single words being expressed in part by *solus*, *unus* and other pronominal adjectives. *Modo* is thus peculiarly the word of limitation for clauses, and is fitted for association with whole clauses which contain in themselves some element of limitation. *Simul* as an adverb implies the setting together of two events in time, the temporal element being perhaps an acquired one, but acquired in the adverbial stage. But time is especially associated with action and words of time especially associated with verbs. These two elements, of time and of occurrence together, make *simul* a suitable word for expressing as a conjunction the simultaneousness of two actions. In other cases, it is some special weakening or shifting of the usual force of a word which fits it for the conjunctional function. The verbal force of *licet* is weakened by its use in answers, as a bare term of assent, *e. g.*, Plaut. *Rud.*, 1212 ff., just as *fiat* becomes in like circumstances a mere term of assent. A word which is thus used inevitably loses much of its meaning, and it is this weakening that prepares *licet* for association with sentences of assent. The history of *quin* includes

partial loss of one function with acquisition of a different shading. It is not found as a simple interrogative, inquiring as *cur non* does for the reason for an action, doubtless because of its inflectional form, which is less definite than *quor* (*quare?*). An inquiry in regard to motive or reason frequently carries with it the implication that no sufficient motive or cause exists. Thus *quin* is associated with exclamatory questions, *quin dicis? quin abis?* which, because of the implication that no cause exists to prevent the action, have an imperative force. And the interrogative force is still further weakened by the extension to *quin dic*, *quin abi*. It is the combination of weakened interrogative or exclamatory power with urgent denial of cause for not acting that fits *quin* for association with *nulla causa est* and similar phrases. The association of *dum* with imperatives, like the similar use of *modo*, must have weakened its adverbial force and this weakness is also attested by the disappearance of the word as an independent adverb, though this was no doubt caused in part by the conjunctional use. But the same elements of meaning which fitted it for conjunctional use also unfitted it for use as an adverb, just as the survival of *simul* and *modo* as adverbs hindered their free use as conjunctions. In a general way it is probable that the prevailingly exclamatory use of *ut* is a step toward the conjunctional function; the simple interrogation is better expressed by *quomodo* and similar compounds. This would be independent of the question whether *ut* is derived from *quis* or from some other source. With regard to most of the conjunctions derived from *quis* and to the relative *qui*, it is possible that they passed through an exclamatory stage, but it is also possible that they acquired conjunctional force through corre-

lation, and perhaps still more probable that different paths were followed by different words or even by the same word.

The next stage in the history of a conjunction is the somewhat complex process of acquiring the subordinating function by association with a sentence which stands in close relation to another sentence.

One of the simplest cases, requiring but a slight shift of meaning, is that of the indirect question. The steps by which a direct question becomes indirect by the prefixing of *dic*, *dic mihi*, *eloquere*, *rogo*, *uolo scire*, *scire expeto*, *fac sciam*, *uiso*, *expecto*, and other more elaborate expressions, have been admirably set forth by Becker.[1] There is no such intermediate step as is sometimes assumed, like *dic: quid est?* or *scire uolo: quoi reddidisti?* in which the two sentences are entirely separate, with a strong pause between them. The leading verb, grammatically, is an after-thought by which the speaker expresses the urgency of his question or the attitude in which he stands toward the question. This is defining parataxis. It should be noted here that the question is subordinated only in a grammatical sense. The thought of the question is not less important than that of the prefixed verb; it is, on the contrary, more important; it is the germ of the whole sentence, and this form of sentence (*dic quid est*) is an interesting illustration of a complete reversal, in the grammatical structure, of the relative importance of two concepts. It should be noted also that the change of function of the interrogative word is extremely slight, less than it appears to be in translation, because the English changes the order of words in the indirect question.

[1] Studemund's *Studien*, I, 1, 113 ff.

What is it? becomes *Tell me what it is*, and the change affects our feeling in regard to the interrogative.

The subordination of *quin* comes about in a like manner, though the material for illustrating it is less abundant. By the side of its exclamatory and imperative use with the indicative it might be expected to have a repudiating use with the subjunctive, and a few such cases occur, the only sure one in Plautus being *Mil. Glor.*, 426, *men rogas, homo qui sim? ‖ quin ego hoc rogem?* A few other cases occur in later Latin. The rarity of the construction is due in part to the general causes which make *quin* rare with the first person (in which these repudiating questions would usually be found), in part, and still more, to the use of the more explicit *quid ni* for these repudiating exclamations. The infrequency of the construction, however, must be acknowledged; it is the sole gap in the history of *quin*. In association with such questions, of which it forms an integral part, *quin* has the meaning *why not* with the implication that there is no reason against the action. This implication is more fully expressed by *nulla causa est*, *quid causaest*, *numquae causa est* and similar phrases, as the urgent desire to have an answer to the question *quid est?* is expressed by prefixing *dic*, *scire uolo* and similar expressions. In such sentences *nulla causa est* is not the answer to the question *quin uerberes*, *quin iubeam;* these are not questions, but repudiating exclamations requiring no answer, and the main clause almost always precedes the *quin* clause. The words *nulla causa est* represent more definitely an idea already contained in the *quin* sentence. As is always the case, the prefixed sentence is comparatively simple and the modifiers, object, time, cause, dependent infinitive, go with the *quin* clause. The more

elaborate leading sentences, which are relatively rare in Plautus, are a later development after the subordinating force had become firmly attached to *quin*, but they retain a trace of their origin in the fact that they always contain a negative idea, the negative which in the process of expansion is repeated from *quin* itself.

The history of *ne* in its transition from negative adverb to a conjunction of negative purpose is somewhat more complicated than that of *quin*, as might be expected from its wider use and from the fact that it is not confined to so narrow a function or to so restricted a class of leading clauses. It undergoes no preliminary weakening of meaning except the restriction to sentences of will or desire; this is doubtless a necessary first step, for if it had remained in use as the general Latin negative, it could not have added to this large function the equally large and distinct function of expressing subordination. But it is true of *ne*, as of the interrogative pronoun and of *quin*, that the shift of meaning, at least in its first stages, was really much less than English translations would seem to imply. As we do not precisely translate it in its use in prohibitions by *not*, which makes no distinction between *non* and *ne*, so *lest*, *that not*, *in order that not*, express a wider divergence from the negative adverb than actually took place.

There were, apparently, two distinct processes of association through which *ne* acquired the subordinating force. In the first place, the prohibition was expanded by a defining paratactic prefix. This has been illustrated above with non-negative sentences (pp. 132 ff.). The simplest kind of prefix with *ne* is in the imperative: *uide ne sies in expectatione; at uide ne titubes; uide ne me ludas; semper curato ne sis intesta-*

bilis. In these instances the imperative sums up the prohibition in such a way as to increase its force.

But in many cases the prefixed phrase also adds something to the sense, not only defining and emphasizing the prohibition, but also amplifying the idea by introducing other elements which harmonize with it. Thus *monendu's ne me moneas; caue ne cadas; tu cauebis ne me attingas; circumspicedum te, ne quis adsit arbiter; da . . . operam, ne quo te . . . occupes*. But it will at once be seen that the introduction of other elements of meaning destroys the simplicity of the relation between the prefix and the prohibition, so that *ne* is no longer felt as the negative of a prohibition, but as a conjunction, carrying in part the relation between the leading verb and the clause. It will be seen also from these few examples, which might be much increased in number, that the addition of other elements to the leading clause affects to some degree the nature of the relation; it begins to lose the colorless character of, *e. g.*, *uide ne titubes* and to acquire shadings of purpose. Some of the examples given above, *circumspice ne quis adsit*, *da operam ne occupes*, might even, in the confusing and inaccurate functional division of clauses, be called purpose clauses. In fact, they are clauses depending upon verbs which in part repeat and define the meaning of the prohibition, and in so far they are object clauses; but the verbs upon which they depend have other elements of meaning beside that element which repeats and defines the prohibition, and, in so far as this is the case, suggestions of purpose are conveyed, and those who insist upon having names for clauses are justified in calling these purpose clauses, provided only it is remembered that the element of purpose varies greatly according to the meaning of the leading verb.

To pursue this line of inquiry further is impossible here, but it would not be difficult to show that in a very large proportion of *ne* clauses at all periods the meaning of the leading verb contains an element which defines and repeats the prohibition. Wherever this is the case, with verbs of saying, of commanding, of precaution and prevention, of wishing and desiring or fearing, the clause is an outgrowth of that kind of paratactic definition which appears in its simplest form in *uide ne*, *fac ne*.

It is of course impossible in this kind of clause to mark off a distinct paratactic stage. In *fac metuam*, if this phrase were in use, the absence of a conjunction may be held to indicate the parataxis, but in *fac ego ne metuam* the adverb-conjunction is present from the beginning and while it may be regarded as certain, on *a priori* grounds, that *ne* would sometimes be felt and used here as a pure adverb, there is nothing in the written words to determine whether this is the case or not. It is therefore a matter of indifference whether the *ne* sentence be regarded as paratactic or as a dependent clause.

The second kind of sentence-structure through which *ne* acquired subordinating force leads directly to the expression of purpose. The earliest indications of this appear in sentences which are grammatically independent. In a few cases in Plautus the prohibition stands alone or without a preceding context in the same speech, but in most cases it is preceded either by an imperative (or its equivalent), or by a statement. When an imperative or other expression of will precedes, the two sentences are in close relation, expressing two different aspects of a single concept-group. That is, the desire of the speaker does not change within a few words;

it remains the same, and the second sentence merely repeats the expression of desire in a different form. Thus *moderare animo: ne sis cupidus* (*M. G.*, 1215) is a double expression of the same concept-group. So, *i, sequere illos: ne morere*, *M. G.*, 1361; *uide ne sies in expectatione: ne illam animi excrucies*, *M. G.*, 1280; *da . . . mi . . . ueniam: ignosce: irata ne sies*, *Amph.*, 924; *emitte sodes: ne enices fame: sine ire pastum*, *Pers.*, 318. In some of these cases, where the change of expression is greatest, a trace of purpose appears to underlie the words; thus *M. G.*, 1361, might easily be taken to be "follow them in order not to delay them" or *M. G.*, 1280, might be "don't keep her waiting lest you torment her." In spite of the grammatical independence, the relation between the sentences is felt, though not distinctly enough for certain identification.

This is equally true where the preceding sentence is a statement. The statement gives the ground for the prohibition or the prohibition expresses the object, *i. e.*, the purpose, of the statement. Thus *noui: ne doceas*, *Aul.*, 241; *non morabitur: proin tu ne quo abeas longius*, *Men.*, 327 (the relation is in part expressed by *proin*): *istic homo rabiosus habitus est in Alide: ne tu quod istic fabuletur auris inmittas tuas*, *Cap.*, 548. In some instances the *ne* sentence expresses the purpose of the speaker in making the previous statement, not the purpose of the act stated: *dormio: ne occlamites*, *Curc.*, 183, which is either "I'm asleep: don't make such a row" or "I tell you that I am asleep in order to induce you to stop your shouting." So *uapulare ego te uehementer iubeo: ne me territes*, *Curc.*, 568, which differs from *uapula: ne me territes* only in having the verb of saying expressed. In *Curc.*, 565, *nil* (*agit*) *apud me quidem — ne facias testis — neque equidem debeo quic-*

quam, the *ne* clause is a parenthetic insertion and shows more clearly its connection with clauses like *ne erres*, *ne frustra sis*, *ne te morer*, which are sometimes called parenthetic clauses of purpose. Instances of this kind are frequent in conversational Latin. It is probably in part upon their occurrence that the statements quoted above (p. 116), that in parataxis two independent sentences come to be thought of as one, are founded, but the facts do not bear out that interpretation. The relation between the two sentences is not expressed in any word, and therefore the two sentences may be regarded as independent in the grammatical sense, but the relation between the two concept-groups is just as real and was probably as strongly felt as if it had been expressed in some single word. It is suggested by the juxtaposition of the sentences and was doubtless felt in the tone and the length of the pause, though these can now only partially be recovered. In *Amph.*, 924, the editors separate *da . . mi . . ueniam, ignosce, irata ne sies* by commas, but in *Pers.*, 318, *emitte sodes : ne enices fame : sine ire pastum*, they use colons; the length of the pause and the inflection of the voice, however, cannot be very different in the two cases. These cases therefore illustrate the kind of sentence-relation in which there is no expression of the relation except by the musical elements of speech and by the mere contiguity, while the fact of the relation itself is nevertheless perfectly certain. No one could use *noui : ne doceas* without relation between the two thoughts nor could a hearer easily fail to grasp the relation in a general way. The nature of the relation, however, is undefined, or at least is not defined in terms which discriminate between coördination or parataxis and subordination. It is sufficiently represented either by "I know and don't want you to teach me" or by "I

know, and I say this lest you should try to teach me" or by "I know; therefore (*proin*) don't teach me." The attempt to define this relation psychologically by deciding upon one or another of these ways of expressing it would result merely in a forced and arbitrary selection which would not carry conviction to another interpreter and which would involve the neglect of other equally real though perhaps less evident elements. The relation is real, is felt by speaker and hearer, but it is not defined. It is not the result of some process of gradual melting into one, some coming to be thought as one; that is, expressed in a rather inaccurate way, a description of the process by which the sentences are brought together, but not in any way a description of the psychological situation.

