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ARTICLE I.

PHILOSOPHICAL GRAMMAR, OR THE LAWS OF THOUGHT AS
APPLIED TO SYNTAX BY DR. KARL FERDINAND BECKER.¹

By N. Porter, Professor in Yale College.

'WHAT is language?' Few questions occur to the philosopher more frequently than this. Few questions have in fact been discussed more frequently or in a greater variety of forms by

¹ Organism der Sprache von Dr. Karl Ferdinand Becker. Zweite neubearbeitete Ausgabe. Frankfurt am Main. 1841.

Das Wort in seiner organischen Verwandlung. Von Dr. K. F. B. Frankfurt. 1833.

Die deutsche Wortbildung oder die organische Entwicklung der deutschen Sprache in der Ableitung. Von Dr. K. F. B. Frankfurt. 1824.

Ausführliche deutsche Grammatik als Kommentar der Schulgrammatik. Von Dr. K. F. B. Zwei Bände. Frankfurt. 1842.

Schulgrammatik der deutschen Sprache. Von Dr. K. F. B. Siebente Ausgabe. Herausgegeben von Theodor Becker. Frankfurt. 1852.

Auszug aus der Schulgrammatik der deutschen Sprache. Von Dr. K. F. B. Frankfurt. 1845.

Leitfaden für den ersten Unterricht in der deutschen Sprachlehre. Von Dr. K. F. B. Fünfte Ausgabe. Frankfurt. 1845.

Ueber die Methode des Unterrichts in der deutschen Sprache, etc. Von Dr. K. F. B. Frankfurt. 1833.

Der deutsche Stil von Dr. K. F. B. Frankfurt. 1848.

Lehrbuch des deutschen Stiles von Dr. K. F. B. Herausgegeben von Theodor Becker. Frankfurt. 1850.

thinking men in all ages. What is that in man which makes it possible for him to give expression to spiritual states by corporeal sounds? How is it that one man can interpret these corporeal sounds, employed by another; can know what are the thoughts and feelings which they express; can discern through these media the realities which lie behind?

What is it which prompts man to select one sound rather than another, to express a particular thought? What is it that teaches the man who hears the sound, that it expresses one thought rather than another? Are these sounds natural or arbitrary symbols? Were they originally selected by convention, or suggested by instinct, or taught by revelation, or miraculously evolved through inspiration?

Again, What is the relation of language to thought? Can man think without words? Does language itself constitute or originate thought? What is the exact measure of the aid which the one renders to the other? What the mutual dependence of the two? How is it that man is forced to express his thoughts, in order fully to appreciate their truth; to define their limits, in order to retain and reproduce them with precision? How far is science indebted to language, and how far does science form and control language?

Questions still more curious and intricate, are such as these: Is language a purely spiritual attainment, so that it can be put off with the body, and is learned by the soul by means of its accidental and temporary connection with the material world—does it grow out of a special provision of nature which will cease, when the body ceases; or does the power of language indicate that the soul shall always need a body and always communicate by corporeal symbols?

These questions, and others which might be given, have been earnestly agitated by almost every school of philosophers and in every age. Perhaps none of them can be satisfactorily answered. To discuss them, it may be, furnishes neither profit nor promise of good.

There are questions of another sort, in respect to language, which it is worth while to ask. Language is known at the first glance to be the expression of mental states by physical sounds. These sounds may be eked out or assisted by written characters or expressive pantomime. But, whatever the symbol or medium may be, its only value consists in the fact that it is the expres-

sion of thought and feeling. This is a fact which no one can dispute. It may be used as a principle on which we may safely proceed in more particular inquiries. To such inquiries we may hope to find satisfactory replies. If language is the expression of our thoughts and feelings, then differences of thought and feeling must require differences in our words and in the structure of language. These differences, so far as they are essential to language, can be fully accounted for and explained by a reference to the laws of thought and feeling. If we then consider that the proper medium of feeling is *tone* as distinguished from articulate sounds, and that feeling is expressed in articulate language only as the thoughts are uttered which excite feeling or which are suggested by feeling, we are forced to account for the materials and the structure of language by the nature and laws of thought. The medium of expression, the phonetic element, may have laws and principles of its own. Bodily organization, climate, the cultivation of a people, its isolation or its frequent intercourse with surrounding nations, these and many other circumstances, may give to one people sounds and combinations of sounds which are peculiar to themselves. But a sound without a thought is not a part of language; and a peculiarity of sound, except as it expresses some distinction of thought, is not used for the purposes of language, and is hardly a peculiarity of language at all. Whatever explanation is given of the phonetic element in speech, which does not go back to a distinction of thought, does not reach the last and final analysis, and fails to carry us to its master principle and its commanding law. Combinations of sound do not of themselves make language, or the parts of language, but only those combinations of sound which express combinations of thought. However completely, so far as the sounds are concerned, we may account for the variations in the external form of sentences among different nations and at different times, yet if we do not show how all these differences of external form are completely at the service of the thinking spirit, which uses them for its own purposes and subjects them entirely to its own control, we do not explain that which gives them the dignity and importance of being constituents of language. The true key to the philosophical analysis of language is, then, the analysis of thought. The only satisfactory explanation of the various kinds of words which language employs, i. e. of the so-called parts of speech, is to be found in the distinctions which

are made by the thoughts of man. The only satisfactory solution of the combinations of these words into sentences, is to be sought in the necessary combinations of thought which the laws of man's nature impose upon him. Just so far as we can carry an analysis of thought, just so far can we carry our analysis of language. If this analysis of thought is incomplete and unsatisfactory, our analysis of language must also be incomplete and without satisfaction. If there are points in respect to which this analysis yields no sufficient light, we must expect that the same obscurity will extend to language. If the analysis of thought is to be rejected as metaphysical and over-refined, then the philosophical explanation of the constituents and the laws of language must be abandoned for the same reason. On the other hand, if it aid the thinking power to express its thoughts in language, that it may view them clearly and with often repeated inspection, if man can best find out what is in him by expressing it or seeking to express it in speech, then the study of thought may be aided by the study of language; and, while we seek to explain language by a reference to the laws of thought, we shall enlarge or correct our views of the laws of thought themselves, by the infallible test which language furnishes. Every real law of thought, so far as it is revealed to consciousness, will be manifest in language. Every great principle received by the mind and the actings of every power possessed by the mind will be revealed in speech. If we believe too little in respect to the mind, language will expose the deficiency. If we believe too much, language will fail to sustain and vindicate our judgments. If our distinctions are not sufficiently clear and well defined, language will force us to make new distinctions. Leibnitz has well observed: "que les langues sont le meilleur miroir de l'esprit humain, et qu' une analyse exacte de la signification des mots feroit mieux connotre que toute autre chose les opérations de l'entendement." *Nouv. Ess.* l. III. c. 7, § 6.

These principles in respect to language, determine at once the true idea of the grammar of a language, i. e. of a grammar which is truly philosophical. Grammar is the science of a language. But there can be no science of any language which does not explain language by the laws of thought. The words may be classified by other principles than this, and the classification may be convenient and complete, but it will not be scientifically thorough. The structure of sentences may be reduced to a system

of rules, based upon other laws. These rules may explain every combination, and be easily applied, but they do not satisfy the man who would go deeper in his investigations. No grammar can be truly scientific and philosophical, which does not study language from the true point of view, and develop its laws from the nature of the mind that has imposed them.

Such are the views of the nature of language, and of what constitutes the grammar of a language, which any thinking man would develop *à priori*. The inquiry is interesting, how far they have been accepted and applied by grammarians, both ancient and modern. The ancient grammarians began upon the right basis. Aristotle and the Aristotelians regarded grammar as subordinate to logic. The leading principles of grammar were founded upon the Aristotelian logic, and the effort was constant to apply the received logic to all the problems of grammatical analysis. The curious student may find in Harris's *Hermes* a full and interesting view of the universal grammar of the ancients. He cannot but be impressed with the correctness and comprehensiveness of their fundamental principle: that the grammar of a language can only be explained by the laws of thought. The acuteness and thoroughness with which the received logic was applied to this use must command the respect, if not the admiration, of every one who sympathizes with the aims of the true philosopher even when these aims fail to be crowned with success. Such a reader will observe that grammar, as studied and taught by the ancients, was not the stiff and dead system which has been handed down to us from the Scholastics, but that it had the freshness and the life of an intellectual science. He will notice, also, that the grammar was as good as the logic, and no better; that, inasmuch as the Aristotelian logic and psychology failed to present a complete analysis of the mental processes, so the analysis of language which was based thereon failed to be complete and systematic. Some of the parts of speech and the forms of syntax are explained by the laws of thought; others by a reference to the structure of language as it then existed; but there is not a complete and systematic development of the elements and combinations of speech from within outward, by the laws and ends of the mind itself. Still the ancient grammar, like the ancient logic, is a wonderful monument to the acuteness and patience of the old thinkers, and none but an ignoramus or a shallow thinker can regard either

with any feelings except those of admiration. But as the logic ceased to be applied logic, and degenerated into a science of forms, so did grammar; and as logic ceased to have life in itself, so did it become incapable of imparting life to grammar. Both stiffened together; logic into a mere external analysis of certain processes of thought as expressed in language, and grammar into a merely external classification of the phenomenal forms of speech. So did grammar continue till after the revival of letters, as thorny and dry and unfruitful as the logic of the Schoolmen.¹ The old forms of the ancient grammarians were retained, bereft of their original meaning, a system of merely external rules, in which the scholar was trained to the acquaintance, first of Latin, and afterwards of Greek. When the modern languages had assumed a fixed shape and were used for the purposes of literature, they in their turn became the subjects of grammatical research, and the old terminology and old rules which had been used upon the Latin and Greek were wrought into the grammars of the modern tongues. Such was the condition of things till the time of the Port Royal Logicians. These men breathed some life into logic by illustrating its application and its uses. They also breathed life into grammar, and it is from them that the modern views of general and particular grammar have received their shaping, till within a comparatively recent period. These systems of grammar have been useful. No man can deny their usefulness. By the aids which they have furnished, the student has been aided in acquiring the knowledge of languages which were not vernacular, and in the analysis of his own. But to the philosopher they are deficient in scientific completeness. They do not proceed from any central principle. There is little systematic coherence between the several parts. Some things are explained by the laws of thought; others by the convenience of expression; others by the traditions of the old grammarians. If we open, for instance, the *General Grammar* of De Sacy, what are its merits, when it is tried by the ideal of what a philosophical grammar should be? The parts of speech are explained, some of them by their nature, others by their uses. A reason is given in every case why such a part of speech is needed and used. The old classification is in some respects altered for the better. But the relation of the parts of

¹ Cf. Trendelenburg *Logische Untersuchungen*, VII. § 15 sqq.

speech to each other and to the laws of the mind is not shown. No explanation is given as to where the mind begins in thinking its elementary notions into the primitive or central parts of speech; no account of the process by which the other parts of speech come into being as the mind marches forward; no reason why no greater number is needed because the mind having created the materials which it needs, requires no more. For aught that appears, twenty parts of speech might exist as well as ten. Syntax is also resolved by certain combinations of words known to all grammarians, "time out of mind," as *agreement* and *government*. But what agreement and government are, or why the mind is forced to unite its notions by these relations is supposed "to come by nature;" certainly the nature of these relations is left unexplained. They are treated as original and ultimate facts.

Most of the particular grammars are open to the same objections. The grammars of the Greek and Latin languages which were used a half century ago, some of which, we believe, are still in use in England, present only a barren aggregation of paradigms and rules, all received by tradition from the fathers. Important improvements have been made upon these grammars, as light has been thrown upon particular points of etymology and syntax, and the reasons of principles and rules have here and there been more distinctly developed. The great attention given to comparative grammar, and the wonderful advances in that science, have imparted to many of the driest details the dignity and interest which pertain to a science of realities. The discovery and demonstration that the same root is common to all the languages of a single family; the tracing of this root through the changes which it has undergone; the development by a copious induction of the law of inflection and phonetic change which holds good in each particular language; these have given to dry bones a covering of flesh, and have animated what were once the disjointed fragments of a skeleton with the uniting force of an organic life. Deeper and more systematic views have been attained in respect to the import and uses of the cases of the noun, the moods of the verb, the relations of the parts of the compound sentence. But, with all that had been gained in these respects, the best grammars still failed to satisfy the ideal of what a grammar should be, and the study of grammar was not yet invested with the interest which

belongs to scientific investigations. The difficulty still remained unsolved. Language was known to be constructed by and for the thinking mind, and it was due to its nature and its dignity that it should be explained by the principles which are furnished by the mind itself. The best grammars, however profound in their researches, ingenious in suggestions and exhausting in research, did not reach any fixed principle on which to build. The basis of their systemization was itself unexplained. Cross divisions continually appeared in the explanations of the rules of the so-called agreement and government, those magic words which were to bind words into sentences, as it were, by talismanic force.

These deficiencies have been supplied to a considerable extent by the writings of Dr. Karl Ferdinand Becker, the titles of whose principal works are named at the beginning of our Article. It is with reference to the great services which he has rendered to the science of grammar, that we have allowed ourselves the preceding disquisition respecting the ideal of the science and its actual deficiencies. His principles are to some extent known to our countrymen by a study of some of the treatises to which we have referred. They have been applied by Kühner to the grammar of the Greek and Latin languages, and three of the grammars of Kühner have been translated and are somewhat widely circulated in this country. It has seemed desirable, however, that some intelligible account should be given of the philosophical system itself, in order that the applications which are made by Kühner might be better understood, and also that the attention of linguists and philosophers might be drawn to the study of its philosophical groundwork. We do not give this system as our own. We do not vouch for the soundness of all of these principles, the correctness of the inductions, or the aptness and propriety of all the applications. On the other hand, we do not give the system in the language of the author, but in our own. We shall not develop it from his point of view, but from our own. We propose to explain and illustrate its principles in our own way, and in such a way as will best satisfy the minds of our readers. We are well aware that the distinctions are subtle, and that some of them have not yet been accepted by English philosophers. On the other hand, they are made with great precision, they are sustained with consistent severity, and applied with scientific rigor. Our limits will not permit us to give a full

and extended account of the entire system of Becker. To do this would require a large volume. All that we propose is, to explain the application of his principles to the syntax of language. In this way we hope to recognize and explain the most important of his principles so far as they interest the logician and intellectual philosopher. So far as they presuppose and require the knowledge and the aid of comparative grammar, they do not come within our province. It would be desirable that the expounder of this system should be acquainted with both these departments of science, but as such a critic is not soon to be hoped for, and as the logical is distinctly separated from the philological element, we trust that an intelligible, if not a satisfactory exposition, can be given of the one, with only an occasional reference to the other.

