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*** START OF THE PROJECT GUTENBERG EBOOK ON THE EVOLUTION OF LANGUAGE ***

SMITHSONIAN INSTITUTION—BUREAU OF ETHNOLOGY.

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ON THE EVOLUTION OF LANGUAGE,

AS EXHIBITED IN

THE SPECIALIZATION OF THE GRAMMATIC PROCESSES, THE DIFFERENTIATION OF THE PARTS OF SPEECH, AND THE INTEGRATION OF THE SENTENCE; FROM A STUDY OF INDIAN LANGUAGES.

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AS EXHIBITED IN THE SPECIALIZATION OF THE GRAMMATIC PROCESSES, THE DIFFERENTIATION OF THE PARTS OF SPEECH, AND THE INTEGRATION OF THE SENTENCE; FROM A STUDY OF INDIAN LANGUAGES.

By J. W. POWELL.

Possible ideas and thoughts are vast in number. A distinct word for every distinct idea and thought would require a vast vocabulary. The problem in language is to express many ideas and thoughts with comparatively few words.

Again, in the evolution of any language, progress is from a condition where few ideas are expressed by a few words to a higher, where many ideas are expressed by the use of many words; but the number of all possible ideas or thoughts expressed is increased greatly out of proportion with the increase of the number of words.

And still again, in all of those languages which have been most thoroughly studied, and by inference in all languages, it appears that the few original words used in any language remain as the elements for the greater number finally used. In the evolution of a language the introduction of absolutely new material is a comparatively rare phenomenon. The old material is combined and modified in many ways to form the new.

How has the small stock of words found as the basis of a language been thus combined and modified?

The way in which the old materials have been used gives rise to what will here be denominated THE GRAMMATIC PROCESSES.

I.—THE PROCESS BY COMBINATION.

Two or more words may be united to form a new one, or to perform the office of a new one, and four methods or stages of combination may be noted.

a. By juxtaposition, where the two words are placed together and yet remain as distinct words. This method is illustrated in Chinese, where the words in the combination when taken alone seldom give a clue to their meaning when placed together.

b. By compounding, where two words are made into one, in which case the original elements of the new word remain in an unmodified condition, as in *house-top*, *rain-bow*, *tell-tale*.

c. By agglutination, in which case one or more of the elements entering into combination to form the new word is somewhat changed—the elements are fused together. Yet this modification is not so great as to essentially obscure the primitive words, as in *truthful*, where we easily recognize the original words *truth* and *full*; and *holiday*, in which *holy* and *day* are recognized. 4

d. By inflection. Here one or more of the elements entering into the compound has been so changed that it can scarcely be recognized. There is a constant tendency to economy in speech by which words are gradually shortened as they are spoken by generation after generation. In those words which are combinations of others there are certain elements that wear out more rapidly than others. Where some particular word is combined with many other different words the tendency to modify by wear this oft-used element is great. This is more especially the case where the combined word is used in certain categories of combinations, as where particular words are used to denote tense in the verb; thus, *did* may be used in combination with a verb to denote past time until it is worn down to the sound of *d*. The same wear occurs where particular words are used to form cases in nouns, and a variety of illustrations might be given. These categories constitute conjugations and declensions, and for convenience such combinations may be called paradigmatic. Then the oft-repeated elements of paradigmatic combinations are apt to become excessively worn and modified, so that the primitive words or themes to which they are attached seem to be but slightly changed by the addition. Under these circumstances combination is called inflection.

As a morphologic process, no well-defined plane of demarkation between these four methods of combination can be drawn, as one runs into another; but, in general, words may be said to be juxtaposed when two words being placed together the combination performs the function of a new word, while in form the two words remain separate.

Words may be said to be compound when two or more words are combined to form one, no change being made in either. Words maybe said to be agglutinated when the elementary words are changed but slightly, *i.e.*, only to the extent that their original forms are not greatly obscured; and words may be said to be inflected when in the combination the oft-repeated element or formative part has been so changed that its origin is obscured. These inflections are used chiefly in the paradigmatic combinations.