It is not possible with this kind of parataxis, any more than it is possible with defining parataxis, to draw a line between the paratactic structure and the full subordination, and for the same reason, because it is impossible without the help of the spoken language to tell just when *ne* begins to be associated with the concept of relation. But illustrations may easily be found among clearly subordinate *ne* clauses, which are plainly like the independent sentences given above. Thus *Aul.*, 340, *si quid uti uoles, domo abs te adferto, ne operam perdas poscere*, expresses in the imperative one view of the command, in the *ne* clause another; compare *i, sequere illos, ne morere*, with *intro abite atque haec cito celerate, ne mora quae sit, cocus quom ueniat* (*Pseud.*, 168). With *Curc.*, 568, compare *Poen.*, 1155, *audin tu, patrue? dico, ne dictum neges.* Similar cases are *Rud.*, 443, *dabitur tibi aqua, ne nequiquam me ames; Aul.*, 54, *oculos . . ., ecfodiam tibi, ne me obseruare possis; Rud.*, 1013, *at ego hinc offlectam nauem, ne quo abeas; Cas.*, 394, *nunc tu, . . .*,

ne a me memores malitiose de hac re factum aut suspices, tibi permitto: tute sorti, "don't say or think that I 've cheated, for I leave the drawing of lots to you." These are all, of course, *ne* clauses and are to be so taken, but a slight change in the phrase or in the thought would put them back into *ne* sentences, independent of the leading clause so far as structure is concerned.

The acquisition of the subordinating function by *ni*, through association with a conditional clause, has been followed in the early Latin by Oskar Brugmann.[1] Its history is quite different from that of *ne;* it does not pass through the stage of defining parataxis, evolving its own leading clause out of itself, nor has it precisely the same kind of relation to its context that a prohibition bears to a preceding imperative or indicative sentence. Between a *ne* clause and a preceding or following statement there is no resemblance in the form of the sentences; the relation expresses itself in other ways. But the relation of the *ni* sentence to its context, before the conditional function is attached to *ni*, is one of correlation. The essential point in it is that the resemblance in structure is the result of the speaker's retaining the first member vividly in memory while he is uttering the second member and by this means inducing the hearer to recall the first member as he hears the second. The two concept-groups are thus set in contrast with each other. This does not imply that the relation between them is necessarily that of protasis and apodosis; it is an undefined relation which may be one of mere comparison as to quality (*talis — qualis*) or as to quantity (*tantus — quantus*) or degree (*tam — quam*). In the case of *ni* it was in part at least helped toward precision by the subjunctive mode, which of itself sug-

[1] *Ueber den Gebrauch des Condicionalen Ni . . .*, Leipzig, 1887.

gests supposition, concession, condition. The relation between the *ni* sentence and the corresponding and correlated member was therefore existent without regard to the presence of *ni* and was imperfectly suggested. Its transfer to *ni* was due in part to the position of the negative before the verb and frequently at the head of the sentence, and in part to the fact that, in a condition, the negative, if it belongs to the sentence as a whole and not to some single word in it, naturally associates itself with the conditional particle because that particle also goes with the clause as a whole. The negative particle negatives the conditional relation and therefore the two are associated together.

The association of *quamuis* as a conjunction with a concessive sentence differs from that of *ni* in two respects. The relation between the sentences is not correlative and *quamuis* is not, as *ni* is, a necessary part of the sentence with which it is associated. As to the relation between the two parts of the sentence, it is expressed, when *quamuis* is not used, in the mode only, being in this one respect like the *ni* clauses with the subjunctive. Not that the subjunctive is a mode of subordination, but the use of the subjunctive is in many cases by its necessary relation to the context expressive of a proviso or concession. But there is no suggestion in the form of sentence of any kind of correlation, and it is unsafe to suppose that sentences have been correlated unless the supposition is supported by a general likeness in structure between the two members. The other difference between *ni* and *quamuis* is that the former is necessary to the sentence in which it occurs; without it the sentence would have an entirely different meaning. This is true also of *quin* and of *ne*. But *quamuis* is an addition to a sentence which is a fairly

adequate expression of the thought without *quamuis*. The addition of this word is only a further expression of an idea already contained by implication in the mode or in the mode with other accessory expressions. In this respect *quamuis* is like *licet* and its addition to the sentence is the result of expansion. It would be inexact to call it defining parataxis, but it is of the same general nature, definition by expansion. Probably its verbal nature is not wholly lost until it begins to be confused with *quamquam*, and the verbal force would perhaps predispose it to a use so closely akin to definition by the addition of a verb.

Neither *simul* nor *modo* becomes wholly conjunctional and this fact perhaps accounts for the small amount of attention that has been given to their use. Neither appears to be in use alone as a conjunction in Plautus. *Modo* is associated with *dum* and *simul* with *atque* (*ac*) and each acquires its conjunctional force by the association. In Plautus *dum* is already in free use and *ac*, *atque* is used not infrequently in correlation with other words, *aeque*, *item*, *aliter*. There is a difference, however, in the causes which lead to the association. *Modo* is added to the *dum* clause as an adverb to express more fully the idea of limitation which is partly implied in *dum*, though not with sufficient distinctness. Then, just as the negative force of *ni* leads to its close association with the conditional relation and so with *si* in *nisi*, so the limiting meaning of *modo* belongs to the whole clause of proviso and especially to the conjunction which introduces the proviso. Thus it comes to be compounded with *dum*. On the other hand, *simul* is a necessary part of the sentence; it forms the necessary correlative to *ac*, *atque*, which is not used without some correlative. The composition

or close connection of *simul* with *ac* is therefore like the composition of *post-quam*, *prius-quam*, not like *dummodo*. The partial displacement of *dum* and *dummodo* by *modo* is due to the fact that *dum*, though it may be used with a clause of proviso, has other and more important uses. The element of proviso is more precisely expressed by *modo*, which thus becomes especially the bearer of this kind of relational concept. In like manner the particular meaning of *simul ac*, which distinguishes it from other temporal conjunctions, is the element of simultaneousness; this is not expressed with the same degree of clearness by *cum* or *eum extemplo* or *postquam* or *ubi*, and though the relative force, the subordinating function, resides in *ac* rather than in *simul*, the more definite and as it were more noticeable element is that which *simul* supplies. The relative force therefore passes over to *simul* and it alone expresses both elements.

These two words, then, illustrate the acquisition of the subordinating force by association with other words which already had that force. It is correct enough to say in general that conjunctions have acquired subordinating force by passing through a paratactic stage, but it is worth while to note these exceptions to the general rule.

The acquisition of subordinating force by a process different from any of those mentioned above is begun, though it is not carried to completion, in certain uses of *atque* and *et*. The latter is the most colorless representative of a purely coördinating conjunction and *atque*, in spite of the various demonstrative and strengthening uses, is also in the main a coördinating word. But with either conjunction the relation between the two clauses may be so varied by the content of one clause or the other that it approaches a subordinate relation.

This appears in the use of *et* or *atque* after words of likeness or unlikeness, *aeque*, *par*, *pariter*, *idem*, *alius*, of which there are many instances from Plautus down: *pariter hoc atque alias res soles; germanus pariter animo et corpore; par ratio cum Lucilio est ac mecum fuit; aeque amicos et nosmet ipsos diligamus.* In all such cases the word of resemblance or difference gives to the relation between the words or clause a shading which in more precise expression would call for the use of *quam* or some other distinctly subordinating conjunction. The use of *atque ut* or *ac si* is similar in character, as is the use of *et* to connect two successive events or points of time, frequently supported by a negative or by *uix* in the first clause and by a difference in tense between the two verbs. This well-known use is especially frequent in Vergil and in the poets after him. It is essentially of the same character as the use by a poet or an imaginative and emotional prose writer of common words in unusual connections, where they often give a peculiarly vivid effect. The movement of the emotional stream of thought is so strong that it is followed by the reader in masses, with long strides, without the need of precise expression; the writer may thus vary his choice of words more freely and may for the moment give to words a meaning peculiar and almost foreign to their usual sense. It is thus that a coördinating conjunction may be used to express a temporal relation which in precise speech would require *cum* or some other conjunction of time. For the moment *et* becomes a subordinating temporal conjunction or *et* or *atque* a subordinating conjunction of comparison. The overwhelming preponderance of the coördinating use is sufficient to prevent this acquisition of the subordinating function from becoming perma-

nent; indeed, in many cases the order indicates that the writer had the ordinary meaning of *et* or *atque* in mind while he was nevertheless using it as a subordinating word. But for the instant and to a certain degree the association of these words with a subordinate relation is real, and it deserves notice because in this case also, as in the case of *modo* and *simul*, there is no paratactic stage. The passage from coördination to subordination is immediate, without intervening steps.

There are no other Latin conjunctions whose early history can be followed with any considerable degree of certainty through the process of acquiring the subordinating function. Probably *dum* would come nearest to those mentioned above,[1] but there are only two instances, neither of them beyond question, of the correlation of *dum* — *dum* and it seems possible that some forms of the *dum*-clause are the result of defining parataxis. In the case of *si* there is abundant later evidence, but this particle became the regular conditional conjunction long before the time of Plautus. The *quis*-conjunctions and the relative pronoun are all so early that it is not likely that their passage from the interrogative to the relative use can ever be clearly known. So far as the attempt is made, however, to reconstruct this early history by inference, it must be done upon the basis of what is known directly. No other kind of parataxis and no other process of passing from adverb to conjunction should be employed in such a reconstruction than those kinds which can be actually followed with sufficient evidence. Briefly summarized they are as follows: —

1. Two sentences independent of each other in expression may be closely related in thought and the

[1] See Richardson, *de* dum *particulae apud priscos scriptores Latinos usu*, Leipzig, 1886.

relation may ultimately find expression by becoming attached to a particular word. This is the case with prohibitions following a statement, the relation becoming attached to *ne*.

2. Correlation may produce conjunctions, as in *ni* and doubtless in *si* and perhaps in *dum*. This may be the explanation of *qui*.

3. An element contained by implication in a sentence may be expanded into a leading clause, as is the case with many indirect questions and with *nulla causa est quin*.

4. The defining addition may itself become a conjunction — *quamuis*, *licet*.

5. The subordinating function may be acquired by association with another conjunction — *modo*, *simul* — or inherited from the relative pronoun — *quod*, *quom*.

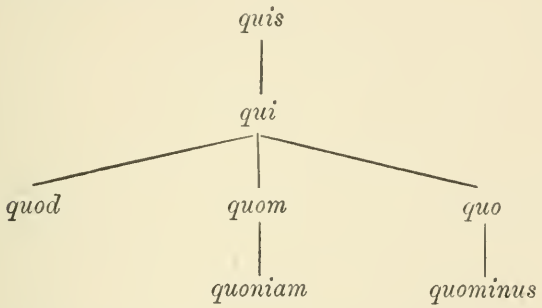
6. Coördination may occasionally pass over directly into subordination — *et*, *atque*.

Some further light, beside that which may come from detailed study of the paratactic stage, is thrown upon the *quis*-conjunctions by a consideration of the directness of their relationship to *quis* and by an attempt to distinguish between interrogative and indefinite uses.