The word *syntax* signifies an arrangement according to some principle or rule. An arrangement implies a combination, a combination, elements which are united, and the combination supposes that the principles which regulate it, are to be evolved from definite sources and are somehow to be determined. If the rules of syntax can be explained by the laws of thought, then these laws must explain the nature of the elements which are to be united, the necessity or the possibility that they be joined together, and the conditions under which they can be formed into a sentence. This union of words is not arbitrary or accidental, otherwise words might or might not be thus combined as caprice or accident should decide. There must be something in the very nature of the word, which fits it to be a part of the sentence, and something in the very nature of the sentence which requires that it should be articulated into words. If this union can be explained by the laws of thought, we must ask, what is the word as a thought-thing, or as a product of human thinking, and what are the various classes of words which human thinking evolves and constructs? next, how is it that these words, thus thought into a separate existence, can be thought into a united existence, in the various kinds of sentences or parts of sentences?

We begin our investigations in the way of analysis. We take for our experiment, one of the simplest combinations possible, e. g. '*man breathes.*' It needs no argument to show that such a combination is one of the simplest conceivable. It is equally plain that such a combination must be made first of all; that it serves

as a nucleus around which the most complicated sentence may crystallize, but without which a simple sentence cannot exist.

We have, in this example, two terms united by some bond of connection. In what are they alike? In what are they unlike? What brings the two together?

1. In what are they alike? They are alike in being *general* terms. Language, to be a medium of communication at all, must consist of general terms. Its *material*, the elements of its simplest combinations, are and must be these terms. That there may be communication, something must be common, i. e. equally intelligible to the two partners in the acts of giving and receiving. The same individual objects and their names are not necessarily before the two; but different individual objects possess similar characteristics and receive the same general name, and thus become a possession common to many minds.

In acquiring knowledge by the senses or consciousness, we begin with individual objects. In expressing this knowledge to ourselves or others, we begin with general names. We *know* these objects when we give them right names. We *understand* these names when we apply them to the proper individual objects. When we hear another use these names we understand him when, as we follow his words, we apply these names to the objects to which they belong, and in order that we may do this, both we and he must *know* these objects *by their names*.

But these general names, or universals, are not the names of *things*, but of our *notions* of things. Words are *immediately* not the names of beings or of operations, but of our notions of each, and thus *mediately* by means of these notions, the names of individual acts or beings. Those similar characteristics in which the different individuals are alike, are by the act of thought, judgment or notionizing, separated and fixed by a permanent mental product, called a *notion*, a *universal*, or 'general abstract conception,' which is designated in language by a *name*.

Again, these *notions* or *universals* are formed from the *attributes* of individual existences. There is a distinction in every individual entity beyond which we cannot go, and that is the distinction of being and attribute, or matter and force. We can reduce a material existence to the smallest atom in space which the senses can discern; we can conceive it as possessed of the fewest possible attributes; but we cannot make it cease to be a being, or to be possessed of an attribute. The smallest grain of

sand, the tiniest atom that floats in a sunbeam, is an existence with attributes. The fact that it is perceived requires that it should be perceivable, which is itself an attribute. But as a being, each existence is by itself an individual. By its attributes only has it that which is common to others. By its attributes only can it be generalized or conceived as a notion. Attributes only are regarded in the notions of which general terms are the names. The notions named as *man* and *breathe* are notions of attributes only.

If, then, we renew our question: In what are these terms alike? we answer: they are alike in being general terms, which represent *notions* or *universals*, which are formed from attributes because these only are *common*, *general*, or *universal* to individual existences.

2. In what are they unlike? They are alike in being generalized from attributes, but they are unlike in this, that the mind uses the one notion to represent a being, and the other to represent an attribute. The word *man* is, indeed, the name not of one individual nor of all the individual men collected, but of the notionized attributes, which are common to one and to each; yet the mind uses this notion to express a being only. The word *breathe* it uses simply to express an attribute.

3. What brings the two together? The common answer would be: the one is a verb, and it agrees with its nominative. A better and more comprehensive answer is drawn from the books of logic which distinguish between the predicate and subject, and teach that the predicate is affirmed of the subject. But still the question returns: what is the *subject* and what the *predicate* as distinguished in thought, as *thought-creations*; and why is the one affirmed of the other. To answer these questions still remains our problem. It is not enough to refer to stereotyped phrases about agreement or government, which are well enough when assumed to satisfy children, but cannot be accepted by a man who thinks closely enough to ask why must one word agree with and govern the other. These bonds, if they represent no bonds of thought, are empty names. Nor does it satisfy us to say, as many books of logic do, that the mind compares these terms or notions and pronounces that they agree or disagree, which phrases and explanations are borrowed from the mathematics, and need themselves to be explained. We still ask: How and why is it that the mind unites the two

notions? What is this *uniting* as an act of thinking, and what is the *union* as a *thought-product*? The brief answer to this question is this: Every notion as a thought-thing is related to the individual things to which it belongs. In its very nature it is capable of being united to those things, as the general to the individual, as the attribute to the being. One of these notions represents a being, the other an attribute, and hence in their very nature they are capable of being united together. Nay, they cannot be thought of, apart from each other. They tend to union as directly as the opposite poles of the electric jar. A state of separation is unnatural; a state of union, of combination, is the only state of nature.

Or, in other words, we explain how these two notions are thought together, by asking how the notion itself is thought into being. To the eye of the child, the sun, the fire, the candle are individual objects. But it distinguishes between these beings and their common act, their *shining*. The beings are different; their actings are similar, i. e. in relation to the perceiver, the same. As it regards the individual with the eye or holds it with the hand—this *x* as yet unthought—it abstracts from it, and still affirms of it this quality *shining*. It thinks the object into the notion, and thinks the notion of it. This is a distinct act of thought. The individual is viewed under the general, and the general is affirmed of the individual. Whatever be the name of this act, whether predication or aught else, it is implied whenever a single universal is abstracted from or restored to its individual. Let, then, the mind be furnished with two kinds of notions, one of a being and the other of an attribute, as the notion *diamond* and the notion *combustible*. Let the notion *combustible* be affirmed [i. e. thought as an attribute] of the same individuals of which the diamond was affirmed when first applied to them. The notion *combustible* can now be united with the notion *diamond*, because it can be thought or affirmed of the same beings which the diamond represents.

The mind then unites two notions, by the same process by which it creates a single notion.¹ It affirms combustible of the diamond by the same law by which it affirmed the diamond of the sensible, the unnotioned *x*; or, reversing the process, it thinks the diamond into or under the general combustible, just as it

¹ Cf. Trendelenburg *Logische Untersuchungen*, XII. XIII.

thought the *x* into the general diamond; with this difference only, that, after the original act by which the *x* has been thought as the diamond, this notion is used to designate a class of beings, just as after the diamond and other beings have been thought as a combustible, we again use combustible to mark off all these beings, when we affirm that combustibles require oxygen.

Here we finish for the time our process of analysis, and review the results it has yielded. They are the following. The elementary constituents or monads of language are notions, which are created from individuals by acts of thought. These notions must be united, for the notion itself is originated in union with an individual object of sense (or spirit) and predicated of it. The first act of thinking or notionizing is a proposition, of which *x*, the object of sense, is the subject, and the notion of one of its actings is the predicate. Such a proposition cannot be *expressed* until you have two notions, one of which represents the being before perceived as *x*, and the other the action or attribute united with it and affirmed of it. The proposition then is the original element of language, having its two elements in living and actual union, as the seed has within itself the root which it is ready to strike into the earth, and the stem which it will thrust up into the sky. Words are developed by and from propositions. They come into being as it were ready for union, or rather in union with one another; articulated and so capable of being sundered, and when sundered tending back to a combination. The proposition is the primitive combination, because in thought it exists before the word, and represents the first act of thought by which the individual is taken into the general. It is the *primitive* combination also, because in language no form of union can be conceived which is not grouped around the abstract proposition.

The first of the combinations of syntax has been explained by the laws of thought. The relation by which the parts of this combination are held together, is that of the less to the more general. The act by which the two parts are thought together, is the act by which the less is thought into the more general; or reversing the process, by which the more general is predicated of the less general. Whether the subject be a sensible object, i. e. an unthought *x*; or a particular notionized being, as a diamond, the relation of each to its predicate is substantially the same. But forasmuch as in this primitive combination of language we have to do with notions and not with things, we are concerned only with the

relation of notions to each other, as of the particular to the general. The combination in question is then conceived and defined as the union of a particular with a general; of a less with a more general notion.

Hitherto we have pursued the freer method of analysis, feeling our pathway along in the way of inquiry. We now adopt for a time the severer method of synthesis, and secure our results by the use of precise and technical language.

Assuming that the simplest combination of language is the abstract judgment expressed in words by a proposition, we affirm that the thought-materials of language are "Notions." This term is the equivalent of what the English philosopher calls "a general abstract conception," or a "universal," and which the German designates by the now technical word "*Begriff*." Two notions when united in a judgment constitute a "Thought," "*Gedanke*." A Thought when expressed in language is a "*Sentence*," "*Satz*." But a thought requires two kinds of notions, a notionized being and a notionized action or attribute, the one particular, the other general. The one is the subject, the other the predicate, as commonly understood. The words which designate these notions are "*notional words*," which are the staple of language.

But these "notions" are united in a "thought" by an act of the mind resulting in a product. This act can be distinguished in thought from the notions which it unites. As an act it is the "*referring*," the act of predication or assertion; the result is the union or combination effected between two notions united by a "*relation*." These are expressed in language by "*relational words*," called also, for reasons to be given hereafter, "*form-words*." The verb *to be* furnishes the "*form-word*" for the act of predication when separately expressed. The relation is also indicated by a modification of the predicate. With the act of predicating or thinking, is also given, by a necessary condition of thought, the act of denying, or rather the act of affirming is attempted, "stones are animate;" and it is then destroyed, cancelled or denied, "stones are *not* animate." Thus a second "*relation*" with its "*form-word*" is called into being. Short and simple as the thought may be, it includes the two elements expressed in language by the "*notion-word*" and the "*form-word*," or its equivalent.

This primitive combination is called the "predicative combi-

nation," which is the germ, the *punctum saliens* of language. It expresses the first movement of the mind by which its materials are acquired; by which individuals are thought into universals, and the stock of notions is enlarged. The "Notion" is a contracted "Thought." The "Thought" is an expanded "Notion." The instant that by a decisive experiment the diamond is thought into the class combustible, it becomes a combustible. By a similar movement all existing individuals are generalized, the stock of our notions is augmented, or the fulness of the notions already existing is increased.

We might here dwell upon the fact that the mind must thus think the world of reality into the spiritual world of notions, just as far as it can represent it in language. We might conceive of man as using this language and making these thought-movements, if he were a solitary being and did not require it for the purposes of communication. We might imagine him to look out upon the world of sense, think its objects into new notions by discovering new properties and descrying fresh analogies. In this way his stock of notions would be increased and with it his vocabulary of names; the names of beings and of attributes. Thus would he *know* more and yet more objects. Or reversing the process, he might take the notions at hand, apply them to the objects to which they belong, and thus by a fresh apprehension of things, *understand* more completely his notions and his words. Or he might be surprised to find that the things with which he had long been familiar, might come under attributes to which he had supposed they had no relation, as that the diamond is combustible, or that the electrified matter is magnetic; and thus would be thinking and, if possible, uttering new *thoughts*, even he if he did not record his predicating *thoughts* under a new notion and by a new name.

But language is primarily an agent for communication. If we analyze this process, we find that the recipient must already *understand*, or be made to *understand*, the notions in the mind of the speaker, i. e. must be able to apply them to the individuals to which they belong. We commonly assume that the notions and their representing words are already understood. The office of communication is not to explain words, but to put them to their use. And what is the use to which they are applied except to affirm some attribute of some individual being, or to apply some general notion to an individual thing. But it is rare that

the individual thing is present to the senses of both or either at the time when the information is given. If it were, the informant might point with the finger, or look with the eye at the object and affirm the notion of it. To speak a common name, is to use the name of a notion and not of a thing. Looking upon a group of horses, or upon one horse, we individualize nothing by saying "horse is white." This only can be done by special form-words, such as we shall notice by and by, as *this*, or *that*, or *the* horse. But to this we tend continually by doing the best which we can with the stock of general notions at our command. Each attribute of color, form, height, action, etc. singly is true of a part of the whole group of horses, and when all are united together, they belong to a very small portion of the whole. If we can employ one or all for this purpose, we shall be tending towards that individualization which in communication we seek to secure; the white, handsome, tall, trotting horses will be very few compared with the whole of any group. The white horses are but a part of the whole. But before this attribute can be used to bring the general to the particular, it must first have been predicated of the individuals to which it belongs. By this thought, as by every thought, a notion is affirmed of the beings to which this predicate belongs. If this notion were always designated by a new and special word, as low horse by "pony," we should have no need of any other expedient. But as this is not and cannot be true, we connect the notion already at hand, and the attribute just predicated of a part of it, in a combination which brings the general to the particular. We say "white horse." This combination is "*the attributive combination*," which, as we have seen, is evolved from and conditioned upon the "*predicative combination*."

Should any one fail to see this clearly, he could not fail to be convinced, if he would reflect, that in the act of predication we either thinking the individual or the particular into the general, or *think back* the general to the one or the other. In other words, we *abstract* that we may *restore*, we predicate that we may *know*. In *restoring* or *knowing*, we do in fact apply the attribute in the same process and for the same purposes as when we use "*the attributive combination*," with this difference, that in the first case we employ a permanent word, while in the second we employ two notions instead, the generic and differential, to designate the species which we make for the moment by the act of attributing.

The attributive combination is not a "sentence" but it is a "sentence-combination," made for one moment and resolved the next; and, therefore, a combination capable of being expanded into a sentence, as we shall see hereafter, just as the proposition which is latent in every *notion*, may be expanded into its appropriate form.