In the preceding statement it has been assumed that there can be recognized, in these combinations of inflection, a theme or root, as it is sometimes called, and a formative element. The formative element is used with a great many different words to define or qualify them; that is, to indicate mode, tense, number, person, gender, etc., of verbs, nouns, and other parts of speech.

When in a language juxtaposition is the chief method of combination, there may also be distinguished two kinds of elements, in some sense corresponding to themes and formative parts. The theme is a word the meaning of which is determined by the formative word placed by it; that is, the theme is a word having many radically different meanings; with which meaning it is to be understood is determined only by the formative word, which thus serves as its label. The ways in which the theme words are thus labeled by the formative word are very curious, but the subject cannot be entered into here. 5

When words are combined by compounding, the formative elements cannot so readily be distinguished from the theme; nor for the purposes under immediate consideration can compounding be well separated from agglutination.

When words are combined by agglutination, theme and formative part usually appear. The formative parts are affixes; and affixes may be divided into three classes, prefixes, suffixes, and infixes. These affixes are often called incorporated particles.

In those Indian languages where combination is chiefly by agglutination, that is, by the use of affixes, *i.e.*, incorporated particles, certain parts of the conjugation of the verb, especially those which denote gender, number, and person, are effected by the use of article pronouns; but in those languages where article pronouns are not found the verbs are inflected to accomplish the same part of their conjugation. Perhaps, when we come more fully to study the formative elements in these more highly inflected languages, we may discover in such elements greatly modified, *i.e.*, worn out, incorporated pronouns.

II.—THE PROCESS BY VOCALIC MUTATION.

Here, in order to form a new word, one or more of the vowels of the old word are changed, as in *man—men*, where an *e* is substituted for *a*; *ran—run*, where *u* is substituted for *a*; *lead—led*, where *e*, with its proper sound, is substituted for *ea* with its proper sound. This method is used to a very limited extent in English. When the history of the words in which it occurs is studied it is discovered to be but an instance of the wearing out of the different elements of combined words; but in the Hebrew this method prevails to a very large extent, and scholars have not yet been able to discover its origin in combination as they have in English. It may or may not have been an original grammatic process, but because of its importance in certain languages it has been found necessary to deal with it as a distinct and original process.

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III.—THE PROCESS BY INTONATION.

In English, new words are not formed by this method, yet words are intoned for certain purposes, chiefly rhetorical. We use the rising intonation (or inflection, as it is usually called) to indicate that a question is asked, and various effects are given to speech by the various intonations of rhetoric. But this process is used in other languages to form new words with which to express new ideas. In Chinese eight distinct intonations are found, by the use of which one word may be made to express eight different ideas, or perhaps it is better to say that eight words may be made of one.

IV.—THE PROCESS BY PLACEMENT.

The place or position of a word may affect its significant use. Thus in English we say *John struck James*. By the position of those words to each other we know that John is the actor, and that James receives the action.

By the grammatic processes language is organized. Organization postulates the differentiation of organs and their combination into integers. The integers of language are sentences, and their organs are the parts of speech. Linguistic organization, then, consists in the differentiation of the parts of speech and the integration of the sentence. For example, let us take the words *John*, *father*, and *love*. *John* is the name of an individual; *love* is the name of a mental action, and *father* the name of a person. We put them together, John loves father, and they express a thought; *John* becomes a noun, and is the subject of the sentence; *love* becomes a verb, and is the predicant; *father* a noun, and is the object; and we now have an organized sentence. A sentence requires parts of speech, and parts of speech are such because they are used as the organic elements of a sentence.

The criteria of rank in languages are, first, grade of organization, *i.e.*, the degree to which the grammatic processes and methods are specialized, and the parts of speech differentiated; second, sematologic content, that is, the body of thought which the language is competent to convey.

The grammatic processes may be used for three purposes:

First, for *derivation*, where a new word to express a new idea is made by combining two or more old words, or by changing the vowel of one word, or by changing the intonation of one word.

Second, for *modification*, a word may be qualified or defined by the processes of combination, vocalic mutation or intonation.

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It should here be noted that the plane between derivation and qualification is not absolute.