Of these conjunctions a small group — *quod*, *quom*, *quoniam*, *quo* (with comparatives in a subjunctive clause), *quominus* — are directly from *qui* and only indirectly from *quis*. This is proved most clearly by the absence of interrogative use, and by other evidence also. Thus *quod* can be plainly followed in Plautus from the relative pronoun in the accusative of compass and extent to the causal conjunction; the loss of definite case-relation and of reference to an antecedent may be traced in detail.[1] The connection of *quom* with *qui* is supported by the

[1] See Ingersoll, The Latin Conjunction *Quod*, soon to be published.

resemblance between some of the *cum* constructions and corresponding relative clauses,[1] and *quoniam* is an extension of *quom*. There are several different kinds of *quo*, doubtless of different case-forms, but *quo* as used in clauses of purpose with the subjunctive and a word in the comparative degree is certainly nothing but the ablative of degree of difference, used exactly as the pronoun *qui* is used with the subjunctive to express purpose. And *quominus* is a special variety of this *quo*, permanently compounded with a particular comparative. Their relationship to *quis* and to each other may be shown by a stemma: —



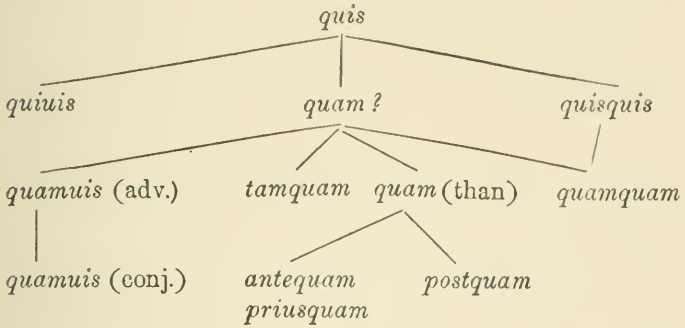
The assumption of the subordinating force took place in the stage between *quis* and *qui;* no question of this nature therefore can arise in connection with any of these conjunctions; they inherited the subordinating function from *qui*. The only question to be asked in regard to the origin of *quod*, *quom* or *quo* is as to the process by which they changed from case-forms of the relative pronoun to relative adverbs. This is a kind of question which, fundamentally, has nothing to do with subordination or with conjunctions. The process was essentially the same as that by which *eo*, the adverb

[1] Hale, The *Cum*-constructions.

meaning "therefore," was formed from *is*, though it is complicated by the later acquisition of functions of cause and time. The history of *quoniam* and *quominus* is one step further removed from the question of acquiring subordinating force. With these conjunctions the process to be considered is that of the specialization of meaning of the conjunctions *quom* and *quo* by means of the strengthening of *quom* to *quoniam* (or its composition with *iam*) and the composition of *quo* with a particular comparative of negative meaning. These two conjunctions, therefore, are to be studied by methods entirely different from those which apply to *quod*, *quom* or *quo*.

A somewhat similar table of relationships can be made out for *quam* and its compounds, though with more uncertainty at some points. The use of *quam* in interrogative sentences, direct and indirect, must be taken to indicate a direct connection with the interrogative *quis*, but it must also be acknowledged that exclamatory uses may have some connection with the indefinite meanings of *quis*. The compound *quamuis* seems, when taken alone, to be from an interrogative *quam*, but it cannot be separated from *quiuis* nor *quiuis* from *quilibet*. The indefinite force of *quamuis* and *quiuis* appears, however, to be due to the whole sentence, *quam uis*, rather than to *quam* alone. In the same way *quamquam* cannot be separated from *quisquis;* the indefinite force of either is the result in part of the doubling of the stem, and it is scarcely possible, on the one hand, that *quamquam* is the result of a doubling of *quam*, uninfluenced by *quisquis*, or that it is, on the other hand, a direct derivative from *quisquis*, uninfluenced by the simple *quam*. There is less difficulty in regard to *tamquam*, which is evidently the result of correlation. It appears to be phonetically

impossible to derive *quăsi* from *quam-si*, but syntactically it behaves as a compound of *quam* and *si* might be expected to behave. The connection of *quando* with the other compounds of *quam* is entirely uncertain. Omitting these two, the relationship of the more important compounds of *quam* may be represented as follows: —



The only value of such a table is that it represents graphically the differences in the history of different conjunctions and especially the different points at which they acquire subordinating force. This process takes place in *tamquam* and *quam* "than" in the process of shift from the interrogative adverb *quam* by means of correlation with *tam* or with a comparative, but in the case of *quamuis* the shift to a subordinating conjunction occurs at a later point in its history and by an entirely different process, that of association with a concessive sentence. But *antequam* and *postquam* inherit the subordinating function from *quam* "than," to which they stand in the same relation as that in which *quominus* stands to *quo* with comparatives. If the conjunctional (relative) force of these words be considered apart from their special adverbial shading (con-

cessive, temporal), then *quamuis* acquires its special adverbial shading first and its conjunctional force later, in consequence of its adverbial force, while *postquam* acquires conjunctional force first and its special temporal force at a later stage and as a result of the use with a comparative word. It is evident that such differences in history require a difference in method of treatment. Between *quamuis*, with its complicated history, and *quamquam*, which is a simple derivative from *quam* by doubling, there is no connection close enough to justify their treatment together.

It is now somewhat generally acknowledged that a classification of subordinate clauses by function, as causal, temporal, final, consecutive, etc., whatever may be its value for school-grammars, is of no value or is even misleading in scientific work on historical principles. The better mode of classification is by the introducing word, pronoun or conjunction. It is therefore necessary to consider the best method of classifying the subordinating words.

There appear to be three methods possible: first, by the case-form of the conjunction; second, by the kind of paratactic process through which it has passed; third, by the derivation of the conjunction.

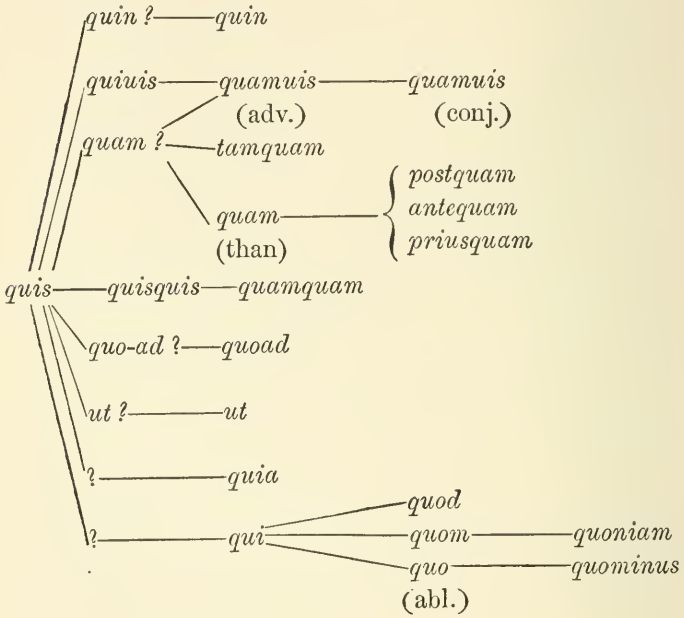
The first method was used by Schmalz in the first and second editions of his Syntax (Müller's *Handbuch*, II, 2). It has two disadvantages: first, the uncertainty in regard to the case-forms of many of the conjunctions; second, the fact that the character of the clause is only remotely influenced by the case of the introducing relative word. Thus *si* may be locative and *quom* instrumental (so Schmalz), but the clauses are unaffected by this fact, as the relative clause is unaffected in general by the case

of *qui*. This arrangement is apparently dropped in the third edition.[1]

The second method of classification, by the kind of paratactic stage through which the sentence passed or, more broadly, by the kind of process through which the word acquired subordinating force, has some distinct advantages. It would bring all conjunctions of whatever origin into a single scheme, not separating the *quis*-conjunctions from *dum*, *si*, *ne* and the others of various origin. Further, the character of the conjunction depends to a considerable extent upon the nature of its early stages; these leave distinct traces, *e. g.*, in the negative of the leading clause upon which *quin* depends, in the difference between *ne* clauses which are the result of defining parataxis and those which have come about in other ways, in the difference between *si* clauses after *miror* and the ordinary protasis. Also, one of the objects in studying the subordinate clause is to understand the process by which it became subordinate, and a classification of conjunctions by their paratactic uses would lead directly toward this end. On the other hand there are some disadvantages, equally distinct, connected with this method. While it is true that some of the peculiarities of conjunctions are the result of a peculiar paratactic structure, other characteristics not less important are to be explained by the origin of the conjunction. All *ne* clauses are strongly colored by the negative character of *ne* and this coloring is really more important than the distinction between *ne* clauses after verbs of special meaning (object clauses) and those after other

[1] The same order is retained in the third edition, though the main divisions into accusative, locative, modal and ablative case-forms are not used, and the case-forms of some conjunctions are differently given (e. g., *quom* instrumental, not locative).

verbs (purpose clauses). The meaning of *licet* has as much to do with its conjunctional use as the fact that it was prefixed to a concessive clause as a synthetic definition. It must also be said that at present too little is known about the varieties of parataxis to furnish a solid basis for classification and it is possible that the paratactic stage of many of the *quis*-conjunctions and especially of the relative pronoun *qui* must always remain obscure.



A third method of classifying conjunctions is by their origin. The disadvantage of this is that it is applicable or at least is valuable only with reference to the conjunctions derived from *quis*. Conjunctions from other sources have no common starting-point for genealogical

classification; they are derived from a noun (*modo*), a verb (*licet*), a negative (*ne*, *ni*) or from some other source and have nothing in common. The *quis*-conjunctions, however, may be arranged in a table as the compounds of *quam* were arranged above and this method leads to a partial classification.

This table is of course questionable at various points. The most important distinction suggested by it is the distinction between those conjunctions which are derived from *quis* with only one intermediate step and those which go through two or more middle stages. Wherever an interrogative form corresponding to the conjunction is still in use, it may be taken to indicate that the conjunction is derived from *quis* through the interrogative adverb. This is the case with *quin*, *quam*, *quoad* and *ut*. But as the forms of the relative pronoun would in general be similar to those of *quis*, it is always possible that the relative use of the conjunction, *e. g.*, of *quam*, may have been influenced also by *qui*, or, in other words, that there may have been a *quam* from *qui*, as well as a *quam* from *quis* through the interrogative *quam*. This is very unlikely to have been the case with *quin*, because the connection between the interrogative and the conjunction is well-marked and the range of *quin* is narrow. It is more easily supposable in the case of *quam*, especially if *qui* acquired its subordinating force through correlation, as *tamquam* and *quam* with comparatives did. On the other hand, *quod* and *quom* are never interrogative and the history of *quod* shows clearly that it comes from the relative; this appears to be the case also with the ablative *quo*, though it is less certain. As to *quia*, it is a much older word than *quod* and is in Plautus the usual causal conjunction. It is found in a great number of cases beginning the answer to a ques-

tion with *quid* or some other word for *why* and this fact must be the starting-point of any theory as to the intermediate stage between *quis* and the conjunction. Nor does *quia* show in Plautus any trace of those uses through which *quod* passed from the accusative to the causal meaning; the accusative of compass and extent is properly a singular. The few cases of *quianam?* may perhaps indicate an interrogative use, but it is also possible that the interrogative sense is here due to *nam*. For these reasons the middle step of *quia* must be regarded as doubtful and the same must be said of the intermediate stage of *qui*. Some of the difficulties presented by the ordinary explanation of the passage from *quis* to *qui* have been pointed out above (p. 107).

The inclusion of *ut* in this table of *quis*-conjunctions rests upon syntactical grounds. The phonetic difficulty of accounting for the loss of the initial *qu* sound is stated by Brugmann, *Grundr.*, II, 772. It is partly met by the parallel of *ubi*, *unde*, and *si-cubi*, *ne-cubi*, *ali-cunde* and by the Oscan *puz*, Umbrian *puze*. But the main reason for connecting *ut*, *ubi*, *unde* with *quis* is the fact that all their uses find in this way their most natural explanation. They are all found as interrogatives and go through the shift to the relative function precisely as they would do if they were derived from *quis*. To explain them in any other way is to do violence to a considerable mass of syntactical evidence. It is unfortunate that such a dilemma should present itself in the history of so important a conjunction.

Upon the basis of this table the principal *quis*-conjunctions fall into three main classes according to the directness of their connection with *quis* and the point at which the subordinating function is acquired,

and each class is subdivided according to the nature of the shift of meaning: —

1. From a *quis*-adverb, by means of some kind of paratactic association.
   - *a.* By defining parataxis — *quin*, some uses of *ut* with the subjunctive, and perhaps *quia*.
   - *b.* Under the influence of an indefinite pronoun — *quamuis*, *quamquam*.
   - *c.* By correlative parataxis — *tamquam*, *quam* (than), *ut* with the indicative, and perhaps *qui*, *ubi*, *unde*, *quoad*.

2. From *quis* indirectly, through a word having subordinating force.
   - *a.* Through *qui* (the pronoun) — *quod*, *quom* and probably the ablative *quo*.
   - *b.* Through *quam* (than) — *postquam*, *antequam*, *priusquam*.

3. From *quis* by two stages, through a specialized form of a relative conjunction.
   - *a.* Through *quom* — *quoniam*.
   - *b.* Through the ablative *quo* — *quominus*.

This tabulation does not, of course, add anything to our knowledge of conjunctions; its object is to analyze the general problem into classes of minor problems. The problem in regard to class 1 is to discover the steps by which an interrogative adverb becomes a conjunction; in class 2 it is to trace the passage from relative pronoun to conjunction or the acquisition of temporal meaning by composition with adverbs; in class 3 it is to follow the specialization and differentiation of a compound from a simple conjunction. These problems are essentially different and are to be approached in different ways. At the same time the tabulation shows the points at which our knowledge is insufficient. The distinction

between *ut* with the subjunctive, as the result of defining parataxis, and *ut* with the indicative, as the result of correlative parataxis, is not made without some study of these uses, but it is assuredly not an established connection; it may be said to be important, if true, and the tabulation is meant to bring out its importance. So also the differences between *quom* and *quoniam*, between *postquam* and *quom*, between *quod* and *quia*, are so great that the first step toward the solution of the problem is to face its nature. The last distinction, especially, between *quod* and *quia*, is often overlooked because of the resemblance in function.