As has already been intimated more than once, if we could make a word for every sort or subordinate species, which we designate in language, as often and as fast as these species are divided off by the mind, we should never have occasion to use the attributive combination. Some of the species which we frequently use, do attain a name, as we say *negro* or *black* for *black man*, *white* for *white man*, *the good* for *good men*, etc. If we could always do this, we should pass directly from the act of predicating to the act of *knowing* and of naming. But in those cases in which we need only designate the species occasionally or for the moment, we apply two notions, the one of which brings the other to the particular which we wish, and the object is accomplished.

The notion of an *action* or the *predicate* can also be individualized or made particular, in the same way as a *being* or the *subject* can be brought to a particular or individual. The generic act of breathing may be loud, low, gentle, rough. The act of walking may be made particular or individual, by the *object* in which it terminates. A man may *walk to market* or *to New York*. Whether the means of doing this be developed from the nature of the attribute itself, as in breathing, or furnished from without, makes no difference with the use to which we apply them. As the mind has not single notions at hand for every special, nor individual names for every individual, act, it specializes or individualizes the attribute for the moment, and thus develops what is called the "*objective sentence-combination*." It is called objective, because its purpose is usually effected by attaching an object to the attribute, as we shall explain hereafter. Its essence consists in the thought-movement, by which *the general notion of an activity is made particular or individual*. It is a sentence-combination and not a sentence, but it may be expanded into a sentence, as will be shown in its place.

It will be observed that we are still in the region of abstractions. As yet we have nothing to do with things sensible or things spiritual, with time or space. We are on the "Niphates"

of thin and cold abstractions, and we recognize only the existence of "Notions," "*Begriffe*," and their necessary relations to each other. We must begin with these notions and relations, because language begins here, and we cannot follow its complicated web through warp and woof, unless we separate with microscopic nicety, the finest threads that are employed in its wondrous combinations for use and beauty. The processes by which these notions are formed and used, are comprehended under the German word "*denken*," in a technical signification to which the English "to think" will probably never be limited. The products of this thinking or notionizing power, as "Notions," "*Begriffe*," "Thoughts," "*Gedanken*," etc., as distinguished from the particular subject-matter to which they belong, are called thought-formations, or "*Thought-forms*," "*Denk-formen*." Thus on the basis of the distinction between being and action or attribute, and of the actual gradation of the attributes of existing beings by a greater or less extension, we have the thought-forms of general and particular notions, and the combinations which arise from them.

There is another distinction in nature, the distinction of *cause* and *effect*, on which other *thought-forms* are based. One being by its acting produces a change in the acting or state of another. The one is the cause, the other the effect. To an effect two conditions, at least, are required, the efficient and the occasional cause, or the agent and the material acted on. The effect is dependent on both. Both are referred to, as the *reasons* or grounds for the occurrence or existence of the effect. If all of the conditions are present, the action is conceived or thought as necessary; if a part, it is thought as possible. Whenever the relation of the notion to its ground or reason is recognized, then these modifications necessarily arise. We think the notion not merely in its relation to another notion more or less general than itself, but also as possible or necessary.

We have spoken of the relation of notions to each other, as leading to the three ever-recurring combinations which constitute the staple of language. But though in language we begin on the chilling heights of abstraction, we cannot remain there long if we would, nor would we if we could. Language is made to be applied to concrete and individual realities, and we must provide for such application. The remotest and the broadest relations having been satisfied, we must now provide for others.

The relations of notions to things, is but another phrase for the relations of notion to every possible way in which the human mind apprehends things; for we express in language not what the Creator or angels or clairvoyants know of things, but what man *as man* knows of things. The class of relations for which we are next to provide, are, therefore, the relations to the person who uses language when he wishes to express his views of reality. There are certain universal relations, or categories, or forms, under which every real object is and must be viewed by man. Among these are prominent the forms of time and space, of quantity, intensity, reality, non-reality, possibility, and necessity. The abstract judgment, "man breathes," must occur in some time, if it occur at all, and be modified accordingly; and we must be able to express the relations of present, past, and future, to say nothing of those which are intermediate. We cannot apply it to a real individual without saying 'he breathes now,' 'he did breathe,' or 'he will breathe.' We must know also whether he is *here*, or *there*, *before*, *behind*, etc. Whether the man is *large*, *small*, etc.; whether *one* or *few*, etc.; whether he breathes *faintly* or *violently*, *rapidly* or *slowly*. Above all, we must know whether the union of notions in the proposition expresses a fact or a falsehood; whether it is *real* or *not real*. If we recognize the reason or ground for the occurrence, we must be able to assert whether the event or act is *possible* or *necessary*. These relations are called by Becker in his School grammar, the relations of notions to the speaker; in the Organism, the relations of notions to the *thought* and *intuition-forms* of man. He means by them the relations of notions to individual acts and beings, as we have already shown. These all are provided for in language, as they must be if language is to be used. For if it be natural to procure to ourselves a permanent money of exchangeable material which shall everywhere be current, the next object is so to divide and mark it that its divisions shall have some relation to the necessities of life which every man must buy with his money.

The nature of the relations already considered is one thing, the expression of them in language is another. Thus the combination of notions, in the predicative, attributive, and objective relations, always follows fixed laws and produces the same results. But the agreement of the verb or predicate-adjective with the subject, of the adjective with its noun, and the modification of the predicate by adverbs, cases, nouns with prepositions,

are variously indicated in different languages. Hence the variety of the *grammatical forms* and relations as distinguished from the limited number of logical or *thought-forms* and relations.

The relations of *notions to the speaker*, which we have just considered, are expressed by peculiar and manifold grammatical forms. The relation of the predicate to the speaker, as actually or not in fact united with its subject, is grammatically expressed by the form already adopted for logical predication. Only when the difference is to be noted it is done by emphasizing the copula *is*, etc., or by adding the particles *really* or *actually*, which are ordinarily superfluous. Possibility and necessity are expressed by auxiliaries, adverbs, and terminations. Time-relations are denoted by adverbs and tense-forms; those of space by adverbs; and both, as we shall see, by prepositions. Intensity and frequency by adverbs, prepositions, and terminations. These are some of the grammatical forms to express what are conveniently termed the *modes-relations of the predicate*.

The various relations of the subject notion to the speaker are provided for, also, by appropriate grammatical forms. The subject may be a person or thing; if a person, it may be the speaker, the one whom he addresses, the one of whom he speaks, and of the male or female gender. The number and quantity of the individual object or objects which the subject happens to represent, may be one or more, it may be greater or less. All these relations of the subject notion to the concrete, to which the speaker applies it, have their particular grammatical forms; but the consideration of them is not required at present. These are distinguished for convenience, but do not enter so prominently into the structure of language as the others. In providing for these distinctions, by changes in the form or flexion of words, we further the great end of language, which is to combine general notions so as to describe and identify particular classes of objects and individuals. We add such designations as enable the individual to apply both subject and predicate to the various kind of objects which exist, and to his modes of viewing them. In thus doing, we not merely procure those symbols which are alike applicable to all the objects about which we think and which we perceive, but to particular classes of objects we adapt a special symbol or modified symbol, to stand ready at hand as a "fleet servitor" to designate all that we have occasion to describe.

From the relation of notions to one another and to the speaker,

we naturally proceed to speak of the relation of *thoughts* to other thoughts, and to the speaker. As thoughts are expanded notions, and notions are contracted thoughts, it will not surprise us to find that thoughts are related to each other very much as notions are related to notions. Two thoughts are connected with each other, when taken together they make one thought. The sentence by which this thought is expressed, being made up of two sentences, is a compound sentence. "*I can forgive but I cannot forget.*" "*I can forgive for I can forget.*" "*Though I can forgive I cannot forget.*" Two thoughts are thus united into one, when they stand in the thought-relations of contrast, causality, or adversative reason, as is manifest from the instances which have been just quoted. So also two thoughts can be united into one when they stand in the contrasted, causal or adversative relation, to another thought expressed or understood. "*She could forget, she could forgive, for she was a Christian.*" "*She could forget, she could forgive, though her provocations were great.*" The combinations of two or more thoughts into one are *logical* combinations.

There is another form of the compound sentence which results from the expansion of one or more of its members into a sentence. "*The malignant foe advances.*" "*The foe who is malignant advances.*" The subject may be expanded also. "*My foe fills me with fear.*" "*He who is my foe fills me with fear.*" The object, also, may be expanded. "*I am ashamed of your cowardice.*" "*I am ashamed that you are a coward.*" It is not surprising that each notion can be and is often expanded into a thought, for, as has been often observed, a notion is but a contracted thought. The original nucleus of the sentence still remains. It is not destroyed. It is called the principal sentence. The notions which were its subordinate elements, continue to be so when they are expressed as thoughts. They are called accessory sentences, and their relation is that of subordination to their principal. Their connection is grammatical, not logical, because there is but one thought, though its parts are expanded. There are three forms of these accessories, the attributive, the subjective, and the objective, and they are also classified as adjective, case, and adverbial sentences. The form-words which are provided for the uses of subordination are the relatives and demonstratives.

The relations of thoughts to the speaker are their relations to

the various functions of the human soul. They are first distinguished as thoughts of knowledge and thoughts of desire. The thought of knowledge is a judgment or a question, i. e. a thought which is to be decided by the judgment of the person addressed. Again, the thought of knowledge expresses the speaker's own knowledge of an object or a thought spoken of, as "*I know him.*" "*I know the earth moves.*" And again, the thought spoken of may be the speaker's own thought or the thought of another person. Still again, the thought of the speaker may correspond to an actual reality, or a reality assumed, as "*I had gone had you told me.*" These two last cases lay the foundation for the use of the subjunctive mood, or more strictly for the conjunctive and conditional.

The thought of desire is a wish or command. "*Peace be with you.*" "*Be gone.*" These relations of thought to the knowing and feeling powers of the soul, are the mode-relations of the thought or the mode-relations of predication, and are expressed by the moods of the verb, and by construction, or the arrangement of words.

But we must now enter upon another part of the subject. To do this it is necessary that we leave the height of our abstractions, where thought-relations are woven and unwoven like gossamer threads, and that we descend into the world of sensible realities. It is not sufficient that we show how thought-formations are created, and how they must be modified in order that they may be applied to the actual world, but we must show how they are *represented* to the mind. We have said that the whole world of matter and spirit must first be turned into the thought-world of universals, in order that the means of communication might be provided, which could be offered by one mind and understood by another. We must now show how this spirit-creation of notions must be made sensuous, in order that this communication should not only be possible but actual. It has long been observed by philosophers that the words which denote spiritual objects are to a great extent taken from objects sensible, in order that they be distinctly apprehended. Locke remarks upon this point with great sagacity and reach of thought: "It may also lead us a little towards the original of all our notions and knowledge, if we remark how great a dependence our words have on common sensible ideas; and how those which are made use of to stand for actions and notions quite removed from sense, have

their rise from thence, and from obvious sensible ideas are transferred to more abstruse significations, and made to stand for ideas that come not under the cognizance of our senses; v. g. to *imagine, apprehend, comprehend, adhere, conceive, insist, disgust, disturbance, tranquillity*, etc. are all words taken from the operations of sensible things, and applied to certain modes of thinking. *Spirit*, in its primary signification, is breath; *angel*, a messenger; and I doubt not, but if we could trace them to their sources, we should find, in all languages, the names, which stand for things that fall not under our senses, to have had their first rise from sensible ideas. By which we may give some kind of guess, what kind of notions they were, or whence derived, which filled their minds, who were the first beginners of languages; and how nature, even in the naming of things, unawares suggested to men the originals and principles of all their knowledge; whilst, to give names that might make known to others any operations they felt in themselves, or any other ideas that came not under their senses, they were fain to borrow words from ordinary known ideas of sensation, by that means to make others the more easily to conceive those operations they experimented in themselves which made no outward sensible appearances; and then when they had got known and agreed names to signify those internal operations of their own minds, they were sufficiently furnished to make known by words, all their other ideas; since they could consist of nothing, but either of outward sensible perceptions, or of the inward operations of their minds about them; we having, as has been proved, no ideas at all, but what originally come either from sensible objects without, or what we feel within ourselves, from the inward workings of our own spirit, which we are conscious to ourselves of within." Essay, Book 3, Chap. 1, § 5.

When Locke penned these thoughts, he but half comprehended the meaning of his words, and the wide extent and far reaching application of his principles. Not only is it true that the names taken of the soul itself, as well as of its powers, operations, states, are in fact from sensible objects, but it is also true that all the relations of thought, all the most refined conceptions, all logical combinations and connections, as affirmation, negation, judgment, syllogism, inference, nay, even time and space themselves, nay, even the abstract distinction between thought-formations and perception-formations, are thus named.

Not only are they so named in fact, but they must be so named by necessity. They must be so named because they must be so conceived. They must be so conceived for the purposes of communication, because it is impossible that our conceptions of these unseen and abstract realities and creations can be given to another mind, unless they first be embodied and made palpable to the senses by some analogous object or action discerned in the sensible world. To communication there must be common notions, as we have seen. But of what use is it that there be common notions, unless the parties know that they are common? How can they know that they are common unless a common object is actually present to the mind of both? Is it said that the word sounding upon the ear is this object. But it is not the sound, but the significance of the word that makes it to be an element of language. How is it that this significance of a spiritual or abstract notion can be first connected with the sense striking word? When it is once attached all is clear. But how shall the impalpable be fixed by the consent and the understanding of the speaker and hearer? Words that stand for objects and actions of sense can readily be loaded with an intelligible meaning, for it is easy to point with the finger to the object or motion named, or to imitate by pantomime, when the word is pronounced. But it is not easy to establish a meaning, and to explain a meaning, and to understand a meaning, when it is spiritual and abstract; nay, it is impossible to do so, unless the spiritual and abstract can be brought out into the sensible and material, and clothed with flesh and be grasped by the senses. The mind and all its operations, all the results of these operations, up to the thinnest abstractions, must be incarnated, that the mind which makes them may confront its own works, and point to them with the finger, and call to them the attention of another mind, and attach names to these sense-clothed abstractions. After a beginning has been made, the progress is easy, for one spirit-word can explain and justify another. Let but one thread-like wire be cast across the chasm that separates the world of spirit from the world of sense, and around it can be twisted cables strong enough to bear an army of trooping thoughts. Let but the gossamer that floats upwards in its search for that invisible world which "eye hath not seen," find a point of support, and on it may be woven a ladder by which the angels of God shall descend with revelations of spiritual truth.