Third, for *relation*. When words as signs of ideas are used together to express thought, the relation of the words must be expressed by some means. In English the relation of words is expressed both by placement and combination, *i.e.*, inflection for agreement.

It should here be noted that paradigmatic inflections are used for two distinct purposes, qualification and relation. A word is qualified by inflection when the idea expressed by the inflection pertains to the idea expressed by the word inflected; thus a noun is qualified by inflection when its number and gender are expressed. A word is related by inflection when the office of the word in the sentence is pointed out thereby; thus, nouns are related by case inflections; verbs are related by inflections for gender, number, and person. All inflection for agreement is inflection for relation.

In English, three of the grammatic processes are highly specialized.

Combination is used chiefly for derivation, but to some slight extent for qualification and relation in the paradigmatic categories. But its use in this manner as compared with many other languages has almost disappeared.

Vocalic mutation is used to a very limited extent and only by accident, and can scarcely be said to belong to the English language.

Intonation is used as a grammatic process only to a limited extent—simply to assist in forming the interrogative and imperative modes. Its use here is almost rhetorical; in all other cases it is purely rhetorical.

Placement is largely used in the language, and is highly specialized, performing the office of

exhibiting the relations of words to each other in the sentence; *i.e.*, it is used chiefly for syntactic relation.

Thus one of the four processes does not belong to the English language; the others are highly specialized.

The purposes for which the processes are used are *derivation*, *modification*, and *syntactic relation*.

Derivation is accomplished by combination.

Modification is accomplished by the differentiation of adjectives and adverbs, as words, phrases, and clauses.

Syntactic relation is accomplished by placement. Syntactic relation must not be confounded with the relation expressed by prepositions. Syntactic relation is the relation of the parts of speech to each other as integral parts of a sentence. Prepositions express relations of thought of another order. They relate words to each other as words.

Placement relates words to each other as parts of speech.

In the Indian tongues combination is used for all three purposes, performing the three different functions of derivation, modification, and relation. Placement, also, is used for relation, and for both kinds of relation, syntactic and prepositional.

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With regard, then, to the processes and purposes for which they are used, we find in the Indian languages a low degree of specialization; processes are used for diverse purposes, and purposes are accomplished by diverse processes.

DIFFERENTIATION OF THE PARTS OF SPEECH.

It is next in order to consider to what degree the parts of speech are differentiated in Indian languages, as compared with English.

Indian nouns are extremely connotive, that is, the name does more than simply denote the thing to which it belongs; in denoting the object it also assigns to it some quality or characteristic. Every object has many qualities and characteristics, and by describing but a part of these the true office of the noun is but imperfectly performed. A strictly denotive name expresses no one quality or character, but embraces all qualities and characters.

In *Ute* the name for bear is *he seizes*, or *the hugger*. In this case the verb is used for the noun, and in so doing the Indian names the bear by predicating one of his characteristics. Thus noun and verb are undifferentiated. In *Seneca* the north is *the sun never goes there*, and this sentence may be used as adjective or noun; in such cases noun, adjective, verb, and adverb are found as one vocable or word, and the four parts of speech are undifferentiated. In the *Pavānt* language a school-house is called *pó-kûnt-în-îñ-yí-kān*. The first part of the word, *pó-kûnt*, signifies *sorcery is practiced*, and is the name given by the Indians to any writing, from the fact that when they first learned of writing they supposed it to be a method of practicing sorcery; *în-îñ-yí* is the verb signifying *to count*, and the meaning of the word has been extended so as to signify *to read*; *kān* signifies wigwam, and is derived from the verb *kûri*, *to stay*. Thus the name of the school-house literally signifies *a staying place where sorcery is counted*, or where papers are read. The *Pavānt* in naming a school-house describes the purpose for which it is used. These examples illustrate the general characteristics of Indian nouns; they are excessively connotive; a simply denotive name is rarely found. In general their name-words predicate some attribute of the object named, and thus noun, adjective, and predicant are undifferentiated.