VIII

THE GROUPING OF WORDS

The means of expressing the concepts of relation already described — the musical elements of speech, order, inflection and single words — express also the unity of the concept-group. But they do so indirectly and not completely. There is a unity of the group, a homogeneity and harmony running through the whole sentence, which is deeper than these means alone could convey. It is seen at its highest point in idiomatic word-groups, like *ut ita dicam*, *quae cum ita sint*, in which the meaning of individual words is almost lost and the phrase is felt simply as a whole. Less distinctly it is to be seen in longer *ut* or *cum* clauses of purpose or cause, in which the meaning of individual words is felt somewhat distinctly and yet the meaning of the whole group, as an expression of purpose or cause, is also felt. Less obviously, but not less truly, a similar unity is to be found in every sentence and is a part of the total impression made by the word-group upon the hearer. It is this unification and fusion which the term *grouping of words* is meant to describe and which it is proposed to consider in this chapter.

The process of analysis described above (Chap. II) does not result in a displacement of the germ-concept by the separate members of a concept-group; on the contrary, the germ of the thought is retained more or less

clearly in consciousness and there is a frequent, though perhaps intermittent, comparison of the result of analysis with the unanalyzed germ. Or it might be said that the consciousness of the germ guides and determines the analysis. The sense of the unity of the group is therefore one of the prominent elements of the thought and is the source and cause of the impression of unity which the corresponding word-group makes. At the same time the process of analysis is distinguishing the various elements in the meaning of the germ and, as it were, distributing them for purposes of expression among the different members of the word-group. The process may be compared to expansion and distribution, or may be called a transfer of function from the word-group as a whole to the individual members of the group.

It is antecedently probable that both aspects of this process, both the unity and the distribution of meaning, will be to some measure reflected in the growth of sentence-forms. Actual observation in this direction in the Indo-European family of languages cannot be appealed to nor has the observation of other languages still in the primitive stage been sufficiently full and exact to justify the positive statement that the primitive sentence was short and simple. In the most general way it is, however, probable that the growth of the sentence also, like the analysis of the concept-group, has been in the way of expansion from a germ and of distribution among an increasing number of words of functions which were once expressed by few words. It is not to be expected that, after the transfer of group-meanings to single words or to small groups has been going on for so long a time, it should now be possible in every sentence to distinguish the germ from the later accretions or to follow in all its details the process of expansion and dis-

tribution, but within narrow limits the process is still going on in historical periods and may be detected in certain kinds of sentence.

In some few types of sentence, especially those which are strongly emotional and in which, for this reason, there is little information or reasoning, it is often possible to detect the germ, to fix upon the center of gravity. It has already been said that prohibitions are for the most part only willed negatives. The essential thing in them is *ne* and often the verb is a word of the most general meaning, serving in truth no other purpose than that of carrying the subjunctive or imperative ending. Or else it is a repetition from a previous sentence, either the same word precisely repeated or a verb of similar meaning. The circumstances or the context have already defined the action prohibited, before the verb is uttered. In like manner the central idea of many questions may be seen to lie in some one word or in some two or three words. Questions with *non* or *nonne*, especially in conversation, where the particles are less stereotyped, are usually only repetitions in a different form of what has been previously said or implied. If the speaker desires no change of phrase, the single word *non*, uttered probably with rising inflection, suffices without addition. In all these cases — which have abundant parallels in modern languages — the germ of the thought is the mere questioning of the previously expressed or implied statement. With slight differences this is true of many *quis*-questions. Either the verb is an empty form (*quid faciam? quid agam?*) or it is a repetition (*redde.* ‖ *quid reddam?*), either a precise repetition or a repetition with variation of phrasing. And very frequently the interrogative word (*quid? cur? quippini? quomodo? quamobrem?*) is all that is required, the rest of the thought

being left unexpressed because it is so easily supplied. The germ of most exclamations is really the tone, the words being merely repeated with more or less amplification, as in Plaut. *Aul.*, 783 f., *Is me nunc renuntiare repudium iussit tibi.* || *repudium rebus paratis exornatis nuptiis!* This is really in three parts, *repudium — rebus paratis — exornatis nuptiis*, which indicate the expansion of the thought as the speaker gradually perceives the different aspects suggested by the word *repudium.*

In the more unemotional sentences of connected writing it is less easy to detect the germ of the thought, but something may be done by distinguishing what is new in the sentence from what is repeated or carried over from the previous thought. The latter element is in almost all connected writing larger than would be expected by one who has not analyzed the relation of sentences. In writings upon abstract subjects, as in Cicero's or Seneca's philosophical works, each sentence carries forward the thought a little way, but each sentence also reaches back into the previous thought, in order to bring the known into relation with the new elements which the sentence contains. Evidently it is the new elements which contain the germ of the new concept-group. The following sentences from a book-review illustrate this point: "It is impossible to give any detailed account of the author's position on these subjects. He assumes throughout a scientific rather than a polemical attitude towards the various forms of occultism." In the second sentence *throughout* is merely the opposite of *detailed*, while *attitude* is the same as *position* and *towards . . . occultism* repeats *on these subjects.* The new element is in the word *scientific;* this is the germ of the thought and the whole sentence might have been briefly though inadequately expressed by saying

"But in general (= throughout) it is scientific." The words *rather than polemical* are added as a definition of *scientific*. The rest of the sentence is mere syntactical filling-in, and it may be noted in passing that syntactical structure has nothing to do with the distinction between the germ and the amplifications or repetitions. The same mingling of repetitions and new elements may be illustrated from almost any connected passage in Cicero's philosophical works, *e. g.*, from the Cato Major, § 67: *quamquam quis est tam stultus, quamuis sit adulescens, cui sit exploratum, se ad uesperum esse uicturum?* (The next sentence adds "it is worse than that," and the germ is in *plures*.) *Quin etiam aetas illa multo plures, quam nostra, mortis casus habet.* (The following sentence merely specifies; the germs are perhaps in the three verbs, which are variations of one idea.) *Facilius in morbos incidunt adulescentes, grauius aegrotant, tristius curantur.* Even when the germ of the thought can be discovered and located, it is still difficult to trace through a long sentence the process by which it is expanded and its meaning is distributed. But on a smaller scale the process may be followed in the formation of minor groups within the sentence. One of the most striking and instructive illustrations is afforded by defining parataxis, especially the cases in which the defined verb is in the subjunctive, which have been given in some detail above (Chap. VI, p. 132 ff.). In all these cases the verb in the subjunctive is the germ. It contains in an unanalyzed form a number of different elements of meaning; all of them or many of them are suggested at once by the form of the verb. But among them some single one is in a particular case more prominent than others. Upon this the attention of the speaker is directed and it is thus made so prominent as

to call for fuller expression by means of another word. Thus the first singular of the present suggests propriety or obligation and this element finds expression in *nunc adeam optumumst.* The expression of feeling in "I desire to love you" involves a request for permission; *te amem* expands into *sine te amem.* Further details have already been given and need not be repeated. It is the very remarkable vagueness of the subjunctive taken by itself, the fact that it serves such a bewildering variety of purposes, that calls for such a variety also of definition. Every element of meaning thus repeated in the defining word was before contained by implication in the subjunctive form. And it is to be noticed that here also the syntactical center and the center of meaning do not correspond; the clause of secondary meaning becomes the leading clause in the syntactical structure.

The same process of distribution of function underlies the use of prepositions with case-forms. The case-form carried implications of meaning, some of which were prominent, others latent. As one or another of these elements became prominent it called for more definite expression and to this end adverbs were prefixed to the case-forms, as verbs were prefixed to the subjunctive forms. Thus *contra*, *ad*, *ante*, *ob*, all express with some degree of precision and with accompanying additions the idea of direction or limit of motion which exists also in the accusative, and *ex*, *ab*, *de*, repeat and define the ablative. The prepositions thus afford a definition of the cases, as the prefixed verbs do of the subjunctive, and by the fact that a definition is needed they prove the vagueness of the bare case-forms.

In the process of definition by expansion and by distribution of function a distinction is to be made between the motive which leads to expansion and the condition

which permits it. The motive is the desire for more precise expression, aroused by the directing of the attention upon elements of meaning which do not find sufficient expression in the mode or the case-form. The condition which permits the distribution of the meaning between the two words is that the added word shall in part repeat the meaning of the word to which it is added. There must be a common element of meaning, since the object of the expansion is definition; as the two elements of meaning were at first combined in the meaning of one word, they must have been congruous and harmonious. This explains the unity of meaning which still exists after the function has been divided between the two words, *fac sciam*, *uolo abeas*, *iube ueniat;* though the meaning is distributed, the two elements of it are still closely related and their unity is still felt. This is the reason why they are usually in close juxtaposition in the sentence. They constitute a word-group, made by a process of analysis and expansion and bound together in the closest unity.

It appears to be a justifiable inference that it is through some such process as this, much more complicated and doubtless involving steps not represented in these simpler illustrations, that harmony and unity are preserved throughout a word-group. These illustrations have to do with the distribution of the function of an inflected form, but an uninflected word may in like manner contain elements of meaning which call for definition or for fuller expression than a single word can give. In such a case the most obvious aspect of the concept finds expression in one word and another word is added to limit it more precisely. For the analysis of a concept does not go on equally in all directions at once. Depending as it does upon suggestion by association, it follows first

the line of strongest association and that element which comes first into consciousness is the one which first finds expression in a word. It is not necessarily the first in order in the sentence, when the sentence is finally ready for utterance. Very frequently one is conscious of the fact that he has fixed upon some middle or later portion of his sentence and is obliged to accommodate the earlier parts to it. But the analysis reaches the point of distinctness, the point where the concepts suggest words, earlier in some one direction than in others. The word thus suggested may not be retained; the further analysis may render it necessary to reject it and select a different one; but usually it becomes the fixed center of the expression and about it all other words are grouped. The distribution of the remainder of the meaning is largely determined by the selection already made and the meanings of all other words must, directly or indirectly, accommodate themselves to the meaning already expressed. Viewed in this way the formation of a word-group is a process of accommodation of meanings, in which each word, as it is selected, forms part of a framework to which the other words must be adjusted. It is this adjustment which insures the harmony of the whole and thereby reflects the unity of the concept-group.

Adjustment or accommodation involves partial loss of meaning. Of the various meanings associated with a word some will be appropriate to a particular setting, while others will be inconsistent with it. The limitations which the context places upon the meaning of inflectional forms has been noted above; limitations entirely similar are placed also upon the meanings of all words by their use in combination with others. It is because of this that it is possible to use without confusion words which have many and quite different mean-

ings. In a particular setting only the meaning which is consistent with that setting is suggested to the hearer; the other incongruous meanings do not occur to him at all or are immediately excluded by the surroundings. The meaning of the word is, in a general way, inferred from the rest of the group, as it would be possible to infer the general tone of the group from the precise meaning of the word.

This subject belongs in strictness as much to semantics as to syntax. To the syntacticist its chief interest is in its bearing upon the function of inflections and in the suggestions it affords in regard to the transfer of meaning from the group to single words. To determine where and how group-functions have become attached to single words or to inflectional forms, and still more to perceive that in many cases the transfer is incomplete, is to take a considerable step toward the understanding of the whole process of grouping words.

The transfer of group-meanings and functions to single words is matched by a process exactly the reverse, the re-transfer of the meanings of single words back to the group.

This is seen in its most complete form in idiomatic phrases, *ut ita dicam*, *quae cum ita sint*, "so to speak," "for that matter." The process which ends in such phrases begins like any other utterance with an analysis of a complex concept and the fitting of suitable words, each with its own meaning, to the resulting members. But if the concept-group is one which frequently recurs in thought and if the words are adequate expressions of it, it easily and surely comes about that the process of analysis is at first partially avoided and then wholly or largely omitted. The consciousness of the whole is

greater than the consciousness of the parts; the parts are only a means, at the best, of expressing the whole, the germ of the group. Association is therefore set up directly between the group-concept, and the whole phrase, the word-group. The difficult process of analysis is thus avoided; for the analysis, rapid and automatic as it becomes, is at first and when it is attempted upon unfamiliar material difficult and slow. But when both the thought and the words are familiar, analysis is no longer necessary. As the thought, after it has been analyzed, sinks back at once into the unanalyzed condition and is remembered only as a series of connected groups, so a familiar concept-group is for a moment the object of attention and is matched by the associated word-group without the necessity of analysis. The result of this direct association of word-group with concept-group is that the members of the concept-group are not brought forward into consciousness at all and the individual words therefore lose in large measure their separate meaning. To complete the process and produce a true idiom it is only necessary that the phrase as a whole shall be in use so long that the original analysis shall be forgotten and perhaps that some of the words in the phrase shall have changed their ordinary meaning, so that they would no longer be combined in the same way or the same words would no longer be selected, if the concept-group should again be analyzed. A step further is taken when, by shift of accent or other change, such a word-group suffers phonetic decay and its parts are compounded so that they are no longer felt as separate words.