The means by which thoughts can become sensuous are obvious. Nature is full of motion. All our notions of spirit are formed by means of the operations of spirit. Though we distinguish between being and act in the world of matter and spirit, yet our notion of a concrete being, whether physical or spiritual, is made from the qualities of the uncharacterized x , of which we predicate its acts, and then contract our one-sided thought into a notion which designates a being. All the operations of material objects are attended with some kind of motion. Every physical existence that acts, either moves or produces motion. Many of the acts of spirit are attended by physical motions, through the connection of the body and the mind. Motion, then, is the universal condition of language. Hence only is it possible that acts in nature should be distinguished, and that these acts should be symbolized. Hence is it, that all words when traced back to their roots, are derived from some kind of motion. Hence all words; words of matter, words for the mind, words notional and words relational, are founded on some sensuous conception of life, on some picture of material activity, either simple or complicated.

This subject has been so beautifully elucidated by Becker in his work entitled: "Das Wort in seiner organischen Verwandlung," that we cannot but give a brief account of the conclusions which he has attained. He shows by an extensive induction from the roots of very many Indo-European languages, as well as by the nature of the case, that their primary meanings may be classed under twelve generic motions. The first class are the following: the motion of living animals, *to walk*, or *to move*; of the light, *to shine*; of sound, *to sound*; of the air, *to blow*; of water, *to flow*; motion from within outward, *to grow*; all these being subjective and supposing no object. As soon as an object is supposed, a second class, the reciprocal motions, arise, *to give* and *to take*; *to unite* and *to part*, first in an intransitive and then in a causative sense; and, last of all, *to impinge*, i. e. *to injure*, and *to cover* or *defend*.

We had intended to show how he explains the laws by which all the possible conceptions of spiritual things are expressed in sensuous forms, but are forced, by the extent of our appropriate theme, to reserve the consideration of this attractive subject for another occasion.

It has long been known that the charm of language consists
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in its picture-suggesting power. It has not been so distinctly and generally known that the sensuous representations of language largely increase the complication of its structure, and must be distinctly considered in the explanation of its syntax. It is because of its relation to a multitude of syntactical forms, that we have introduced it here. The forms of syntax are primarily to be explained by the laws of thought. But though logical processes are the only basis of these forms, they do not fully account for them. The laws of thought are not limited to the laws of thinking by notions, nor to the application of these notions by the speaker. They also embrace the laws of symbolization or of sensuous representation. They respect that process by which this world of abstract creations is incarnated, that it may be easily transferred from mind to mind. If notions are the money of language, and this money must be divided into exchangeable coin, according to the external uses to which it is to be turned, notions made sensuous are money transmuted from the heavy and cumbrous iron into the light and shining gold, as it falls from the hand of the coiner.

One most important observation needs here to be made. Every existing thing when notionized is conceived as being and action. But being, as distinguished from its actings, is a predicated action stiffened into a notion. Everything notionized, therefore, whether being or action, is *conceived* as action. But action is symbolized by motion. All motion is conceived to occupy time, and all being to exist in space. Every being, even a thought-being, is thus made sensuous and is also represented as occupying space. Every action is represented as in time. Substance and attribute; cause and effect are both expressed in language taken from space and time. The substance *supports* the attribute. The attribute *inheres* in the substance. The effect *proceeds* or issues forth from the cause. The cause is *before* the effect in time. These ghostly and spectral thought-forms, which would vanish into the air at the first glimmer of dawn that betokens the world of actual life, must submit to the ungrateful law that compels them to assume a fixed dwelling place in space, and to step by the beat of advancing time. Nay, even time and space must yield to the same inexorable necessity. Time, the Proteus of the metaphysician, is caught at last and compelled to represent herself in unchanging forms under the conditions of space; while time and space are both notionized into intelligible

time and intelligible or definable space, by the postulate of motion, and thus the subject-matter of the mathematician is furnished to his hand. The point, the line, the surface, the cube, the polygon, the circle, are but the constructions, which are notionized by motion as their condition, and predicated of actual space, and thus the half logical and half real science of geometry is made possible.

To some this may seem fancy, to others but darkness visible, but language shows it to be fact. For while language clearly recognizes the reality of predication and of causation, and of the notions founded upon these distinctions as distinguished from their application to the concrete, and their representation in space and time; it also as clearly shows that they are represented in space and time, and cannot be expressed in any other way. If metaphysicians had been always aware of the difference between the reality of a distinction and the mode in which it is represented in language, between the laws of thought and the laws of representation in order to expression, they might have puzzled themselves and their readers less than they have done.

But we have dwelt long enough upon the laws of sensuous representation. And yet the just and clear understanding of these laws is an absolute necessity to the explanation of the forms of syntax.

We now proceed to show more particularly the application of this principle, and of the other fundamental principles, to the combinations of language. All these combinations, as we have already explained, are reduced to three; the predicative, the attributive, and the objective. Of these, the predicative is the original; from this the others are derived. It would be natural to begin with the predicative, but, for what seem to us satisfactory reasons, we begin with the objective.

The objective combination is the result of the effort of the mind in the act of communication to bring the predicate, which is general in its nature, down to the particular or the individual. It is not usually sufficient for the speaker to say "*men breathe,*" but he wishes to specify how they breathe. So, too, it is not enough to say "*the farmer goes,*" but it is added "*he goes to market,*" and this even does not suffice, but we add the individual place, "*he goes to New York.*" The problem is to make to the predicate, which standing alone is only general, such additions as will render it more particular, and, if possible, may set it forth

as an individual instance of this kind or species of activity. Inasmuch as this is accomplished most effectually by representing it as *directed* towards some *object* in space, the union of the predicate with these additions is called the objective combination. As every predicate must be sensuously represented as having motion, and, therefore, as capable of a direction, the element of direction comes to be largely influential. Inasmuch as this combination is generally made for the moment, to secure the temporary end of the speaker, the object is usually separable from the predicate. There are cases, however, in which a class of objects is permanently united to the predicate, and the union is represented by a word, e. g. *animum adverto, animadverto; to catch fish, to fish, and even to catch trout, to trout.*

It is obvious that the union of a predicate with an object, so as to make the predicate specific, is a logical combination, and does not require a reference to space or time. It is as clear that no general activity can be made individual except as it is connected with an individual existence, occupying some individual portion of space at some instant of time. The various forms of objective combination, then, cannot be explained without a reference to the laws of sensuous representation. Whether the act be literally an act in space, as "*he runs after the horse,*" "*he flees from the robber;*" or clearly metaphorical, as "*he runs after vain expectations,*" or "*he flees from pursuing thoughts;*" or less clearly metaphorical, as "*he longs after forbidden joys,*" or "*he trembles from fear,*" the forms of expression and the relations which they express can only be understood by referring to the necessity of talking of every object as represented to the senses in space.

The relations of space do not necessarily individualize an activity, though without such relations individualization is impossible. Place and direction are these relations. Place, strictly speaking, individualizes, direction does not, till the object to or from which the direction is asserted, is made individual. "*He stands here,*" is an individualized action. "*He goes towards,*" is not individualized till you add the object and fix its place.

Thus far we have distinguished two kinds of objects, those which make the general particular and those which individualize the general.

Those which bring the general down to the specific are again subdivided into two subordinate divisions, the completing objects and the objects of manner. The first is required whenever the

predicate notion expresses the direction of an activity to a being so far undefined that one of its species may be enumerated, and is expected. The predicate *strikes*, from its very nature, informs us that some body or some thing is struck, and we wait till the particular is given. The statement of that completes or supplies the deficiency. That which completes an expression, which from its very nature is indefinite and incomplete, is called *the completing object*.

It is manifest that the completing objects only pertain to that class of predicates, whether verbs or adjectives, which are in their very nature objective. If we refer to the cardinal notions, to which all our notions of activity are referred, we find that the following, to *walk*, to *sound*, to *shine*, to *blow*, to *flow*, and to *grow*, are subjective. On the other hand, to *give* and *take*, to *infuse* and *defend*, to *part* and *unite*, do in their very signification suppose another being besides the subject of the action. Every action is represented as a motion in space. Every action upon an object is represented by some direction in space. Hence the name *object*, as of some being set over against the acting being, to which we say, without being conscious of the pregnant signification expressed by the very word, its actings are *directed*.

Besides the completing objects, which render a general activity more particular by the addition of beings from without, there are specifications of manner which arise from the possible varieties of which the action is capable, and are, therefore, developed from within. Every general activity, whether subjective or objective, is capable of certain variations, and thus specifications by manner are common to all. They are called objective combinations, not with entire propriety, as when we say "he breathes *gently*," which would seem to be more akin to an attributive combination. Inasmuch, however, as these combinations may be always and often are, expressed by means of an object to which the activity has a special relation, they admit the designation *objective*.

We have stated, in general, that completing objects and objects of manner, perform the office of bringing a general activity to a particular; sometimes, also, they individualize the activity. In its nature, the objective action requires only an object of species to complete the notion, as when we say "*he gives*," and we inquire "*to whom?*" the answer "*to the poor*" satisfies us, though the individual, "*to John*" or "*to this man*," satisfies us more per-

fectly. So also is it with the object of manner, "*he breathes*" "*gently*," or "*he sleeps*" "*like this child*."

The combinations which in their very nature *individualize* the action are those of space and time. Every individual is known to occupy a portion of space and to exist at an instant of time. Every act that is connected with an individual thus designated is itself individualized. We have just seen that a completing object and an object of manner, which in their nature are specific, can become individual only by adding these relations of time and space. Time and space relations are not exclusively individual. There are general directions in space, as *above and below*; relations of space, as *in the air*; of time, as *by night* and *by day*,—which particularize without individualizing the act. Generally, however, they individualize. No act can be individualized without them. It is scarcely necessary to repeat, that relations of time are represented only as relations in space, so that space relations are those only by which an act is represented in language as individual.

Thus far have we considered the general division of objects. It has given us completing objects, and non-completing objects, viz. those of manner, space, and time. We name next the leading subdivisions under each. Of the completing objects, there are the following: The verb or adjective may express an action which in its very nature is spatial, as *to send*, *to place*. Actions of this kind obviously suppose a direction to or from an object in space, and the notion is completed only when the direction and the object are both supplied, as "*he places the book on the table*."

The activity may not be spatial, but being represented as spatial, the subject acts upon, or is acted upon by the object. If it acts upon the object, the action is represented as moving in the direction from the subject towards the object. If it is acted upon, the action proceeds from the object towards the subject. If the subject and object act upon each other, the action proceeds from each, towards the other. That all these modes of acting are supposable is evident. If the subject is a person and the object is a thing or is conceived as a thing, then the action is in the direction towards the object. If the subject is conceived as the recipient, and is acted upon, the action is in the direction from the object. If both object and subject are persons, or are conceived as persons, then the action is in a direction *from each* and towards the other.

Many actions do not, from their own nature, require a completing object, but in the connection in which they are used do require an object to complete, not the notion expressed by the verb or adjective but the notion in the mind of the speaker, as he is rich *in faith*, Washington was afraid *before God*. This is called the conditioned completion.

The non-completing objects are objects of manner, causality, space, and time. We speak first of objects of manner. Manner, as we have already seen, is the designation of a specific difference, developed from within, which is provided for by the nature of the action itself. The simplest form of expressing it is by adding the differential in the form of an adverb, as he *breathes gently*, which is to the action or predicate-notion what the adjective is to the being or subject-notion. Often it is expressed by a relation to some object superadded in the form of a preposition before an abstract noun. Sometimes, instead of an abstract noun, an individual concrete is made use of to bring the genus down to a species, as *to write with the pen*, *to whip with the knout* = *to knout*, a species of whipping. In such a case the individual object is an instrument.

Objects of time and space serve the purpose of bringing the activity down to an individual. An individual is distinguished from all others of its kind by its relations to space or time, or both. The space and time relations are designated preëminently as relations of space and time with respect to the speaker. The space relations to the speaker are presented under contrasts or distinctions of nearness and remoteness, as *here* and *there*; or contrasts of dimension, as *above* and *below*, *before* and *behind*. The time relations to the speaker are given under the contrasts of the *past* and *future* to the *present*; the space-combination is also determined by the relation of the activity to another being in space, as *he sings in the church*; and the time-combination by the relation of the activity to another activity, which activity may be represented as a being, as *he danced at the wedding*. In such cases the space and time combinations individualize the activity, as they express its relations to an individual being or an individual action. Often place and time relations are relations of species, as *she goes out nights*, and *swallows live in barns*. Sometimes in this way designations of place and time become designations of an attributive character, as *night walker*, *barn swallow*, *Election cake*, *Christmas pie*. This only happens when

a difference in the kind of being is implied by the place or time of the action from which it is derived.

The objective combination of causality, deserves distinct consideration. The distinction of cause and effect is properly a contrast of "*thoughts*," not a contrast of "*notions*." *He died of poison*, is properly expressed by the two sentences: *he took poison and therefore died*, etc. The notion of the objective combination is of a combination which reduces the generic notion of activity to one that is specific. It is not always true that the activity induced by one cause is different in its species from one induced by another, as when it is said *he blushed from shame*, it might be said that blushing from shame is not very unlike blushing from anger. It is very often true that there is a difference. So is it generally conceived. So is it freely represented in language. And hence causality, properly a relation of thought, is represented as a relation of notions. Inasmuch, also, as the cause designates a peculiar species of the activity which it effects, it is counted as an objective combination of manner. As manner, when it is individualized by an object, gives us the object of the instrument, so an individual object of causality, when causality is represented as manner, gives us the object of *means*. That this is akin to manner is evident from the English "*ways and means*." Causality is also represented simply as time, as *I was well, I took physic and died; he took poison and then died*. Still there is a difference between *post hoc* and *propter hoc*, though the last is often represented by the first, and the first is mistaken for the last. Logical causality or *ground* is never represented as a relation of "*notions*," but only as a relation of "*thoughts*." It is, therefore, never represented as *manner* or *time*.