When an idiomatic word-group has reached the point of suffering phonetic decay, re-analysis, except in the scientific sense, is impossible; it is difficult and unlikely

to occur, even though the words remain phonetically distinct, if an important word in the group has in process of time considerably shifted its ordinary meaning. But in the case of many idioms a partial re-analysis is not infrequent. It occurs when the speaker happens to give special attention to the concept, either because it is of special importance to the thought or because he desires to avoid a trite form of expression. Thus *ut ita dicam* may become *ut sic dixerim* or *ut hoc uerbo utar;* thus *ut scias, ut tu scias, ut tu sis sciens, ut scire possis, ut tu meam sententiam noscere possis* (all from Plautus) represent various re-analyses and expansions of a single concept. It is not necessary to suppose that one of these must have been the original from which the others have come, or that a distinction as to age can be made between *quid ego nunc faciam?* and *quid ego nunc agam?* They represent two forms of the same analysis.

The likeness between different analyses of the same group or between the analyses of but slightly differing groups is not to any great extent the result of direct influence of one word-group upon another, but of indirect association through the concept-groups. After a group has been analyzed, there remains in the linguistic memory a remembrance of the way in which the analysis proceeded. With repetition the analysis becomes habitual and is more or less permanently associated with the particular concept. The recurrence of the concept brings up also the particular analysis and the memory is, as it were, stored with such schemes or forms of analysis. There are thus in the mind three connected memories, the concept itself, the form of analysis and the word-group. These are all associated together, but they are also associated with other memories of the same

kind, concepts with other like concepts, analyses with like analyses and word-groups with like word-groups. But of these series of associations the direct association of word-group with word-group is the weakest, that of analysis with analysis is stronger and that of concept with concept is the closest of all; the sense of unity, upon which the association depends, is clearest in the concept. The connection between sentence-forms like the variations of *ut scias* quoted above is therefore not simply a direct connection; there is also a connection, much stronger and more important, through the concepts represented by the similar sentence-forms.

There is a limit, however, to the formation of such associative series. As the analysis becomes more complex, the resemblances are less obvious because, as has been said, the sense of unity is less clear and it is more difficult to grasp the group as a whole. There is a unity, it is true, in each sentence, however long it may be, but long periodic sentences belong to written, that is, to artificial, language. They represent the utmost possible extension of concept-grouping and of word-combination and they exercise but little influence upon the life and movement of language. A greater degree of unification is found in subordinate clauses, even when they are long. A consciousness of the group-concept is preserved, *e. g.*, through a long *ut* or *cum* clause, so that it is felt through all its length to be an expression of purpose or time and its relation to the leading clause is not lost sight of. But it is of course true that no long idioms are formed. The longer the phrase, the greater is the difficulty of grasping the group-concept without analysis and the less is the probability that the concept as a whole will become associated with the word-group as a whole. No precise limit can be set in such a mat-

ter, but it is true as a general principle that the memory of sentence-forms, the feeling of similarity in analyses and concepts, by which they are bound into series, are strongest with short sentences or phrases and grow rapidly weaker as the groups increase in length and complexity.

The tracing of the influence of one construction upon another, which is the office of historical syntax, may thus follow two or three different lines. A word will influence another word directly and an inflected form of a noun or verb may lead by analogy to the use of a similar form of another noun or verb. But the making of one inflectional form after the analogy of another and with the same meaning can take place freely only when the meaning has become somewhat firmly associated with the form, that is, when the shift of function from the group to the inflectional form is largely complete. As long as the function requires for its full expression that the inflected form shall be accompanied by other words, as the preposition *ab* must go with the ablative of the agent, it remains in part a group-function. And so long as it remains a function of the group, the influence upon other forms of expression, the lines of analogical influence, must be indirect, through the similarity of the concepts. This has been already alluded to with reference to the potential subjunctive. This kind of shading of a statement is almost never firmly attached to the subjunctive form alone; it requires an interrogative, a comparative, a protasis or some other accompaniment. There can therefore be no association between potential subjunctives except through the group-concepts; when these are unlike there is no association. Thus *tu fortasse me putes indulsisse amori meo* cannot be associated with *non quiuis . . . describat uulnera Parthi*

nor either of them with *nimis nili tibicen siem.* There is a single element of likeness in all these phrases, but it is not sufficient to lead to the association of the group-concepts or of the forms of analysis, which are entirely dissimilar. In the sphere of word-groups the working of analogy must not be lightly assumed nor widely extended without careful consideration. Its place is in short sentences and phrases, where the similarities of concepts can be observed and finally reduced to system.

IX

FORM, FUNCTION AND CLASSIFICATION

THE distinction between form and function in syntax was touched upon in a few words by Lange in his paper of 1852 and has more recently been discussed with much fulness and with much resultant clearing up of the subject by J. Ries in *Was ist Syntax?* It is a distinction of fundamental importance in its bearing upon the methods of syntactical investigation.

Syntactical form includes, in general, all those elements of language which serve in any way to bind words together and to express the relation of concepts. Some of these elements have been considered in detail above. A complete formal description of a particular word-group calls for the noting of the following particulars: —

1. Pauses, time, tone, sentence-accent, especially in spoken language and, so far as it is possible, in written language also.

2. The inflectional form of words, including the person, number and voice of verbs, as well as the mode and tense, and the number of nouns as well as the case.

3. The order of clauses with reference to one another and of words within a clause. If the immediate bearing of this upon the expression of relation is not evident, as it is not, there is the greater need of observation and record.

4. The general sentence-structure, as distinguished from order. This includes the presence or absence of a dependent infinitive, of an ablative absolute, of modifying clauses.

For the recording and exhibiting of these particulars of form the use of symbols has been suggested, in order the better to represent sentence-form without including word-meaning, but no scheme of much complexity has ever been used and it is doubtful whether such schemes could exhibit in detail the varieties of structure.

5. The kind of sentence, including a distinction between subordinate and leading clauses, between interrogative and non-interrogative sentences and between those which contain a negative and those which do not.

6. All single words expressive of relation and all modifying words, adverbs, adjectives, pronouns and particles.

7. The word-meaning of all inflected words, *e. g.*, in the case of verbs, whether the verb is one of will or desire, of saying or thinking, of effort, of precaution, of fear, etc., whether it denotes attempted action or progressive and continued action or a completed state; in respect to nouns, whether they are locative, instrumental, temporal, causal, whether they denote a person or a thing, whether they are abstract or concrete, and similar characteristics of the stem-meaning.

In some of these particulars, especially in the last two, the line which divides form from meaning is crossed. There are, in fact, three points of view which might be taken into account in looking at word-groups, the form, the content[1] and the function. By the content of a single inflected word would be meant the stem-meaning, while

[1] This distinction is suggested by my colleague Professor Oertel, to whom I am already under many obligations.

the meaning of the case-form would be the function; the content of a clause would be the thing said in that clause, the function would be its part in the course of thought, as an assertion, a question, an expression of purpose, of time. But for syntactical purposes, the phonetic form of a word or a word-group is unimportant except as a means of determining and describing more accurately its content, the meaning of its several parts. Syntax is concerned directly only with meanings; its province is to find the laws which govern the shifts of meaning which accompany inflectional change (a province which it shares with semantics) or to follow the process by which a word-group acquires a meaning beyond the meaning of its several parts. For this purpose phonetic form is of only secondary importance and the important distinction is that which separates syntactical function from word-meaning. The term syntactical form is therefore used as above, to cover all that is not function.

The word function has probably come over into syntax from physiology. It involves, as all such transferred terms do, a figure which is not strictly accurate in all its details. In the physiological use function is the peculiar or appropriate action of an organ or the capacity for such action. But words and sentences are not organs; they are articulate sounds uttered in connection with a train of thought as a means of exciting a similar train of thought in the mind of another person. In this operation there is nothing organic and nothing, in the strict sense of the word, functional. There is a certain train of thought suggested and this is called the meaning of the sentence. Where then is the function?

To answer this question it is necessary to revert to the nature of the concept-group and to recall again the

fact that it includes two kinds of concepts, differing somewhat in their nature and in the clearness with which they are felt in consciousness. The substantive concepts (p. 45) are the more distinct, they correspond more nearly to objects perceived by the senses and they find earlier and easier expression in language. It is the substantive concepts which constitute word-meanings. The concepts of relation, the transitive concepts, are less vividly felt or the conscious attention is less easily directed upon them and they have been later in finding definite expression in language. It is of the expression of these concepts, of the expression of relations, that the word function is used.

The distinction between word-meaning and function is not, however, made quite clear by saying that the substantive concepts are the meanings of words and the transitive elements are functions, for there has been in language a constant transfer of words from the expression of substantive concepts to the expression of relation. This is true of all conjunctions, so far as their history is known, and of prepositions. In some earlier use they were adverbs or pronouns or verbs and by a gradual shift they have lost their "meaning" and have assumed, wholly or in part, a "function." The word-meaning of *et* or *sed* is a relation, which is felt with almost the same definiteness as the meaning of *uirtus* or *uis or consul.* In the case of such complete conjunctions word-meaning and function are identical. But other conjunctions or prepositions which still retain in part their original use like *modo*, *licet*, *supra, prope*, may be said to have at one time word-meaning, at another time function, or, more accurately, to have both together, since the substantive concept and the transitive concept have elements in common. In all these cases, where

single words have been transferred to the expression of relation the use of the term function is somewhat inexact.

The employment of the term with reference to inflected words seems at first sight more precise; the meaning of *mensā* is "table," the function is, *e. g.*, locative. But this assumes that the relation is and has always been expressed by the termination, an assumption which is not borne out by the facts. It is rather to be assumed that the word-meaning is the determining element in making *die* an expression of temporal relation, *humi* a locative and *gladio* an instrumental. The function is in part, certainly, limited and fixed by the meaning of the stem and, in so far as this is the case, the separation of word-meaning and function is impossible. With reference, therefore, to some inflected words — and probably to the greater number — the term function is liable to lead to confusion of thought and can safely be used only in a general way.

The function of a word-group is the expression of the relation of its concept-group to another concept-group. In part, this may depend upon a word which introduces or "governs" the group, a conjunction or a preposition, and to this extent the function of the group is dependent upon the function or the meaning of one of its members. Thus *cum* or *si* determines the function of the clause which it introduces. But in part the function of a clause is conditioned upon its being grasped as a whole, that is, upon the clearness with which the unanalyzed whole, the group-concept, finds expression. For relation cannot be felt except when the unity of each of the related concepts is felt. Through these two means, the introducing word and the unification of the group, the function may be expressed and may be

quite accurately distinguished from the content or meaning.

It follows from this that the function, whether of a single word, of an inflected form or of a word-group, is in itself but vaguely defined. Such definition as it has comes from word-meaning; the function of a conjunction is most clear, because function and meaning are identical; the function of a case-form is less definite and that of a word-group is still less defined, unless it gets definition from the meaning of an introducing word. The relation of two clauses in parataxis illustrates the vagueness of function, when it is suggested merely by the unified word-groups without the aid of the meaning of a conjunction. Lacking the definition which is given by the meaning of the stem, an ablative may suggest cause, manner and means, all at once, and a clause may perform both final and consecutive functions or may be at the same time a clause of time and of condition. It must be said in general of function that its clearness is in inverse ratio to the degree to which it can be separated from word-meaning.

The classification of syntactical material, while it has usually been based either upon function or upon form, has varied somewhat according to the object aimed at. For pedagogical purposes the usual arrangement is functional. This is partly a matter of tradition, now apparently somewhat weakened, and partly because a grammar does not so much present the material of syntax as its doctrines. A grammar is made up in large part of rules to serve for the interpretation of a foreign language or, in the older Latin grammars, to teach the pupil also how to write Latin. For these purposes classification is a means of presentation, not a tool

of investigation, and the question what method of classification is best adapted to this purpose is one to be answered by the experience of teachers. A functional arrangement, if it is clearly stated, has a certain unity of system and permits easier parallels between different languages, especially between Greek and Latin. There is, however, a tendency at present in school grammars to substitute a formal arrangement and it is to be hoped that this method may be fully tested in the class-room.

There is a considerable amount of work upon single authors which is usually regarded as syntactical, but which is quite as distinctly stylistic in its object. It is found chiefly in doctor-dissertations upon single cases or tenses or prepositions or conjunctions, as used by one author or a group of authors. On a larger scale Tacitus has been thus treated by Draeger, Nepos by Lupus and Livy by Kühnast and by Riemann. These works, however, are not greatly concerned with syntactical theory or law; they afford excellent material for theory, but their real object is the study of an author's style by comparing it in detail either with general usage or with the style of same other author. The best system of arrangement is therefore one which most facilitates comparison with other similar collections and for this purpose some familiar arrangement is convenient. Draeger's scheme is most frequently followed in Latin and no doubt the impulse to this kind of work was given chiefly by his Historical Syntax. This fixed scheme is better adapted to such purposes than any novelty, even though the latter might have scientific advantages.

Classification for scientific purposes, as a tool for the investigation of a mass of syntactical material and a means of discovering the laws of syntax, is of such

importance that the two systems in use, the functional and the formal, deserve deliberate consideration with reference to the advantages and the disadvantages of each.

The advantages of classification by function lie chiefly in its systematic character. It presents the facts in a logical scheme, showing their relation to each other and giving to each function its proper place in the whole scheme of expression. Thus a functional presentation of the tenses shows the expressions for past, present and future, for action beginning, continued, complete; clauses divide into independent and subordinate, and subordinate clauses into temporal, causal, conditional, etc., or into substantive, adjective, and adverbial. There is a completeness and an ideal simplicity and clearness in such a scheme as is given, for example, in Draeger's table of contents to Vol. II, which is not to be undervalued. In the study of language the mass of facts is so enormous and the difficulty of reducing them to order is so great that the danger of over-theorizing may well be risked for the sake of arriving at some kind of system.

A second advantage of functional classification is the directness with which it leads toward what must be recognized as the ultimate end of all linguistic study. In the discredit into which logical grammar has fallen, the fact is sometimes overlooked that the admeasurement of language by logical standards is a perfectly legitimate and indeed a necessary step to the complete understanding of its nature. The logical standards supply a final test of the degree to which language succeeds in fulfilling its mission. Or perhaps it is more correct to say that the comparison of language with the ideal standards of logic affords a measure of the difference between adequate expression — which is all that

language attains — and absolutely precise expression. To apply this test is to use one of the means of understanding the limitations and the nature of language. This is the reason why the results of functional syntax seem to have so great a degree of finality. When a study of a certain form of clause results in the conclusion that it is a clause of purpose, this result seems to be the end of all question in regard to the nature of the clause.

A third direction in which functional observation and classification may be used to advantage is as a means to the discovery of formal peculiarities. In working over a considerable mass of syntactical material — two or three hundred cases — it will at times be difficult to discern variations in form upon which a formal subdivision can be based. Formally the cases look all alike or else they present a bewildering variety of form in which it is impossible to find a clue to the significant variations. In this situation it is sometimes easier to begin with the observation of functional differences and subdivisions in the confident expectation that this method of procedure will lead in the end to the detection also of formal differences.

The advantages of functional syntax, it will be seen, are chiefly the result of its systematic and logical character and appear almost wholly in the presentation of results. Its defects are most apparent and most serious when it is regarded as a tool of the scientific investigator, as a means to the establishment of historical sequence and the discovery of laws of development.

The defects of functional classification must be stated at greater length, since it is the system in common use and its deficiencies are hidden under the sanction of tradition.

1. Classifications based upon function are vague and consequently unstable, that is, they admit of wide divergence of opinion in regard to the proper class to which a particular instance should be assigned. Thus different commentators upon a passage hesitate between the dative of advantage and the ethical dative, between ablative of manner and ablative of means, between ablative of means and instrumental ablative, even when there is no question in regard to the interpretation of the passage. In the classification and naming of modal uses there is even more divergence of opinion. No two scholars could take a thousand instances of the subjunctive at random and divide them between the two ordinary classes of volitive and potential and expect the results to agree. The system in use fails to meet the most elementary requirement of a scheme of classification, namely, that it should be clear and stable and that under it species and varieties should be identified with reasonable exactness.

This failure is not due to lack of care or ingenuity in the application of the system, but to the radical defect of vagueness in the characteristics of the classes. Functions are not divided from each other by sharp lines, but by neutral belts. The simplest kind of functional division, like that between coördination and subordination, is not precise; the subordinating function is a relation which varies almost infinitely in closeness and strength, from the fullest incorporation of one clause into another to relations which are so near to pure coördination that they are expressed by coördinating conjunctions. So purpose and result run together and inference, motive and efficient cause, as colors shade into each other in the spectrum. The functional characteristics of words and word-groups are most certainly of the very highest

importance; they are indeed more important to the student of syntax than any other characteristics; but they are an unstable foundation for classification. A system which uses function for its measuring-rod will always be shifting and uncertain.

2. A partial recognition of the above-mentioned defect has led to some attempts to remedy it. It has been thought that the difficulty lies in a lack of precision in the definitions, and that it might be removed by the use of sharper definitions. But this is an error. The variety and instability lie in the functions themselves, not in the definitions. This is, on the whole and in the long run, so plain that individual and clear-cut distinctions between functions, *e. g.*, between relative clauses of characteristic and relative clauses of result, are rarely acceptable to any one but the maker of them, because the precision is attained by the omission of some characteristics. Precise definition of function has the further disadvantage of leading to forced interpretation and to interpretation by translation. Being founded upon some one or two characteristics of the function, and, naturally, upon prominent characteristics, it is almost inevitable that the maker of the definition should see those characteristics and only those wherever he looks. Thus all subjunctives come to look polemical or all fictive, all potentials are translated by *would*, all result clauses contain a potential. But the difficulty lies in the system, not in the definitions. They are as precise as definitions of large functions ought to be.

3. One of the most serious defects in the systems of functional classification at present in use is the great extent of the classes and the lack of subdivisions. Thus purpose is treated as a single function, without

subdivision except that between positive and negative; few grammars subdivide the function of cause; the sub-classes of conditional sentences are few in number and are really more formal than functional. With terms so general as these the investigator cannot do precise work. Careful observation is discouraged, because no careful observation is necessary, and the whole syntactical study ends with the placing of a particular instance under one of these broad classes, no attention being paid to the minute differences in the understanding of which lies the possibility of all discovery.

To some extent this defect is being remedied. Quite recent American work has shown that functional syntacticists feel the need of more subdivision, *e. g.*, of the characterizing *qui* clause, and some years ago the programs of Imme [1] gave an illustration of the excellent results which could be reached by a functional subdivision of the interrogative sentence, as compared with the older triple division. The most brilliant example of functional classification carried out systematically into the extreme of subdivision is that afforded by the programs of Hentze, mentioned above (pp. 113 f.), on parataxis in Homer. Functional treatment of this kind, so free from sweeping terms, so detailed and precise, does not yield in effectiveness to any formal classification. A glance at the pamphlets will show the reason. Each functional subdivision is also described in formal terms; the mode and tense, the pronominal forms, the repetitions of words from a previous clause, the order of clauses, in short, all the formal elements are noted quite as carefully as is the function, and the functional classification is in fact a formal classification also. One may hazard the guess that in working it out the author really

[1] See p. 32.

made use first of the formal distinctions, though for his purpose he finally placed the functional characteristics in the foreground. To some considerable degree the same thing may be said of Imme's programs.

The truth is that an ideal classification is both formal and functional. When the utmost had been done in the direction of subdivision, so that the most minute peculiarities had been made to serve as a basis for sub-classes, the result would be to bring the two systems into harmony. Each species would have its carefully defined form and its correspondingly restricted function. But it would still be true that to reach this ideal correspondence and harmony the path of formal observation and classification is both surer and easier.

4. Connected with the use of large functional classes and made more dangerous by it is the tendency to reason about functions as if they were entities, as if they influenced other functions or were influenced by them or were derived from similar functions or became the source of other derived functions. This is particularly frequent in modal syntax, and begins in fact with the treatment of the subjunctive mode itself as an existing reality instead of a general term applied to a number of related forms and functions. The most striking — and, it may fairly be said, astonishing — illustration of this is in the treatment of what is called "the potential." Here are a dozen or more of different word-groups having in common the presence of a subjunctive form and having a common functional element, the expression of an opinion in regard to an imagined or ideal or contingent act. But in syntactical work "the potential" is said to be derived from something or something else is said to be derived from it, as if it were a distinct entity instead of being a name for an abstraction. The result

is that, in the first place, the other members of the word-group are wholly or largely overlooked and, in the second place, the distinctive elements in the several functions are forgotten and attention is directed solely upon the common element. Thus the individuality of word-groups and of their functions is lost sight of and the whole process of reasoning becomes a kind of ingenious syntactical algebra, in which symbols have displaced realities.

5. This leads to still another tendency which, if not inherent in the functional method, is at least commonly associated with it, namely, the tendency to attach the function of a word-group to some single member of the group, usually an inflected word or a conjunction. Thus it is common in grammars and in syntactical work to speak of the deliberative subjunctive and to say that it is derived from the volitive (or the potential) and is the source from which other "subjunctives," *e. g.*, the subjunctive in indirect questions, are derived. But the function belongs to the whole word-group. In the typical form *quid ego nunc faciam?* each word contributes to the total meaning, though the exact force of *ego* is less clear than that of the others. If either *ego* or *nunc* is omitted, as is sometimes the case, the function is less distinct; if both are omitted, the question is not necessarily dubitative. The subjunctive form also contributes to the expression of the function of the group, though it is not essential, since the same function is occasionally expressed by sentences with the present indicative. But deliberation cannot be expressed by any one of the four words alone and is not therefore a function of any one of them alone. There is no such thing as the deliberative or dubitative subjunctive; to use the term is to attribute the function of the word-group to a single member of the group.

Another and more striking illustration of this tendency is given in Hale's Anticipatory Subjunctive.[1] The subjunctive is used occasionally in subordinate clauses after *ueniet aetas cum*, *ueniet iterum* (*dies*) *qui*, *ueniet aliquod tempus quod;* an example in full is

> *Alter erit tum Tiphys, et altera quae uehat Argo*
> *Delectos heroas.*
>
> VERG. *Ecl.* 4, 34.

Futurity is in all these cases plainly a function of the word-group, of the whole sentence. So far as it is distinctly attached to any words, it is to the verb in the future indicative, which in nearly all cases stands in an emphatic position, and to the noun of time and the adverb (*tum*, *iterum*) or some other word (*alter*, *altera*, *lustris labentibus*). These are the members of the group which contribute the strong future function. Into such a group a subjunctive form may be inserted, because there is in many subjunctive uses an implication of futurity; this is the condition, the common element, which permits the use of a subjunctive form in a group strongly marked with future meaning. But the reason for selecting a subjunctive rather than a future indicative is quite different; it is to express more clearly the element of destiny, of purpose (in the broad sense), of fate. It is not for the purpose of expressing more fully the future idea, already quite sufficiently expressed, that the subjunctive is used, but on the contrary for the purpose of differentiating the whole concept-group from simple futurity and adding another slightly different element to the total meaning. Hale's method here seems to me to involve the error of attributing a function of the whole sentence to a single member of it, with the

[1] Chicago, 1894, pp. 20, 21.

further consequence of erecting an occasional function of a group into a permanent function of a mode. Into this error, if it be an error, he is led by the fact that he is using a functional classification, to the neglect of formal characteristics.

6. Classification by function brings together objects which belong apart and separates objects which belong together.

This is to some extent true of all classification. A division of animal life by habitat, into land animals and water animals, for instance, brings together warm-blooded and cold-blooded animals. A classification by bony structure neglects color, habits of life, edible qualities, etc. This is a matter of course; no basis of classification serves all purposes. Every permanent system of classification is to some extent conventional. But there are degrees of suitability and usefulness. In the division of subordinate clauses motive, efficient cause and inference are thrown together and clauses introduced by *quod*, *quia*, *quoniam*, *cum* and *quando*, taking sometimes the indicative, sometimes the subjunctive, are treated as if they were all alike. Under purpose we put together clauses with *ut*, *ne*, *quo*, *quin* (and sometimes *quominus*) and we might include *qui*, the gerund or the gerundive and the supine. The list of conjunctions brought together under the vague term concession is especially remarkable: *quamquam*, *quamlibet*, *quamuis*, *quantum uis*, *ut*, *ne*, *cum*, *licet*, *etsi*, *tametsi*, *etiamsi;* this is, from the functional point of view and for the purposes of a grammar, a perfectly correct list, but from the historical point of view and for scientific purposes it is a mere jumble of incongruities.