From this more particular enumeration of the subdivisions of the objective relations, we pass to the expression of them in language. First, we speak of these objects generally. Their forms are these: the case, the noun with a preposition, and the adverb. The adverb we shall see hereafter is reducible to the case. We have, then, only two, the case and the preposition. We ought here to remark that the English student can with difficulty understand the difference between the two. He has in his mother tongue as it now is, only a poor remnant of cases accidentally preserved, as the dative in "*he gave me or him a book*." The distinction in most languages is sufficiently apparent to give importance to the questions: 'Is this distinction real,

or accidental?' 'Does it express an accidental distinction in phrase or a real distinction in thought?' There can be no doubt that the one form is often interchanged with the other. Notwithstanding this, there is a real difference of signification between the case and the noun with a preposition. The difference is this. The preposition is used to designate spatial relations. It is true that all objects are represented by directions in space, but there is a great difference between those general relations of direction *to* and *from*, which are implied in the representation of every completing object, and the reference of an action to an individual object in space, or one vividly painted as existing in space. The more the spatial and sensuous element is brought forward and made prominent, the more the preposition is used. To the completing object, the case is especially appropriate. The relation of manner as it expresses a species of the activity, is more usually expressed by the case. The time relation, when it expresses the relation of one activity to another activity, may be expressed by the case, but as it more frequently comes out into space and is represented by its forms, it is oftener expressed by the preposition. The causal relation, according as it is more or less a relation of manner or of time, is expressed now by the case and now by the preposition. Generally, as the genius of a language more delights in objects as they are thought or in objects as they are sensuously represented, so do cases or prepositions have the preference.

From this general consideration of the forms of the object, we now proceed to the explanation of the laws which determine the use of each particular case and each particular preposition. And first of the completing object as expressed by cases. The distinctions to be expressed are made by the questions, which does the mind conceive to be the actor, the subject or the object, and from which is the activity represented as proceeding? Originally and naturally the subject notion is viewed as the actor. Man, in his original conceptions of nature, fills it with life and personal existence. Everything of which he affirms action at all, he conceives as an acting person. According to these views, the subject notion is active, the object notion is passive, and the action is conceived as passing from the subject to the object. Hence the transitive relation-form is the simplest and most obvious contrast that is made by the mind and expressed in language. The subject is a person, the object though a person is viewed as

passive, and its appropriate case is the accusative. The direction of the action is *whither* from the subject to the object. But the object may be a thing, and it may so act on a person or be viewed as acting on a person in such a way, that the action of the subject follows. The object is then placed in the genitive. The direction of the action is *whence* from the object to the subject. Accordingly, all those objects which affect the intellectual or emotional nature of man are placed in the genitive. It is here to be observed, that, as man grows older in his conceptions and discoveries, he attributes less power to nature and more power to man. Those actions of thought and feeling which he first viewed as produced at the awful bidding of nature in whose mysterious presence he trembled like a slave, are now regarded as the exercise of his own power over nature, and hence the more frequent use of the accusative, as language advances. If the subject and object are conceived as mutually active and equally free, each saying to the other: 'I am as good as thou and thou art as good as I,' then the object requires the dative. The action is reciprocal and is viewed as *whence* and *whither*, proceeding equally from both subject and object. Hence the dative is eminently the case for personal objects, in all languages which admit a dative at all. It is not, however, confined to persons, but is used for all those objects which are viewed as equal or commensurate to the subject when a comparison is instituted, or the like.

It sometimes, it often happens, that into the notion of the predicated activity is taken the direction of the action conceived as a *cause*, not only to the object, but to *the effect* produced in that object. In every case, when this causative force is added to the proper signification of the action, then a second completing object is required. The action itself, not conceived as causative of an effect, requires an object upon which it terminates, as, *he makes wine*, but when the causative force is added, a new object is required, viz. into *vinegar*. This new object is most frequently conceived as a new *activity, power, property or nature*, evolved from the object by the action. This is the *factive object*, or the object of effect. We do not include under this *the purpose*, because the action cannot be causative of the purpose. It is not necessary that the object be severed from the subject. They may be coincident. Hence subjective verbs admit the factive, as *he becomes a liar; the youth ripens into a man*. Sometimes the

action is followed by a dative of a person, as *it serves him for a pretext*.

The effect set forth in the factitive is ordinarily a *real* effect. Sometimes this effect is the result of the action of the emotional or intellectual powers, or the expression of them, and it is then called *the logical factitive*, as *I think him a liar*. This may be expanded into a sentence-combination, *I think that he is a liar*, or expressed by an accusative with an infinitive, *I think him to be a liar*. A very small number of languages have a special case-form for this fourth completing object. It is variously expressed by a noun with a preposition, a noun in apposition, a subject before an infinitive, and an adjective.

The four forms just considered are the fundamental forms of the completing object. We should expect, therefore, to find four cases in every language, for the expression of these relations. The factitive has rarely a special case. Besides this general exception, it is also true that some languages have more and some even fewer cases than the genitive, dative, and accusative. Why, then, are these called the fundamental cases, each appropriate to one of these three fundamental forms? The answer is brief: wherever these cases are found these relations are appropriate to them, and whenever new cases are added, they only express the relations appropriate to these three.

It not unfrequently happens, however, that one of these cases is substituted for another. There are instances in every language in which it is difficult to see why. In the majority of instances, however, the transfer is readily explained. The accusative and genitive, in respect to the direction of the activity, are opposed. But they are both thing-cases, and, inasmuch as objects in nature were formerly thought of as acting upon man, and are now viewed as acted upon by him, the accusative is substituted for the genitive. The dative and accusative are most opposed, the one being a thing and the other a person case. In the English language, case-forms are almost entirely obliterated, and the sensuous meaning of the verbs, so far as the direction of motion is concerned, is almost lost. Hence the accusative takes the place of the dative. The genitive and the dative express in common the same direction, but the object in the one case is viewed a thing, in the other it is a person. When this distinction of objects passes into the back-ground these cases are easily interchanged.

The factitive is expressed by all the cases; the genitive, dative, and accusative. This is accounted for generally by the fact, that the factitive is considered as a new attribute evolved from the proper object, and, as we shall see that an attribute is often contracted into a mere case-relation, as *a man to my mind, a man from a good family*, etc., so the factitive object may be in any case whatever, according to the view taken by the mind.¹

We cannot pursue this subject into its details. It presents curious and sometimes intricate problems. It is enough to say that the view taken of an object by the mind is capable of a great variety of modifications, and that many forms of expression are contracted, every part of which cannot readily be supplied. So many of them, however, are clearly explicable, that we do not hesitate to accept the principle already announced.

We have also given the difference between the case-form and the noun with a preposition. Whenever the mind is bent upon giving greater life and vividness to the representation, and desiring to make prominent the element of motion in space, the prepositional takes the place of the case-form.

We proceed to consider the expressions appropriated to the *relation of manner*. This, it will be remembered, brings the action of the verb or adjective down to a species, by the distinct development of some distinction implied in its very nature. The word expressing it becomes, therefore, a kind of attribute to the verb, performing for the verb what the adjective does for the noun.

But how is it expressed? It is a general law, that if a being is to enter into combination, it must be combined with an action, and the reverse. But the notion in this case is an action-notion; it requires, therefore, for its modifier a being-notion. Manner, therefore, is often expressed by an adjective in the neuter gender, or by the action-notion turned into being. This is an early and a common form of the adverb. Another form is the adjective

¹ We subjoin, from the manuscript of a friend, the following examples of the factitive combinations, taken from various English authors: "The dispute began to wax warm. His countenance grew dark. Sprat was amazed to hear the bells of his own abbey ringing merrily. Each in turn saw his suggestions scornfully rejected. A suit of mourning has transformed a coquette into a prude. A foot that might have danced the greensward into greener circles. If the parliament proved refractory. Remained a mystery. Passed themselves on him for countesses and maids of honor. What you have heard me say is, etc. I gave myself over for lost. Tearing him to pieces."

with a case-termination. There are also adverbial terminations; which seem to be no other than adjective endings. As the attributive of the noun is often expressed by an abstract substantive with a case-termination, so may the attribute of the verb or adjective. As the predicative genitive is used for the one, so for the other. As the case-termination often gives way to the noun with a preposition, so is it when the adverb is to be expressed. Since in English, the prepositional has displaced the case-form almost entirely, adverbial forms of this character are very frequent.

The individualizing or space and time relations, next claim our attention. How are these expressed in language? The space relations are relations to some being in space or to the speaker. The relations to the speaker are first of direction — *from* and *towards*, and their indifference; and the words which express them are formed from demonstrative pronouns, and so modified that they designate the relations to the speaker, *thither*, *thence*, *there*. To these correspond the interrogatives, *whither*, *whence*, *where*. The *whence* forms are more common than the *whither* and *where* forms, as it is natural for the mind to be so occupied with the object as to make this prominent in expression. In other words, it measures its motion and direction rather from the object to itself, than from itself to the object. *Whither* is often represented by *where*, the mind transporting itself in thought to the place where it desires or dislikes to go, losing sight of the act of progress. On these demonstratives and interrogatives, are formed the indefinites *somewhere*, *somewhither*, etc.

Besides these direction-relations, there are relations of dimension, given by the very nature of space, and natural to every mind, as *above* and *below*, *before* and *behind*, *within* and *without*. To these are added the relations of direction, *from above*, *from below*, etc. Here the same law holds good that we have already noticed, that direction very frequently is preferred to place, because motion is the great element in language, and even rest is represented by motion. Sometimes, as we have seen, the mind is so interested in the place that it overlooks progress and the direction and motion which progress involves. Hence forms and prefixes which originally expressed one direction, wheel about and express exactly the opposite, as the French "*s'approcher de quelque chose*."

We must remember, also, that space-relations are often introduced into language, not to connect the action with an individual

being in space, but simply to give life and sensuous reality to its representations.

The space-relations of the activity to another being, follow the same laws and are expressed by the same variety of forms, which are used to express space-relations to the speaker.

From the relations of space we proceed to those of time. Every thought, and every expression of a thought in a preposition, is represented in space and time; the subject in space, the predicate in time. The relations of the subject in space are designated by the person-forms; of the predicate by one of the three general time-forms, the past, the present, or the future. These time-forms do not, however, individualize the action. But if in the past and future certain more particular designations are fixed upon, as *early*, *late*, *already*, designations of which there is a great number and variety, the action is particularized, it is not left general in the past or future. Relations of this sort are called the time-relations of the action to the speaker.

There are time-relations of another sort, the relations of the predicate to another action, which is itself individualized, as "*when I woke, I leaped from my bed.*" The relative tense-forms, *past* and *future*, are used to designate this relation. But the appropriate way to designate these actions to which the predicate is referred, is by a being, in obedience to the law of contrast already named. These actions are in a multitude of cases represented as beings, e. g. *sunrise*, *dew*, *prayers*, *waking*. The names of the seasons, of the leading divisions of the day, etc., are in many cases thus named. But the action is often lost sight of, and the name has become a simple designation of time.

These time-relations are represented by space-forms. Most of the prepositions, betray their origin from space, *before*, *after*, *about*, etc. The same laws hold good in respect to the use of motion and direction. The whence form is used for the where form, as when we say *de nocte*, *of a Sunday*, *of late*. Hence time as space is represented by cases, according to the direction conceived. Prepositions take the place of cases, when the spatial form is to be painted more clearly to the mind's eye.

There is a combination which, at the first aspect, would seem to express a proper time-relation of the predicate, but which, on a nearer view, is not simply nor chiefly designed to set forth a designation of time. Under the form of an action contemporaneous with or accompanying the predicate, we have really

thought-relations, both the so-called copulative, and also the logical relations of contrast and causation. They are given by this form as notion-relations, as "she walks with head bent low," which is "she walks and bends her head;" "dying I avenge my father's wrong," i. e. "through my death I avenge my father's wrong." "In wrath remember mercy." Sometimes the accompanying activity pertains to the subject of the predicate proper. Sometimes it belongs to another subject, as "he went forward, his heart beating for fear." Then again the accompanying activity is omitted and only its object is retained, "his hand on his sword he walked into the maddened crowd."

This relation is to be distinguished from that of manner in the fact that it does not express a distinction which is developed from the nature of the activity itself, but asserts an activity which is superadded thereto, generally for logical purposes.

This form is exceedingly various and frequent, and the application of it, for rhetorical purposes, is very beautiful. Our limits forbid extended illustrations.

Of the expressions suitable to the relation of causation, we need add but a word. Causation is properly a relation of thoughts, but is represented as a relation of notions. It then takes the objective combination by being conceived as manner and time. Some of the modes by which manner and time are expressed through cases and prepositions, are used to express the object of cause. The means and instrument are expressed by the Latin ablative and the Greek genitive. The preposition *from, out of, after, by means of, in spite of,* often designate the object of causality.

But it is time that we had done with the objective combination. The attributive next requires our attention. The attributive, like the objective, presupposes the predicative. Indeed, the attributive is based upon it. In the predicative, we *think* the particular into the general, and by the same act we *set forth* this particular as a species of the general. *The rose is fragrant,* i. e. the rose is a species of the genus of fragrant things. Having thus set it forth as a species, it is natural for us to go on and divide it again into sub-species; these objects, viz. a certain portion of the whole genus roses are red. By this second act of predication is created the thought-union, *red roses,* which covers the extent of individuals that had previously appeared in the proposition, these objects, viz. certain roses are red. Thus in all

cases the attributive presupposes the predicative. The peculiarity of the relation consists in the fact that beings are made specific by their union with an action or active nature, which had been predicated of them. This reduction of the genus to the species may be for the moment, as when I join red and roses for the moment in a sentence-combination; or it may be permanent, as in the words *sea-water, tea-roses, blush-roses*. Its essence consists in the fact that by it the genus is made a species. There are words, also, which bring the genus down to an individual relation, and take the form of the attributive combination. These are form-words and they denote a relation to an individual, as *my, this, the present, this here, that there*. But they are conceived as notion-words, and they are so, because they can be generally applied. They are not notions of a being or an action, but only the notions of relations of a being.

The forms in which the attributive relation is expressed in language are the attributive adjective, the genitive, the substantive in apposition, and the substantive with a preposition. The last case is thus explained. If this attributive is expanded into the predicative relation, as *the ring of gold*, into *the ring which is made of gold*, an active nature appears, modified by an object. This action is dropped out of expression, and sometimes out of distinct thought, when the predicative is contracted into the attributive. Instead of the form *the ring made of gold*, we have *the ring of gold*. So, also, *the search after gold, the race for power, the march to glory, the plunge into ruin*. Whatever the expression may be, the attributive combination reduces the genus to the species, by means of a predicated action, or to an individual, by a relation predicated like a notion. If the attribute belongs to the whole genus, as *glittering to gold, brittleness to glass*, the attributes are useless, for they do not specify. The *brittle glass*, etc., have their uses for rhetorical purposes, but no grammatical and logical value.