On the other hand functional classification separates things which ought to be kept together. The *si*-clause

of condition, the *si*-clause of concession, *miror si* and *si quidem* are to be found under four different functions. So the uses of *ut* are scattered and *metuo ne* is in one place, *abeo ne* in another and *ne* clauses of result in a third, if they are not entirely ignored on the functional ground that all result clauses are potential and that no potential takes *ne*. But the history of the *si*-clause, of the *ut*-clause or of the *ne*-clause is one connected history and a classification which in effect denies this continuity is a mistaken and harmful system.

If it be asked how a system so defective comes to be employed by investigators, the answer is to be found, first, in the real value of functional classification for certain purposes and, second, in the history of syntactical method.

The real and lasting value of the functional treatment of sentences has been in part pointed out; it lends itself admirably to a clear and logical exhibition of the facts of thought-relations. But beside this it has been a most useful means of teaching exact and critical translation, either into Latin or from Latin into the vernacular. At a time when "natural" methods are so strongly urged and so widely used as they are at present, it is worth while to dwell for a moment upon the other side. The necessary middle step in translation is a thorough comprehension of the thought, a comprehension which goes deeper than the forms in which thought expresses itself in any one language. Without this, translation will not be flexible or idiomatic; it will be tinged with the color of the language from which the translation is made. The failure to secure such a thorough comprehension is one cause of the stiff and mechanical translations to which teachers are obliged to listen in the class-room,

as it is the source of much that is unclassical in modern Latin. Now to this kind of conscious and elaborate comprehension of the underlying thought nothing contributes more directly than the functional analysis of the sentence. When a thorough logical analysis is based upon a knowledge of the meaning of words and is followed by a synthesis, a re-composition of the thought, it results in an understanding of the sentence such as no "natural" method can give, an understanding which is the solid foundation for criticism, for interpretation and for translation, and which is in itself a valuable means of mental training. It is in part the recognition of this kind of value which has led to the retention of functional classification in grammars and in the school-room. And the fact that almost all syntacticists are also teachers has led to the use of the same system in investigation, where its advantages disappear and its defects become prominent.

A second cause which has led to the retention of functional classification in the science of syntax is to be found in the history of syntactical method. It would be incorrect to say that this system is purely a logical system, but it is correct to say that it is the product of logical and metaphysical views of language. The functions upon which the classes are based — time, place, cause, purpose, etc. — have not been selected and named for the purpose for which they are now used. Some of them are categories of thought established by Aristotle and employed in logical systems down to the end of the eighteenth century, others are terms which acquired their meaning and importance in metaphysics, and they have come over into syntax and held their place there primarily as a result of the influence of logic and metaphysics upon all thought and especially upon Latin

grammar. This is the explanation of some of the oddities of our functional classification. It is for this reason that *cum* clauses with the subjunctive expressing an inference and *quod* clauses with the indicative expressing a motive are classed together under the general head of cause; cause was an important logical and metaphysical category, while inference and motive were not. Our syntax has therefore to this day disregarded in classification both the formal and the psychological differences between the *cum* clause and the *quod* clause under the influence of the metaphysical tradition. In the same way we have a functional distinction between the ablative of time and the ablative of place, though in truth the functions, so far as they can be separated from the stem-meaning, are identical and the only difference in meaning is in the words themselves. It is a curious fact that, in spite of its generally logical character, the scheme should make no separate class for clauses of place; this is of course because such clauses call for no special "rules," as the clauses of time do, and is an illustration of the influence of teaching upon science. All this does not mean that the functional system is now properly to be called a logical or metaphysical system nor that it has been uninfluenced by psychological and formal considerations, but only that it is an inheritance from logic and metaphysics and that a large part of its hold upon syntax is in fact the tenacious hold of the traditional.

It is antecedently probable that a system which has been unconsciously shaped by various and incompatible influences will be less suited to entirely new uses than a system which is the product of the newer aims or is deliberately devised to meet the newer demands. But it is a fact, which should receive the fullest recognition,

that functional classification has been in part accommodated to the changes which have taken place in the aims and consequently in the methods of syntax. But it is only a partial accommodation. These changes are the result of the rise of syntax to the rank of an independent science. The service which it may render to interpretation and translation and its value as an educational tool are not, from this point of view, considerations of the first importance; it must seek its own ends by methods of its own. These ends are at present psychological interpretation and historical explanation, and to neither of these is a functional system adapted.

It will no doubt be said by scholars who use a functional method that the content of the terms for functions has changed and that purpose, cause, time, place are now employed in syntax with a psychological meaning. This is true, but it is not quite the whole truth. The difference between logic, metaphysics and psychology is in the point of view; the objects studied, the material of these sciences, are the same, namely, the soul and the laws of its working. This subject-matter logic examines with reference to the forms of thinking, and metaphysics with reference to the laws of being; the object of psychology is not so much the testing of spiritual and mental activity by reference to any laws as the understanding of the actual process in its details. It may be said that logic and metaphysics are more distinctly classifying and testing sciences, while psychology is more interested in the understanding of activities. In logic the end sought is the bringing of a certain kind of mental activity under a certain category; in psychology the end sought is the detailed knowledge of the mental operation, and to this end classification, that is, comparison with similar mental operations, is only a

means, a mere step in the scientific treatment, a convenience, not an end. Now in this respect functional classification more nearly resembles logic than psychology. The placing of a certain clause in the category of purpose or of cause is the end, the object aimed at. About such questions, either the number and naming of the categories to be employed, as in regard to conditional sentences, or the placing of a particular clause in this or that category, the discussions of functional syntacticists center. The inevitable result of over-attention to classification is a diversion of attention from details. It has been, to take an example, beyond question a gain to have will and wish brought forward as the fundamental ideas of the Latin subjunctive and a further gain to have the potential meaning regarded as another distinct function. These lend themselves to psychological treatment somewhat more easily than the older meanings of subordination or subjectivity, though the fact is sometimes overlooked that even these terms may have a psychological content. But the discussions looking toward the placing of the various subjunctive sentences in one or another of these classes have contributed very little to psychological interpretation. At its worst it has consisted in translating each subjunctive by some English auxiliary verb and on this basis settling its classification; at its best it consists in finding in a particular case the element of will or wish or of the potential and on this ground assigning it to its appropriate class. When it happens that two of these elements are present at once, discussion follows, a fruitless discussion because the shield is golden on one side and silver on the other. It is, indeed, quite inevitable that, starting with these very general and imperfectly distinguished elements of meaning, the student

should be satisfied with finding one or another of them in a particular form and should regard his task as ended. But the defect of the method is that the meaning of the form may contain many other elements beside those of will and wish, the omission of which leaves the psychological interpretation incomplete and one-sided. The mere determination of the presence of a single element, even if it be the dominant element, contributes but little to an understanding of the working of the mind as exhibited in modal forms. The truth is that, while the content of the terms of functional classification have been in some measure adjusted to psychological treatment, the actual process of classification shows plain traces, as the terms themselves do, of the logical origin of the whole system. The movement of syntax toward psychological interpretation will require either a much greater adjustment of the functional system or a complete abandonment of it as the principal tool of scientific discovery.

The deficiencies of functional classification as a means of determining historical sequence and the derivation of one function from another are partly incidental, having to do with the steps of the reasoning, partly inherent in the system. Taken together they seem to the writer to make historical investigation by means of functional treatment almost an impossible combination of terms. This statement will no doubt appear to functional syntacticists either entirely wrong or greatly exaggerated. The grounds upon which it is made are therefore given in some detail.

Either of the two sides of language may be made the subject of investigation with reference to its history; there may be a history of meaning or a history of form, or, to bring the matter to a more practical point, we

may trace the history of a meaning as it appears in a succession of different forms (words or word-groups) or we may trace the history of a form as it expresses a succession of different meanings. Either procedure is possible, whether with single words and their meanings or with word-groups. In semasiology there appears to have been some hesitation between the two methods; at least the earlier definitions seem to suggest that by semasiology was meant the study of the various forms through which a single idea had been expressed. Thus it would be possible to begin with the concept *horse* and to trace its expression in successive words or with the concept *to say, to speak*, and follow down the different aspects of this concept as reflected in the many verbs which have carried the elements of it. But the difficulties of this kind of investigation are evident; it would require great precision in definition, great knowledge of the actual meaning of words and a very wide range of information. It would be in fact possible only after the foundation had been laid by a great number of separate studies, each dealing with a single verb — with *orare*, *dicere*, *loqui*, *narrare*, etc. That is, it would be a possible and an interesting manner of presenting the results of other studies, but as a method of investigation it is practically impossible. Historical semasiology has therefore chosen the other course; it begins with the word, the form, and follows the history of the word out into its varied and historically connected meanings. It has been remarked above that syntax, which is the semasiology of word-forms and word-groups, has much to learn from the semasiology of words, and this is one of the lessons. For if the history of word-meanings is too difficult to be attacked directly and must be approached through the lexical method, much

more is the history of concept-groups and concept-relations too difficult to be followed directly. To start with the concept of cause, with the causal function, and follow it into all the forms in which it finds expression would carry the investigator into word-meaning, case-syntax, the syntax of prepositional phrases, the syntax of more than one subordinate clause and the syntax of the paratactic relation. In the same way the function of purpose is expressed by single words, by prepositional phrases, by participles, by gerunds and gerundives, by the supine, by several different clauses and by parataxis. To follow the history of the expression of either of these functions in Latin would be an extremely difficult task, in fact, an impossible task until the history of each of the forms of expression had been separately worked out, that is, until formal syntax was complete.

As a matter of fact no such elaborate and systematic treatment of the historical expressions of function is ever attempted. The method in actual use is a compromise in which formal and functional classes are used without distinction. The ablative of cause and the ablative after *utor* are placed side by side; the dative of advantage (functional) and the dative after *similis* (formal) are treated alike; the functions of cause or purpose are not followed out into all their expressions, by case, participle, etc., but are studied only in the clauses of cause and purpose, with *cum*, *quod*, *qui*, *ut*, etc. This compromise in the system results in a loss of breadth of view and conscious working toward a distinct end without the compensating advantages that would follow a frank abandonment of functional treatment.

In general, the directions in which it would be said to

have contributed to historical syntax are, first, in the establishing or suggesting of a historical connection between some of the cases and their Indo-European predecessors; second, in making a similar connection between certain subjunctive functions and the corresponding original meanings; third, in connecting the uses of the subjunctive in certain subordinate clauses with corresponding uses in independent sentences. These are really reducible to two, connections with Indo-European functions and connections between subordinate clauses and independent sentences. As to the first, it is not in point here to repeat what has been said above (pp. 32 f.) as to its speculative character; the question is rather as to the method used in suggesting or establishing historical connection. That method is based upon resemblance in function. Its fundamental principle, acted upon but not formulated, is that a sufficient degree of resemblance between an earlier and a later function of an inflected form indicates a historical connection between the two functions. In this way a resemblance between the ablative of cause and the early ablative proper is held to show that the ablative of cause is descended from the Indo-European ablative and the ablative absolute from the locative. In the same way uses of the subjunctive, named by their function volitive, anticipatory, optative, potential, are regarded as descended from Indo-European functions, and uses of the subjunctive in subordinate clauses, of purpose, result, cause, time, are connected with one or another function of the mode in independent sentences. A brief sketch of the method which he follows is given by Hale[1] in a discussion of the origin of the *dignus qui* clause. It consists in asking the question "Will the Volitive idea

[1] In a periodical called The Latin Leaflet, Brooklyn, April 22, 1901.

[or the Anticipatory or the Potential] supply a natural and easy starting-point?" and answering it by saying, "It seemed to me that it did . . . I therefore . . . placed the construction under the head of the Volitive." Hale explains further that he changed his result by asking the question in regard to the "Subjunctive of Obligation or Propriety," which seemed to offer a still easier starting-point, but the method is the same. It is nothing more than seeking for a resemblance as close as possible between two uses of the subjunctive, in independent sentences and in a subordinate clause, and holding that such resemblance indicates historical connection. This method is probably the one followed in classifying ablatives as derived from the ablative proper, the instrumental or the locative; the earlier functions are defined, though necessarily somewhat vaguely, by comparative syntax and the later Latin uses are classified according to their more or less close resemblance, the ablative of cause as an ablative proper, manner as instrumental, the ablative absolute as locative, and so on.

This method is liable to several incidental errors, the possibility of which lessens the value of the result. In the first place, there may be close resemblance in function where it is clear that there is no historic derivation. The genitive after *similis* is scarcely distinguishable from the dative and the ablative of characteristic or quality very closely resembles the genitive of characteristic, yet we do not say that one is descended from the other in the sense in which the ablative absolute is said to be descended from the locative. A prohibition with the imperative is often indistinguishable from one with the present subjunctive, and functions of the present indicative and the present subjunctive, of the present, the imperfect and the perfect indicative, of the perfect and

the pluperfect, overlap one another frequently. It is, indeed, a law of language that meanings of words and functions of forms extend themselves until they are met by the meanings and functions of other forms on a neutral ground where either may be used. The existence of such doublets is one of the common facts of language and the close resemblance of meanings derived from widely distinct sources occasions no surprise.