The adjective is the natural form for the attributive. The attributive relation is, as we have seen, founded in the predicative. But the predicative is expressed in two ways, as we shall see; by the verb, or by the predicative adjective and the copula. If we reject the copula because it is not wanted when the thought-combination becomes notional, there remains the predicative adjective to express the attributive relation, as *mulier est loquax, loquax mulier*, if, indeed, *loquax* is not coextensive with

the genus *masculine*. The union of the adjective with its notion, for the attributive, is indicated by the termination of gender. In the German, such terminations do not appear in the predicative adjective.

The attributive genitive is formed from the predicative, in the manner already illustrated, on the ground that the genitive has appeared in the predicative as the object of an action. The action is omitted and the genitive remains, but the real attribute is this omitted action. The nature of this action is not expressed, but determined by the substantives themselves. If the action is not readily determined, it is expressed at length, as *the letter received from my father*, instead of *my father's letter*. If the relation is spatial, or represented as spatial, the noun with a preposition takes the place of the genitive. The relations ordinarily expressed by the attributive genitive are three: that of an actor to the act, as *the sun's revolution*; of the possessor to the thing possessed, as *my father's house*; of personal mutual relationship, as *the people's president*. In all these cases, the action or active nature proceeds from the genitive, in the direction *whence*. Hence the name genitive. In English, it is worthy of notice, that personal substantives only are placed in the genitive, the impersonal requiring a preposition, as *the fruit of the tree*, not *the tree's fruit*. Inasmuch as the genitive has been used so often for the attributive, an abstract noun is often employed instead of the adjective, as *the man of heroism*. The attributive genitive, besides making the genus specific, also indicates the relation to an individual. This is done very often by the use of the definite article. This may be said to be more frequently the office of the genitive.

If an objective combination requires the accusative of the suffering object, that object is expressed by the genitive, when the predicate grows out of the objective; hence arises the *objective genitive*. Because the genitive is so frequently subjective, unless its use as the objective is readily understood, by the nature of the notions united, the relation is expressed by some special form, in the Latin by the *gerundive*, in English by a participial, as "*money for building a house*." In the German the terminations *ung* and *er* express the relation.

The noun in apposition differs from the adjective in that it gives the attribute in the form of a being, and from the attributive in that, the being is neither the subject nor the object of the

action, but is identical or coextensive with the notion to which it belongs. It is a notion referred to individuals. Hence its use in connection with proper names, and with the definite article prefixed. It often expresses a judgment of the speaker, and this form is selected in order to make prominent the logical relation between two thoughts, one of which is thus contracted into a notion, as "*my father, the king, commands it.*" In such a case, a comma always separates the two. In the ordinary use of the noun in apposition, no comma is employed.

Attributive *form-words* individualize a notion. They are derived from acts of predication, but that which is predicated is not an attribute but a relation to a speaker. The most obvious of these relations are those to the speaker as a person. These are given by pronouns usually in the attributive genitive, from whence originate possessive pronouns. Then, relations in space, from whence are demonstrative pronouns. Then numeral form-words. From both the last are derived definite and indefinite articles. In order to give the numerals prominence, in the German the proper subject is put in the genitive and the numeral is made the subject, as "*of brothers there are three.*" The same form occurs in most languages in respect to the attributive, as we say *much of wine*. This is called the partitive genitive, the force of which is to give to the attribute emphasis and prominence.

The predicative combination, though first in the order of thought, is the last to receive our consideration.

The simple sentence, *the wind blows*, expresses an act of thought. To an act of thought predication is necessary. The predicate is the prominent notion before the mind, yet it cannot be thought of without a being. This being need not, however, be notionized, or distinctly conceived. It may be represented by the pronoun *it*, as *it rains*. In some languages, the whole thought is represented by a word, as *pluit*, but that word, though a verb in form, carries a whole sentence in its bosom, and expresses a being, a predicate, and the act of predication. Children express their thoughts by verbs. In fact nouns are derived from verbs, and the verb is the root-word, standing as it does for the act of thought which precedes the separate words or names into which it is broken. When the subject is a distinct notion, the predicate is expressed by the verb. From the verb are developed two constituents, the act of predication and the

action predicated. This last is the proper predicate, and is properly expressed in language by the predicative adjective. But the adjective and copula are more than the exact equivalent of the verb. The adjective is, indeed, an attribute predicated, but the additional fact is also suggested that it is contrasted with another attribute. Hence adjectives are generally developed in pairs, as *rich* and *poor*, etc. The predicate adjective and copula are, however, to all intents and purposes a verb, only a verb developing more perfectly all the relations of the predicate. Hence the copula and auxiliaries receive all the mode and tense forms appropriate to the verb proper, while the predicate proper is a noun, an adjective, a participle, or infinitive.

The predicate, as it is general, must be a notion-word. Form-words are predicated, when they represent or suggest a notion, as *the horse is mine*. The simple copula strives to express itself as a notion-word by availing itself of a space-relation, hence *to stand* is used for to be. The same tendency is seen in circumscripting phrases, as *to give aid*, instead of *to help*. The subject is also often transferred to the predicate, as instead of the *brothers are three*, there are *three brothers*. The reason is, that the predicate is the emphatic word, and everything carried over to it finds itself in "the best society."

We have said all that is necessary of the simple form of the predicate. The complex or modified forms introduce us to a wider and more intricate field of distinctions.

These complex forms are the expressions of two classes of thought-relations, called the mode and tense relations of the predicate, and the mode-relations of predication. These two classes of relations need to be sharply distinguished. The time-relations have been, to a certain extent, explained under the objective combination (pp. 690, 691). The mode-relations of the predicate designate the relations of the predicate *notion* to the speaker. These have also been explained (pp. 679, 680). The modes of predication designate the relation of the *thought* to the speaker. The mode-relations of the predicate are possibility, necessity, actuality, all designated by adverbs, auxiliaries, and the negative particle. The mode-relations of predication are the relations of thoughts to the powers of knowledge and feeling, and are expressed by the so-called mood-forms of the verb, and its time-forms, when these take the place of *the mood*.

The mode of the predicate, is really a relation of the *thought* and not of the *notion*. When we think *the fire burns*, the thought is logically complete. The *thought* when applied to a thing by the speaker may be actual, possible or necessary, and this application or predication may be expressed by another thought, as *the fire burns, I know one or more of the grounds of believing it*. In language, however, this second thought is not recognized, and the relation is conceived as one of notions. And we say, *the fire does or can or must burn*, by modifying the predicate notion.

In the mode of predication, the case is different. The relation is acknowledged to be one of thoughts. When we express a wish or a command, not only the thought, *the fire burns*, is made known, but also the other thought that we express a wish or a command. Both these thoughts are made known by the mode of predicating the thought that is wished or ordered. The thoughts, to be thus indicated, are thoughts of knowledge or thoughts of desire. Thoughts of knowledge are actual judgments of the speaker, or thoughts which are put in question to be decided by the judgment of the person to whom the question is addressed. In other words, they are assertory or interrogatory.

The interrogatory sentences may concern the predicate, when its actuality is put in question, as *Is he gone?* or they may concern the subject or object of the predicate, as the species or individuality of either is put in question, as *what animals eat flesh? who killed Cock Robin? or what or whom does he desire?* In every question a concealed contrast is implied, which is often expressed. *Is he gone or not? Did John or James kill Cock Robin? Do you desire flesh or fish?* In the first case, the contrast is of thoughts; in the two last, it is a contrast of notions.

The question requires the indicative, as the relation is of logical actuality. The arrangement or the tone are either of them expressive of interrogation.

As a contrast lies hid in every question, the question-form is used to make emphatic a contrary assertion.

The assertory sentences of knowledge are not so readily explained. They lie at the basis of the entire theory of the so-called subjunctive mood, and introduce a variety of equivalent forms of expression, for a great variety of thoughts and thought-relations. The English language, as is well known, has only the poor remnant of a subjunctive. To explain its substitutes for this most important functionary, would hardly reward the

study of the subject as it is elucidated by Becker. Nothing, however, need be said to illustrate the importance and the interest of this mood to the student of Latin, Greek, French, or German.

We commence with the consideration of the subject-matter to be expressed, and pass to the means of giving it expression by the mode of predication and its equivalent forms. Every act of knowledge concerns a thought of the speaker, or a thought viewed by the speaker, i. e. in some sense spoken of. The thought thus viewed and spoken of, may be the speaker's own thought or the thought of another, as *I say, men are fools*; or *he says, men are fools*. The speaker's own thoughts are logically actual. These viewed thoughts must be logically possible. The leading sentence is the appropriate grammatical form for the thought of the speaker, as in the examples above, "*I say, he says*;" the accessory, the form for the thought contemplated, as *men are fools* in both. To thoughts logically actual, *the indicative* mode of predication belongs. To thoughts logically possible, *the conjunctive* belongs. The indicative pertains to the leading sentence, and the conjunctive to the accessory.

We have said that in general the conjunctive is the mode for the thought viewed by the speaker, when placed in an accessory sentence. But if the thought thus viewed by the speaker receives the sanction of the speaker's own judgment, if it is asserted as his thought, as well as a thought spoken of by him, then the indicative drives out the conjunctive and takes its place. The conjunctive is in its nature appropriate to any thought spoken of by the speaker, and to any notion expanded into a thought; but just in proportion as the speaker is understood to endorse the thought, the indicative is likely to be substituted even in an accessory.

We have said that the conjunctive is appropriate to the grammatical form of the accessory sentence. Those languages which pay greater respect to the form than to the spirit of a sentence, obstinately retain the conjunctive, even when the accessory expresses logical actuality. Those which follow the spirit and give way to the logical import of the thought admit the indicative more freely.

But still another mode-form claims our attention, viz. the conditional. In thoughts, as they are ordinarily expressed, the predicate is either affirmed or denied of the subject. But affir-

mation and denial exclude one another. But often these two are taken up in one and the same thought, as *should his judges pronounce him guilty, his cause were lost*; the thought actually expressed is, *his cause is not lost*. If the contrary thought were asserted the same way, *his cause is lost, his cause is not lost*, there would be contradiction and nonsense. But they are not thus asserted. The one is affirmed of an actual reality, the other of an assumed or supposed reality. The thought-relation which sets forth one reality by its supposed contrast is a *mode-relation*, and is expressed by a *mode of predication*, which is commonly called *the conditional*. In the Greek, the conditional has a variety of tense-forms, and is called a mode by itself — the *optative*. In Latin, it is expressed by certain special tense-forms of the *conjunctive*. Many contend that it should not be called a mood. But if the mood depends on the logical relation of thoughts, it ought to be regarded as a mood by itself.

The conditional asserts a judgment, like the indicative, viz. *his cause is not lost*. It would seem, therefore, to belong to the indicative and to the leading sentence, certainly not to the conjunctive, which is appropriate to the *logically possible* and not to the *logically actual*. Accessories only have the conditional when the leading sentence has the conditional. All languages have not a special form for the conditional. No more have they for the conjunctive. Yet the English retains the conjunctive *be* and the conditional *were*.

Every thought can be expressed in the conditional as well as in the indicative. But why is it that the mind in all languages seeks this mode of expression? For what end? If it is said, it conditions one actuality on another which is assumed, nothing is said. The question still returns: Why select this round-about form of expression? We answer: By so doing we emphasize a proposition by means of its antithesis, as the same is done by the question.

Most frequently this is done by introducing the *ground* and the causal relation. When we would emphatically say *I shall not go*, we say *were I well I would go*. This contrast is more striking if you assume a ground and say *though I were well I would not go*, i. e. *I certainly shall not go*. This is the *adversative ground* or *reason*. Sometimes we express the same in a wish under the conditional form: "Oh were I never there."

Those who contend that the conditional expresses only time-

forms of the conjunctive give as a reason, that in all languages the conditional is used to express time-forms of the logically possible. But in this case the time-form is not the thing expressed. The conjunctive, as the expression of the logically possible, has no time-form, as is evident from the usage in the German, by which the present is given in the conjunctive, after a past in the leading sentence.

The mode of predication is often expressed by time-relations. Of time-relations there are three original and absolute, the present, the future, and past indefinite; three derived and relative, the definite past, the pluperfect, and the future exactum. Now the mode of the predicate and the mode of predication, can both be expressed by time-forms. The actuality of the predicate and the logical actuality are given by the *present* in time, the possibility and necessity of the predicate and the logical possibility by the *future*, and the contrast which sets forth the actuality spoken of by the speaker, by the *past*. The indicative, as the mode for logical actuality, is represented by the present. The conditional, as the mode for assumed reality, by the past. The conjunctive, as the mode for logical possibility, by the future.

So, too, the relative time-forms hold the same relation to the absolute time-forms which the conjunctive holds to the predicative. They throw the present, the tense-form for actuality, out of view, and thus rather designate the logically possible, as he said *he had rather*, in which is no time-relation, though a past is employed. Hence the imperfect is used to denote repetition, especially in conditional sentences. Add the relation of indefinite repetition and the imperfect denotes the mode of logical possibility. The aorist, perfect definite, and present, express the logical actuality.

For the reason that a relative tense-form throws the actuality into the back-ground, it happens that, when the leading sentence has a relative tense-form, the predicate is viewed as possible, *he had gone, if he had chosen*, in this case real possibility is expressed. The conditional is used to express both the possibility of the predicate and of the predication. *If he had [were], gone all [were] would be well*, i. e. *if he could have gone*.

As the relative time-forms are appropriate to express the possibility of the predicate, when this possibility is to be expressed by the indicative, the conditional is the form for the possibility of the predicate when taken up into the conjunctive. The con-

ditional being the proper form for the assumed reality is thereby the form for possibility, especially for real possibility. It is so because nothing can be assumed by a rational person which is not possibility, and the expression of a mere assumed reality need be nothing more than an assumption of possibility. If the actuality of the predicate is to be asserted in the accessory after relative time-forms in the leading sentence, the perfect is used in the German, and in Latin the conjunctive. But if the actuality is not to be made prominent, so much as the intensity of the predicate, which is the effect of the leading action, then after a perfect the imperfect follows in the German, and the conditional in the Latin. But this is no place to enter into any detail, concerning the special forms, that vary in different languages. It is sufficient if we show that time-forms may often express mood relations, both of the predicate and of predication.

We have now finished the consideration of the simple sentence. Its three constituent sentence-combinations have been explained at length, and the various forms in which they are expressed in language, have been sufficiently detailed. We may congratulate those of our readers who have followed us thus far, that we now emerge from the consideration of abstract word-forms and enter upon the structure of the compound sentence, as it is the exponent of the more obvious relations of thought, and subserves the ordinary uses of language.

We have already explained the essential constituents and varieties of the compound sentence (p. 681). As two notions when united make a sentence or a sentence-combination, so two thoughts united into one thought form the compound sentence. The relations by means of which two thoughts are united into one are two, the relations of *contrast* and *causality*. The combinations which are the result of this union are two, those of co-ordination and subordination. When two independent thoughts are united into one, they are said to be coördinate. When one of the notions belonging to a simple sentence is expanded into a thought, the thought formed by this expansion is subordinated to the other. The sentence expressing the original thought is the leading or principal sentence, the one formed by the expanded notion is the accessory. These distinctions have been sufficiently illustrated. What remains to be said will be given under the two heads of coördination and subordination.

We begin with the coördinate union. The logical relations

by which two thoughts are united into one, are two, contrast and causality. When two thoughts are set forth as one by the speaker, they are understood or reproduced by the hearer as united by one of these relations. Notions are contrasted by the polaric antithesis. By this is meant that as notions, the one is different from the other, and each is suggested by the other as its natural opposite.¹ When this contrast is expressed as a *thought*, we use the denying contrast. *Soft* is polarically opposed to *hard*. Expressing this as a thought we say, *the apple is not soft, it is hard*; or by contraction, *the apple is hard, not soft*. Sometimes this denying contrast is not expressed but understood, *apples are soft, pears are hard*. *But* designates this understood contrast. It also stands for the limiting relation when two thoughts are presented, not simply in the denying contrast which is implied, but when the extent of a notion is limited, as in the example given, *apples are soft, but not all fruits* as might be suggested or inferred; and so we check or limit the inference by adding, *but pears are hard*.

The *adversative* relation differs from those named. It is not founded upon the polaric contrast of notions. It is a contrast of thoughts. Two thoughts, one of which denies the other, cannot be united into one, except as they are viewed in relation to their ground. A thought is stated, but the inference from it is denied. *I am sick, but I shall take a walk*. *I am sick*, is the thought; the inference, *I shall not take a walk*. This is denied. If the inference is necessary, it cannot be denied. The logical ground in such a case must be decisive and complete. The *adversative* and limiting relations are not always easily distinguished.

We have already observed, that two thoughts related as cause and effect, or ground and consequence, are properly expressed by coördination, but with the exception of the logical ground, they can be represented under the relation of notions, by the object, or the objective accessory.

The coördinate sentence is properly bi-membral, consisting of two thoughts related as causal or adversative. One of these thoughts is, however, of greater value than the other, and this value is brought out by placing them in juxta-position. In the simple sentence, we go from the particular to the general, and thus indicate one advance of the intellect. In the compound

¹ More than this may and ought to be said to explain fully the signification of "polaric," but it would lead us into too remote, and, perhaps, too subtle, a digression.

sentence, we advance still higher to the thought-forms of contrast and causality. Hence, only the most highly developed intellects use the period, or any form of subordination. What is commonly called the copulative combination differs from the adversative and the causal. It connects acts and events in space and time, but they are not thereby united, but rather disjointed. *What is the bond of their union? Why are they connected?* They are thus connected as the ground of a logical inference generally inductive, and more or less clearly implied, as *Washington was prudent, and brave, and self-governed, and self-sacrificing*, etc. The inference supplied by the mind is, *therefore he was a very uncommon man*. They explain such an inference by an enumeration of its constituent grounds.

These are the combinations by which two thoughts are coordinated into one. Next we inquire, by what means they are made known. They cannot be expressed by inflections, for these are appropriate to the relation of notions; nor by relational words, for the same reason. It is ordinarily thought that the conjunction is appropriate to this function, and yet it is true that these combinations are often made and understood without the conjunction. Moreover, the number of conjunctions, i. e. of words which connect two thoughts into one, is in all languages exceedingly small. When we look at them more closely, we find that these conjunctions perform this function very imperfectly, and that in all cases they were originally designed for another. As we examine still further, we find that the proper expression of the logical relation of thoughts is the tone. The emphasis does not, indeed, convey to the mind the particular relation in which the two thoughts are united, whether it be the adversative, the causal, or copulative. That is left to be inferred by the nature of the thought, or it is specified by the conjunction. The tone and continuity of the parts of the compound sentence is indicated by the pauses which separate these members, and the doctrine of punctuation is to be explained and understood by a reference to this principle. As a general rule, it is also true that the more prominently the logical relation is emphasized by the tone, or indicated by the punctuation, or inferred from the nature of the thoughts, the more readily the conjunction is dispensed with. It needs also to be added that the tone accomplishes two objects; it may either give prominence to the logical relation of the thoughts, or to the superior logical value of one thought over the

other. When two coördinate sentences have the same subject or predicate, they are often contracted by expressing the common member but once. This occurs not, as is commonly supposed, to avoid an ill-sounding repetition, but simply to signify that the one thought is not superior to the other in logical value, or that the logical relation of the two is not prominent.

To understand the nature and the use of the various classes of conjunctions, it must be observed that conjunctions in themselves do not express the relations of thoughts but the relations of notions. In other words, they were originally adverbs. The relations of notions can be expressed by form-words, because these relations are represented by the relations of space and time, but those of thoughts cannot be thus expressed. All conjunctions are originally pronominal adverbs, as *thence, therefore*; or notion-words which have become adverbial-words, and these, if they express relations of action, are adverbs of time, as *finally*; or if relations of being, are adverbs of space, as *besides*; or they are adverbs of mode, as *nor, notwithstanding*. These adverbs in their appropriate functions indicate the relations, not of the thoughts, but of the predicates of these thoughts. When, therefore, in addition to the merely logical relations of thoughts, it is important to give prominence to the special relations of the predicate, these adverbs perform the service of conjunctions, and become the connectors of coördinate sentences.

Under the copulative combination, for instance, the thoughts are generally of equal logical value. They stand in the same relation to the thought with which they are connected. In such a case the conjunction *and* is employed as in ordinary narration. But if the logical value of the thoughts is to be made prominent, and especially if they are set forth as the logical reason, the conjunction *and* is omitted and longer pauses are introduced, as *you have burnt our towns; destroyed our shipping; desolated our land*. But if neither the logical value of the thoughts to another thought, nor the superior value of one over another, is to be made prominent, but the difference between the thoughts united, then space-relations or time-relations are indicated by conjunctive adverbs, as *there-by, there-upon, there-after*. If the coupled thoughts have an unequal logical value, they are united in contrast in a bimembral sentence, and the thought of greater value is indicated by the tone, *and* being retained, as *he promised me solemnly; and he broke his promise*. The thoughts may be of unequal logical

value, and contrasted by the greater extent of the one above that of the other, and the combination requires *not only — but also*.

If the *contrasted* thoughts are coördinated into one, the logical relation is more manifest. Two thoughts only are thus contrasted. One of these has a greater logical value than the other. The conjunction is often dispensed with. The two thoughts are rarely contracted. For example, the polar opposition of notions is made prominent by being expressed in a denying contrast of thoughts. The affirming thought is always the emphatic thought, and it sometimes takes the conjunction *but*. Sometimes one of the opposed notions is made prominent, sometimes the other, as *he goes not backward but forward, he goes not forward but backward*. If the contrast is not decided, *either — or* are used. This form is contracted, as *give me an apple or a pear*. Sometimes by leaving the way indefinite in which the contrast is to be decided, the necessity itself is made emphatic, as *we must conquer or die*. This form is used to correct an assertion made by another, as *rights are taken not implored*. When the extent of the predicate is limited or a conclusion is denied, *but* is used and the two forms of contrast run together. The adversative is made emphatic by such conjunctions, as *but, on the contrary*. The conjunctions *yet, notwithstanding*, designate the antithesis to an inference.

In causal coördination, it is to be remembered that only the logical ground requires to be expressed by the combination of *thoughts*. The real and moral ground are usually conceived and set forth under the grammatical relation of *notions*. If the ground is set forth as a judgment of the speaker, it is expressed as a thought. Still, even then, the notion-relation is often retained and a pronominal adverb is employed as a conjunction, as *he is quarrelsome, therefore he is avoided; he drinks water, consequently he is healthy*. The logical ground even submits to this form of expression, but it is only as the logical is represented as a real ground, as *backward thou canst not go, therefore must thou advance*. Indeed, the logical is always based upon a real ground, and can take the form of real necessity. As the ground or the conclusion is made prominent, so does either take the appropriate conjunction either *for, because, or therefore, consequently*. And as the ground of inference is absolutely necessary or more or less probable, different conjunctions are provided and used.

The *subordinating combination* has become in some degree

familiar to the reader. It is contrasted with the coördinating, in that the one consists of two thoughts, expressed by two complete sentences, and the other is formed by expanding a member of a sentence already existing, or conceived to exist, into the form of another sentence which is subordinate to the principal. When we speak of the expansion of a notion into a thought, we do not intend that every subordinate sentence has in fact first existed in the form of a notion. It is true, on the other hand, that what in the early languages is expressed by a notion, would in the later be expressed as a thought, so that, so far as the form or structure is concerned, man has advanced from the one to the other. It is also true that, in the later languages, independent thoughts of the speaker are, for grammatical purposes, brought into the subordinate forms. But we have already noticed more than once the fact, that a *notion* is a contracted *thought*, and a *thought* is an expanded *notion*. The substitution of the one for the other is the result of a natural process.

It is manifest that the predicative combination which represents the nucleus of the leading sentence is expanded already, and admits no additional enlargement. The subject, the attribute, and the object can be expanded into subject, attribute, and object sentences. The object, as subdivided into the completing and non-completing, gives us noun or case sentences and adverbial sentences. This division is again resolved into the more general one of substantive and adjective sentences. The first comprehends all those subordinate sentences which represent a substantive, the second all those which represent an adjective.

Out of the tendency to expand the notions which constitute a leading sentence into accessories, has originated that very curious class of appendages to the verb, termed the participials. Under this head, we include the participle, the infinitive, the gerund, and supine. They originate in the following manner: The notion is generally expanded in order to give it prominence, as, instead of *the liar steals*, we say *the man who will lie, will also steal*. Now the substantive and adjective are easily developed into a thought, when they are already expanded by means of the objective combination, as *the liar on principle*, or *the man beloved of his friends*. It is manifest that the noun and adjective here enlarged by the objective combination, represent or imply a previous act of thought, or predication, which may easily be expanded into the form of the accessory, as *the man who lies on*

principle, the man who was beloved of his friends. Since, now, the verb is the proper form of the predicate, and since, in such sentences, the act of predication is of little consequence, all languages have framed special forms by which the predicate developed into the objective combination, is set forth either in the substantive form, as subject or object, or in the adjective form, as an attribute, as *the man lying on principle, to lie on principle, lying on principle, the man beloved of his friends,* beloved being taken as a participle. These forms, so far as they are substituted for the verb, admit after themselves all that variety of objects, which the verb would do in their place. It is obvious that everything is retained that is essential to the verb, for the purposes for which it would be used in the accessory. Predication and the personal relations only are omitted. It is obvious that an accessory fully expanded can be, and often is, interchanged for the participial. We say, indifferently, *musings I thought, and while I mused, I thought; be intent on performing your duties, and be intent on this, that you perform your duties.*

The participials, as they set forth the notion of the verb, in the notion-form of a being or of an action, are either substantives or adjectives. They differ from ordinary substantives and adjectives, not only in taking after them an object, but in several other particulars. They are always thought of with a subject. If the subject is not already expressed in a subject or object of the sentence, it is added in some way, as *I was astonished at his behaving in such a way.* They admit, also, time and mode relations, *I wonder at his having possibly so behaved.* It is remarkable, also, that like many root-verbs the participials do not distinguish very accurately between the *active and passive* signification. *The house is building, the man building the house was killed.* So, too, the adjective and substantive participials are not sharply separated in form, as *a gentleman walking gracefully and walking gracefully is admired.*

Since the signification of the participials consists in setting forth the notion of the verb as a member of a sentence-combination, either in the substantive or adjective form, so their particular forms must depend on the grammatical relations which they designate. The infinitive is the fundamental form of the participial substantive and the participle of the participial adjective. The supine is a case of the infinitive, and the gerund is an adverbial form of the participle. The infinitive and supine

set forth the action-notion in the notion-form of a being. The relations of direction are indicated by the flexion of the word, in Greek by the article, and in English by prepositions. The participle and gerund set forth the notion in the form of an action or active nature, and hence they distinguish, like the verb, time and mode relations. Only the infinitive, in a quoted sentence with an accusative, admits the time-relation. The special uses of the gerund and supine, especially in the modern languages, we have not room to explain.

It might be inferred, perhaps, from what has been said of participials, that they were the exact equivalents for the verb in an accessory sentence, and that just in proportion as a language was rich in participials, it would use more sparingly the expanded accessory. On a nearer view we find that the one is not the exact equivalent of the other, but that the participial is employed to set forth the unity of the entire thought expressed by the principal and the accessory, while the form of the accessory proper is fitted to give prominence and force to the notion of which it is the expansion. This will be seen at once from two forms like these: *I rejoice at seeing you*, and *I rejoice that I see you*. The rhythm of a sentence, too, requires the form of the accessory. Two more accessories, each set forth in the participial form, would be an offence to the ear, as *I rejoice at seeing you living to behold your son enjoying happy days*. The rhythmic effect is sometimes secured by a different arrangement and proper pauses, as *a royal necklace, glittering beautifully, interwoven with the insignia of the garter*.

Accessories sometimes, nay often, take the form of principals, through an imperfect development of the logical faculty, whereby the subordination of the one to the other is not conceived vividly enough to be forcibly set forth. Such is the case with children; with adults and races even, when in the childish state so far as the logical faculty is concerned. In language, as spoken by fully developed men, it also happens that the same thoughts are now presented in the subordinate, now in the coördinate form. Nor is this a matter of accident or caprice. The law by which the selection is determined is this. If the logical value of a notion is to be set forth, then the notion is expanded into a thought, and this thought, instead of taking its place in meek subordination to its principal, assumes the independent attitude of a coördinate sentence. On the other hand, if the logical relation of the

two is to be made prominent, this is accomplished by bringing that which of right might appear as a coördinate sovereignty, down to the form of a subordinate member of the confederation. So too, if the subordinate form is retained, and yet a completing object or a time-relation is to be made prominent, the ordinary position of things is reversed, and the accessory takes the place of the principal, and the principal sinks into the secondary position.