In the second place, even when similarity of form makes a historical connection of some kind probable or certain, the determination of the actual line of connection cannot be inferred from the apparent closeness of the resemblance, by finding the "natural and easy" line. Here again syntax may learn from semasiology that meaning is often carried from word to word by the most incidental associations, in the most unexpected and zig-zag lines. The older etymology would afford illustrations of the mistakes which are likely to result through inferring historical connection from resemblance in meaning. The meaning of a word or the function of a form is not single but composite; it contains many elements, and any one of these may be the middle step through which two somewhat different meanings are connected. Moreover, the determination of the dominant element in a function is in most cases an impossible task; the resemblance between the ablative absolute and the ablative, locative or instrumental depends altogether upon the selection of the typical instances.

These liabilities to error are, as has been said, rather incidental to the method of tracing historical connection by function than inherent in it. But the conception of the process by which function is transmitted and shifted is such as to involve more fundamental errors, errors of principle, not of practice.

The function of an inflected form is the word-meaning so modified as to express the relation of the concept of the word to other concepts. It exists only in association with an inflected form, not as something apart by itself, having an independent existence. If the inflected form and the modified meaning continue in use without change, maintaining their association, there is no transmission of function. Transmission and extension of function is the carrying over from one word to another of the inflectional variation and the associated modification of meaning. The necessary condition of this is an association of some kind between the two words, an association which may come from a common element in the meaning of the two or, what comes to the same thing in the end, from their frequent use together. By virtue of this association the second word is varied in form and modified in meaning as the first word had been. In other words, function passes from word to word as inflectional variations are extended, by analogy resting upon association. And shift of function takes place in the same process. The second word is not identical in meaning with the first, but slightly different, and the function is therefore slightly changed. If we suppose that the ablative form passed from *gladio* with an instrumental meaning to *poculum*, it could not carry the instrumental meaning unchanged. The meaning of *poculum*, the different nature of the object, would in some connections suggest a locative meaning for *poculo*, and if from *poculum* the ending and the function passed over to some other word whose meaning still more distinctly suggested the idea of *in*, the function would be still further modified and shifted. So also with word-groups; the transmission of function from one group to another is conditioned upon an association between the groups, in

use or in form or in the meaning of parts of each. In either case the function plays the passive rôle; it is transmitted, is modified; but the necessary condition lies in the associations of form and word-meaning.

Now the defect of the method under discussion is that it follows the passive line of connection. If there were sufficient data and the facts could be set forth in proper order, the functional line would consist of a series of gradually changed meanings, of the ablative for example, extending from the meaning separation or source to the meaning cause. The other line would consist of a series of words connected by associations of different kinds and having meanings varying more or less. The first series would show the effects only; the steps of the process and the working of causes would lie wholly in the series of associations. The following of the first series is a barren process, having as its result only the facts of connection, like a chapter of genealogy from the Book of Genesis. The following of the second series is a study in processes and causes. The first is historical only in the sense that a succession of events is history; it is historical syntax with almost all that is instructive and interesting left out.

Classification by syntactical form is in general the direct opposite of functional classification. Its advantages and defects have therefore been suggested by contrast in discussing functional treatment and may now be the more briefly described.

Its disadvantages are chiefly in the presentation of results and in its use in teaching. A presentation of the forms of a particular construction, if it is full enough to gain the advantages which the system offers, will be very elaborate and complex. A formal exhibition of the

subjunctive in independent sentences will divide the cases according to the presence or absence of the negative and according to the kind of negative (*ne*, *non*, *nullus*, etc.). Each class might then be subdivided into purely independent and paratactic. The next subdivision would be by the kind of sentence, interrogative or not, then by tense, by person, by number, by voice, and by the meaning of the verb itself. The presentation of the *si*-clause in Lane's Grammar, §§ 2025–2088, which takes into account only the mode and tense of the two verbs, gives more than fifty classes, not including some special uses like *miror si*. As compared with the ordinary classification into four or six forms, this is extremely elaborate. Yet it does not make a subdivision by person or by verb-meaning or by the presence or absence of adverbs, negative or other, all of which have a distinct bearing upon the expression of the relation of protasis and apodosis. A complete and detailed presentation of all the forms of the conditional sentence would be intolerably long and complex as a means of making a student acquainted with the facts.

A further disadvantage, more or less common indeed to all schemes of presentation, is the separation of things which belong together. If the main classes are based upon mode and tense, then the protases containing a verb of thinking or of saying will be scattered about in different places in the system. This is of no importance to the investigator, but it is confusing in a school grammar.

Though a formal classification results finally in a study of functions and relations, it does not contribute so immediately to interpretation and critical translation as a purely functional arrangement does. This is no slight defect and must be set down as a large item to the credit

of the functional system. It carries with it all that is said above in regard to the value of logical analysis of sentences as a means of instruction and mental training.

The advantages of detailed formal classification consist in the main in the avoidance of those defects which are inherent in or incidental to a functional scheme. It lessens the liability to fall into forced interpretation and translation, because the attention is fixed upon the form in making divisions and classes and the determination of meaning is the last step. It removes entirely the danger of large classes, of the symbolic use of functional names and of the undue prominence of nomenclature. It distinguishes with much precision between group-function and the function of an inflected form. It is especially superior to functional classification in precision and in the statement of the details by which a particular species may be identified. Thus the twenty or thirty formal categories of the *qui* clause made by Dittmar (see p. 19), though they are far from exhaustive, are immensely superior to any of the functional schemes, *e. g.*, to that in Bennett's grammar, appendix, or to that in Hale's *Cum*, as a means of identification. It is possible to write of a *Gaius primus est qui* clause with the expectation that the reader will know what the object under discussion is, but a "Determining [Relative] Clause of the Developed Type" is a kind of thing about which two scholars might write at some length only to find in the end that they had been talking of two different objects. This superiority of formal classification is greatest with reference to word-groups; in case-syntax it is much less marked, since a formal classification of ablatives or datives would depend in large measure upon the meaning of the noun. The nature

of the ablative *poculo* depends upon the meaning of the word, whether it is an instrument for holding wine ready for drinking or the vessel in which the wine is sparkling. But this, on the other hand, is determined with much precision by the context; when it still remains vague, the very vagueness is a fact of language, as much to be noted as any other.

The most important point of contrast between the two systems is that which relates to the two chief characteristics of the philological research of the present day, psychological interpretation and historical explanation. The central requirement for reaching either of these ends is minuteness of observation. Upon the small details of language both the psychology and the history of speech depend. The formal treatment of the *qui* clause, for example, would depend in part upon the form of the clause itself, the mode, person and voice and to some extent the tense and number of the verb, as well as upon the other significant words in the clause. But it would depend quite as much upon the antecedent and observation in this direction would not be confined to the presence or absence of demonstratives or a certain number of adjectives, *multus*, *unus*, *dignus*, a superlative, but should be carried into minute subdivisions based upon the meaning of the noun. Proper nouns should be distinguished from common, names of persons from names of things, abstracts from concretes, and so on. Distinctions even more minute may be made with good results. Thus in Plautus the *qui* clause after the name of a character in the play is almost always colorless, the subordinating function is slightly felt and suggestions of cause or contrast or purpose are rare. But the names of gods or mythological heroes are followed by *qui* clauses which even with the indicative show traces of

group-function. The name of a god in an appeal is followed by a *qui* clause giving the reason for the appeal, as in *Aul.*, 396, *Apollo, subueni . . .: qui in re tali aliis iam subuenisti antidhac* (the text is somewhat corrupt). The mention of a god leads to the addition of his special characteristic (*Mercurius, Iouis qui nuntius perhibetur, numquam aeque patri Suo nuntium lepidum attulit, quam ego nunc meae erae nuntiabo, Stich.*, 274) or the mention of a mythological character is followed by a *qui* clause mentioning his most famous deed (*Nam isti quidem hercle orationi Oedipo Opust coniectore, qui Sphingi interpres fuit, Poen.*, 443 f.). But as the reason for introducing the name of a god or hero is usually connected with his attributes or deeds, these clauses almost invariably have a causal-adversative force: "Mercury, though he carries messages to Jove, never had a finer piece of news;" "this speech needs an Oedipus, for he could read any riddle." Similar minute differences in the function of the *qui* clause may be detected by dividing names of things from names of persons and concretes from abstracts. Taken by themselves they are of slight account, but when a number of them are put together, they make a distinct and solid contribution to the psychology of the *qui* clause. Similar variations may be noted in the *ne* clause by subdividing according to the meaning of the leading verb. The history of the process by which the *si* clause has come to express various shades of probability or possibility or unreality will never be unravelled by the functional classification now in vogue; this extremely interesting subject has lain for years untouched because of the barrenness of the method of treatment. But a careful formal study[1] will un-

[1] Such as that begun by H. C. Nutting in the Amer. Journ. of Philol., XXI, 3 (1900), No. 83, pp. 260 ff.

doubtedly give results of interest both to the psychology and to the history of the conditional sentence.

The advantages of a classification by form, including under that head word-meaning, may be summed up in the statement that this kind of syntactical treatment rests solidly on facts and leads directly to processes and laws. Syntax is exposed to two dangers or, it may be said, is at present suffering from two evils. The first is the evil of theoretical speculation, dealing with periods where no facts are obtainable or, within historical periods, too far removed from the facts. The second is the evil of unconnected and meaningless accumulation of facts. The corrective of the first is more minute observation, the corrective of the second is more attention to the meaning of facts. These two are really one, for they combine upon the single point of systematic accumulation of facts interpreted by many-sided observation and study. For the accumulated observations of the meaning of facts, the patient interpretation of the phenomena within a narrow range, grows rapidly toward the understanding of larger fields, and many small laws put together make large laws. Speculation as to Indo-European origins is more attractive and more brilliant, and the mere recording of facts for others to interpret is easier, but neither is so fruitful as work which is at once more minute and more systematic.

There has been much discussion, especially with reference to the natural sciences, of the best methods of classification. The points at issue have to do mainly with classification as a means of presenting scientific knowledge in intelligible form or, not infrequently, with a classification which shall serve the purposes both of presentation and of investigation. The difficulty of finding such a system comes from the attempt to com-

bine the two different purposes. In syntax it is quite as great as in the natural sciences, but it is a difficulty which the scientific investigator is not called upon to face. He may properly regard classification as a mere convenience, a tool to be used for a certain end and then put aside. From this point of view the permanence of the classes is of no account nor is it necessary to consider whether the characteristics upon which the classes are founded are primary or secondary. Any number of different classifications may be made for different purposes. Thus the *ne* clauses may be classified by the tense of the subjunctive, to find out whether this affects in any way the function of the clause. Then the same facts may be re-classified with reference to the person of the verb in order to determine whether the second person shows stronger evidence of connection with the prohibition than appears in the third person. A classification according to the meaning of the verb of the *ne* clause will bring out the peculiarities of expectation and of thinking wrongly, like *ne erres, ne frustra sis.* The meaning of the leading verb, whether it is a verb of saying, simply, or of saying with a tone of command, whether its meaning repeats the idea of the negative in the *ne* clause or not, whether it contains an element of hindering or of preventing — each of these divisions and subdivisions will lead up to a variation in the function of the clause both more precise and more instructive than the ordinary functional division into object clauses and clauses of purpose. In this way classification is a means of answering the special questions which occur to the investigator as he studies the general problem from different points of view. The classifications which are based upon the meaning of words are especially useful and especially instructive in regard to the way in

which the same material must be classified differently with reference to different questions. Thus, if the inquiry be in regard to the uses of the subjunctive in independent sentences, the verbs used may be classified according to their modal meaning, that is, according to the elements in their meaning which favor or hinder their use in the expression of desire or of opinion. It is evident that the use of *uolo*, *opto*, *credo*, *possum*, of *scio*, *uideo*, *audio*, will depend largely upon their meaning, and that all verbs may be arranged in classes with reference to their modal behavior. The same verbs may again be arranged in a totally different set of classes according to their temporal meaning, verbs of beginning, of completed action, of existence and state. In the same way nouns may be classified according to the presence in their meaning of temporal elements or local or modal or instrumental or causal, and such a series of classifications would certainly throw much light upon the functions of the ablative. Even a functional classification may sometimes be used in investigation as a means of discovering formal differences which it is difficult to locate and of breaking up a large class into smaller divisions. For classification which halts before it reaches the utmost limit of significant differences is incomplete and in the effort to discover all significant differences it is often necessary to make formal classes which afterward prove to be of no value. It is easy to throw aside a useless classification, if it shall appear that the formal difference upon which it was founded has no corresponding difference in function.

Used in some such way as this, pursued into minute details, guided by a general knowledge of the nature of the problem, classification by form is the most useful tool of the syntactical investigator.