The form-words, by which the connection of subordinate sentences with their principals are indicated, open a field of curious but most satisfactory interest. The relations of the notion to the speaker are indicated by the demonstrative, which appears everywhere in language like the index finger, pointing out each object in its connection with the speaker. Not only is this true, but all the relations of notions to each other, except the predicative, are indicated by this servant of all work, this lively and bustling *teller* of our exchangeable coin. The gender-forms of the demonstrative, indicate the attributive; its cases, the completing object; its adverbial forms, the non-completing object. Not only is this true, but, when the attribute and object, and even the subject, are expanded into an accessory sentence, even thus the demonstrative appears to indicate the relation of the principal to the notion thus expanded. To the demonstrative, in all its relations, stands the interrogative as its counterpart. The interrogative asks *which*, and the demonstrative answers *this* or *that*, and thus the one is set over against the other. The demonstrative points out the relation of the notion or individual to the notion expressed by the predicate of the principal; the interrogative, as its correlate, the notion which is to be referred to the notion thus designated, as *that man lies who steals; he reads that which I love; that does me good which you give me; he trembles at that which God threatens*. The first of these examples is an expanded attributive; the second, a completing objective; the third, an expanded subject; the fourth, a non-completing objective. In all these cases, the demonstrative points out whether it is the subject, attribute, or object of the principal to which the accessory belongs; and the interrogative, that which is to be referred to this subject, attribute or object. How it happens that the interrogative and demonstrative assumes this new and peculiar function, it is not difficult to see. The interrogative, as it puts a question, leaves the mind in doubt; the demonstrative, as

it were, solves the doubt and clears up the difficulty. The boy says in English: *I tell you what, you will catch it*, which is nearly the same as *what I tell you is that you will catch it*. *I tell you [what?] that you will catch it, or you will catch that which I tell you.*

In the same way arise the correlatives *talis, qualis, toties, quoties*, etc. In the German, and in the English somewhat, the interrogative form is dropped and both correlatives are designated by the demonstrative, as *the man that I love*. We scarcely need add, that the grammatical relation which each of these languages holds in the sentence-combination to which it belongs, is indicated by flexion, in those languages which inflect the pronoun. Whenever the relative indicates, by an inflected form, its grammatical relation to the other members of the accessory, we have the most perfect form. Sometimes, often, the accessory expresses a thought, or the abstract notion of an action, yet it stands in a relation to the principal which is not indicated by any grammatical form, as *I declare to you that I am in earnest, that I love you is true*. We then have the sentence-article or the uninflected demonstrative, *ōxi, quod, que, that*, the relations of which are so interesting. The sentence-article is nothing but the demonstrative, as correlate to an interrogative understood, whenever the accessory expresses a thought or an abstract notion of an action. Sometimes a case-sentence presents a quoted question, and to such cases certain form-words are appropriate, as *whether*, etc., which are partly interrogative and partly relative. In the German, the accessory is always thrown into an inverted form.

Having explained the nature of the accessory and its relation to the principal, the forms which it assumes, and the form-words which indicate the mode of its connection, we will give a few examples to illustrate the different purposes for which the accessory is employed. We select first the adjective sentence. "A tree which bears no fruit." "The tree which I pruned yesterday." Both these accessories perform the function of an adjective; the first bring the notion to the species, the second to the individual. "My child who is sick cannot come." This, though an adjective sentence in form, is a thought of the speaker, and is not intended to bring the notion to a species or individual, but to give the reason. So is it with an accessory of the *purpose* or *end*. "He sent his servant who should ask pardon." Adjective sentences are still further distinguished as they specify individ-

uals or species, considered as substantives, or as they respect the nature or character of the species or individuals thus designated, as *the man who lies steals*, and *such as lie steal*.

The case-sentences correspond to the cases of the noun. They express either the concrete notion of a being, or the abstract notion of an action, or a thought which is treated as a notion. *What is good for me is good for another. That we reverence our superiors is right. You say that you are wronged.* Adverbial sentences are of place, time, manner, and intensity, as shown by the effect. *No one could stand where he fell. At the time when I came near he left. He acted as his father did before him. He cried so that his mother heard him.*

The thoughtful reader must have observed the great superiority of this view of the compound sentence over that which is commonly received. The grammarians tell us, in the old way, that sentences are connected together by conjunctions, and relatives, and relative adverbs. They tell us, moreover, the circumstances under which a relative or conjunction is to be used. To some extent they explain the use of that connecting bond by a reference to the character of the clause which is added, and the purposes for which it is employed. In this way, something more than a merely formal and technical interest is given to the analysis of the sentence. But this interest is far greater when the pupil is made to see that the compound sentence is the natural expansion of the parts of the simple sentence, each adding to itself a new sentence or sentence-combination, after precisely the same law by which the original nucleus was evolved. Each subordinate member of the principal, may be contracted in the mind's view, into the case, the adjective or the adverb from which it is conceived to be expanded. Then, again, these simple elements, expressible by a word, may be unfolded into an extended sentence, consisting itself of its own cases, adjectives and adverbs, each of which may again be expanded, till the processes of ramification and sub-ramification have been repeated again and again. As the lofty oak, in which the eye is lost, as it seeks to follow out its wilderness of limbs and boughs, of spray and leaf, is seen to be but a repetition of the radicle and plumule that were naturally evolved from the germinating acorn, and the whole growth is seen to be composed of tree rooted in tree, and another tree planted upon another, so is it with the most complex sentence that is evolved from a single central proposition.

The relative and sentence-article, which connect subordinate sentences with their principal, are seen to arise by a natural law, and to have precisely the same force with similar connectives in the simple sentence. Or, if we consider the compound sentence, not as an expansion of the simple sentence into subordinate members, but as the union of two independent propositions in coördinate bonds, we find that a law of thought still holds them together. These two thoughts are, as it were, united into one thought by the desire of the speaker to set them forth as contrasted or united by the law of causation. But if the one is contrasted with the other, it is to the advantage of the one over the other. It is to set forth the one in more distinct relief, that the contrast is used. One thought is in some sort made dependent on its fellow. So is it when causation is the bond; the ground or the inference, the cause or the effect, the notion or the act, usually the former, is made prominent and emphatic. So is it with the adversative reason. Whenever two coördinate thoughts are thus set forth in sentences so balanced that they can be distinctly separated by lengthened pauses; when also the preponderance of the thought-force of the one can be brought out by greater force of utterance, thus securing a rhythmical effect, we have the proper period. This is the consummation of language. It is so because it crowds into a single and continuous act of utterance all that can be thus communicated; all that the simple sentence can convey with its attribute, its object, and its attribute and object expanded. It also conveys the relations of the notions to each other and to the speaker, and superadds to these the relation of thought to thought, and makes all this known by a fit expression to the ear through the instrumentality of uttered words.

The period is defined by Becker to be a coördinate sentence, of which the two parts are suitably balanced, distinctly separated by pauses, and emphasized according to their logical value. The reader will be surprised to find how few periods occur on the pages of very many good writers. The period is the perfect expression of a thought perfectly developed. As in the development of the plant each added plant is but a repetition of what had appeared before, with the difference that it seems to represent the whole, as the leaf is a miniature tree, and as the flower is but a repetition of the tree and the leaf united, so in the period the glory of the whole sentence is distinctly unfolded, and language is seen in its consummated perfection.

We started in our course by assuming and demonstrating that the simple notion is the monad, or rather the germ, of language. We have stated repeatedly that the notion is but a contracted thought, and the thought is an expanded notion; or, if it is preferred, the word is an abridged sentence, and the sentence is a lengthened word. We may even say that the simple notion is a contracted period. For as a notion in its elementary form requires a something to be notionized and the acting of that something, each of these may be expanded into a thought, and as such contrasted with each other, or viewed the one as the cause of the other. Viewed under either of these relations, these necessary constituents of the notion may be considered as coördinated together into the period. Thus the whole of language, all its elements, their relation to each other and to the speaker, their representation in space and time, may be said to be involved in the notion. The evolution of these elements into distinct reflection, and the expression of them in appropriate forms, constitutes the whole of language. The predicative combination expresses the very process by which notions are formed; the predicative, attributive and objective, the processes by which its constituents are set forth to another mind. No notion can be formed without the recognition of the distinction between a being and its actings. Being cannot be represented except as occupying space. Action is only represented by continuance in time. The notion of a being cannot be used by a speaker, without the apprehension of the distinction between a person and thing, and the relations of number and quantity. The notion of an action cannot be applied, without being affirmed or denied, and without also being viewed as possible or necessary. A distinction is also necessary between the thought as a thought of knowledge or a thought of desire, and in the thought of knowledge between the thought expressing the direct knowledge of the speaker himself and his own view of a thought spoken of, thus laying the foundation for the mood-distinction of the verb. Inasmuch, too, as the being is conceived as the cause of its actings, and is also contrasted with its actings, these relations need only to be developed to give the coördinate combination, and to attain to the highest consummation which is possible to language as the expression of thought-relations.

From this view of language we can derive a just and rational view of the parts of speech. Language, as we have seen, is a

continuous chain, consisting of links which have no meaning except as they are united together. They come into being, not separate atoms which are by some grammatical *hocus pocus* to be agglutinated into a whole, but spring into life as parts of an organism, in a continuous and articulated connection. An unrelated word is as impossible in thought as it is in fact. The expression of its relations is as necessary to the ideal of a word, as it is universal in the words which we use. We might as easily think of a chain made up of separate and entire rings, with no intermediate hooks to unite them, as think of words with no means to express their relations. These relations may form a part of the word, or words which they unite, and be represented by inflections, or they may be broken off from the word and become relational or form-words. In this way, that large class of words in every language have come into being, which serve the purpose of connecting and applying the notion-words. Thus the predicating word or the auxiliary *to be*, has taken a separate form, as also the auxiliaries of possibility and necessity with the corresponding adverbs. Thus do we account for pronouns, substantive and adjective, interrogative and relative; for the adverbs and prepositions of time and space relations; and, indeed, for the entire class of relational words, which, with the notion-words, make up the so-called *parts of speech*, or word-constituents of language.

The laws of emphasis in speech are to be explained by the laws of thought. In every combination, either of notion with notion or of thought with thought, one is of greater value than another. In every expansion of a notion into a thought, some importance is given to it in the mind of the speaker, and is designed to be impressed upon the hearer. These principles explain those general rules which are followed in the ordinary forms of language, and those special arrangements in the expansion as well as in the position of words and sentences by which greater value is secured to that notion or thought which is worth the most in the mind of the speaker. Our limits forbid us to do more than to allude to this subject. It admits of ample confirmation and requires, in order to its full elucidation, the particular application of these principles to all the forms of language which have passed before us in review.

The application of these principles to style is still more interesting. Style is to be judged of by the objects and ends of lan-

guage. These ends are determined chiefly by the nature of the human mind and the laws of its processes. No other principle than this can be fixed upon as the rule by which to judge of style in general, and of different kinds of composition in particular. If our readers would know how various and rich are the applications which may be made of these principles to style and criticism, they have only to study with attention the works of Becker which are devoted to these subjects. They will find in them the soundest, the clearest, the most satisfactory, and the most genial criticism. They will be convinced that the author is not a hair-splitting logician, nor a dreaming speculator, nor a dry and technical grammarian, but that he is in the highest and best sense of the word a critic, who brings to the critical study of language as used by the poet, the orator, and the essayist, the precision of severe science, and the sympathy of warm and appreciating feeling. No better and more satisfactory reward need be proposed to the student who hesitates whether it is worth while to master the technicalities of Becker's philosophical grammar, than the promise that it will enable him fully to comprehend and enjoy his critical works.

One subject only remains for us to discuss, which we shall dispose of in a word. The question will naturally be asked: Can grammar be taught on this system? The question implies the objection, that, though these principles may be philosophically just, yet they cannot be set forth to a learner, especially to a youth, as the basis of his instruction; that they are too abstract in their nature; that they require too great a strain of the reflecting powers, and that the system built upon them is too refined and complicated to be within the reach of any but mature and abstracted intellects. To this we give two answers. First, it is not to be supposed that this entire system can be taught at once in all its refinements and subdivisions. It must be taught, as every other system of grammar is taught, by general and leading principles at the outset. These must be made familiar to the mind, as familiar as household words. When these are established, they can be applied more particularly; the pupil can be carried forward from one degree of refinement to another, till the whole system is mastered in all its applications, when, as the reward of this philosophical analysis of language, the pupil is prepared to rejoice in the application of them to the high and grateful studies of criticism. For a complete vindication of the

system against these objections, we refer to the treatise of Becker himself: "Ueber die Methode des Unterrichts," etc., and to the elementary works which he has prepared for young students in German.

We might give as a second answer to the inquiry, the question in return: What can possibly be more metaphysical and ungrateful than the ordinary system of grammar? How difficult is it for the child to master the principles of grammar as ordinarily taught, which, indeed, scarce deserve the name of principles. Through what weary years of ungrateful toil does the student drag his reluctant course to parsing and analysis, and what has he gained at the end? an insight into the real nature of language, and a constant discipline of the higher functions of philosophic thought? No, but a dexterity scarcely intellectual, in remembering and applying arbitrary rules; a proficiency in mental gymnastics, but little strong and healthy growth, and less mental satisfaction.

We confess a partiality to this system, because it vindicates and requires a thorough study of logic as its philosophical groundwork, and thus developes and strengthens the methodizing powers, so essential to man's dignity and self-reliance. Now-a-days it is somewhat the fashion to depreciate the study of logic, as being a relic of the dark ages. The guardians of an institution in this country, distinguished for its devotion to the mathematical sciences, have dropped the study of logic, because forsooth, in their sapient judgment, the mathematics are a sufficient substitute; logic being, in their view, a kind of addition and subtraction. Better views of logic and of philosophical grammar than those which are commonly received would, we are certain, do much for the more perfect discipline of our educated men.

The view which we have given of the system of Becker is exceedingly incomplete. We have been forced to omit important topics. Our illustrations have been few where they might and ought to have been copious. Portions of the discussion are so condensed and dry, as perhaps to be unintelligible. We hope, however, that our Article may be of service to the public in calling attention to the writings of this very distinguished grammarian, and in aiding the reader in his first efforts to master their principles.