In many Indian languages there is no separate word for *eye*, *hand*, *arm*, or other parts and organs of the body, but the word is found with an incorporated or attached pronoun signifying *my* hand, *my* eye; *your* hand, *your* eye; *his* hand, *his* eye, etc., as the case may be. If the Indian, in naming these parts, refers to his own body, he says *my*; if he refers to the body of the person to whom he is speaking, he says *your*, &c. If an Indian should find a detached foot thrown from the amputating-table of an army field hospital, he would say something like this: I have found somebody *his* foot. The linguistic characteristic is widely spread, though not universal.

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Thus the Indian has no command of a fully differentiated noun expressive of *eye*, *hand*, *arm*, or other parts and organs of the body.

In the pronouns we often have the most difficult part of an Indian language. Pronouns are only to a limited extent independent words.

Among the free pronouns the student must early learn to distinguish between the personal and the demonstrative. The demonstrative pronouns are more commonly used. The Indian is more accustomed to say *this* person or thing, *that* person or thing, than *he*, *she*, or *it*. Among the free personal pronouns the student may find an equivalent of the pronoun *I*, another signifying *I and you*; perhaps another signifying *I and he*, and one signifying *we*, *more than two*, including the speaker and those present; and another including the speaker and persons absent. He will also find personal pronouns in the second and third person, perhaps with singular, dual, and plural forms.

To a large extent the pronouns are incorporated in the verbs as prefixes, infixes, or suffixes. In such cases we will call them article pronouns. These article pronouns point out with great particularity the person, number, and gender, both of subject and object, and sometimes of the

indirect object. When the article pronouns are used the personal pronouns may or may not be used; but it is believed that the personal pronouns will always be found. Article pronouns may not always be found. In those languages which are characterized by them they are used alike when the subject and object nouns are expressed and when they are not. The student may at first find some difficulty with these article pronouns. Singular, dual, and plural forms will be found. Sometimes distinct incorporated particles will be used for subject and object, but often this will not be the case. If the subject only is expressed, one particle may be used; if the object only is expressed, another particle; but if subject and object are expressed an entirely different particle may stand for both.

But it is in the genders of these article pronouns that the greatest difficulty may be found. The student must entirely free his mind of the idea that gender is simply a distinction of sex. In Indian tongues, genders are usually methods of classification primarily into animate and inanimate. The animate may be again divided into male and female, but this is rarely the case. Often by these genders all objects are classified by characteristics found in their attitudes or supposed constitution. Thus we may have the animate and inanimate, one or both, divided into the *standing*, the *sitting*, and the *lying*; or they may be divided into the *watery*, the *mushy*, the *earthy*, the *stony*, the *woody*, and the *fleshy*. The gender of these article pronouns has rarely been worked out in any language. The extent to which these classifications enter into the article pronouns is not well known. The subject requires more thorough study. These incorporated particles are here called *article* pronouns. In the conjugation of the verb they take an important part, and have by some writers been called *transitions*. Besides pointing out with particularity the person, number, and gender or the subject and object, they perform the same offices that are usually performed by those inflections of the verb that occur to make them agree in gender, number, and person with the subject. In those Indian languages where the article pronouns are not found, and the personal pronouns only are used, the verb is usually inflected to agree with the subject or object, or both, in the same particulars.

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The article pronouns as they point out person, number, gender, and case of the subject and object, are not simple particles, but are to a greater or lesser extent compound; their component elements may be broken apart and placed in different parts of the verb. Again, the article pronoun in some languages may have its elements combined into a distinct word in such a manner that it will not be incorporated in the verb, but will be placed immediately before it. For this reason the term *article pronoun* has been chosen rather than *attached pronoun*. The older term, *transition*, was given to them because of their analogy in function to verbal inflections.

Thus the verb of an Indian language contains within itself incorporated article pronouns which point out with great particularity the gender, number, and person of the subject and object. In this manner verb, pronoun, and adjective are combined, and to this extent these parts of speech are undifferentiated.

In some languages the article pronoun constitutes a distinct word, but whether free or incorporated it is a complex tissue of adjectives.

Again, nouns sometimes contain particles within themselves to predicate possession, and to this extent nouns and verbs are undifferentiated.

The verb is relatively of much greater importance in an Indian tongue than in a civilized language. To a large extent the pronoun is incorporated in the verb as explained above, and thus constitutes a part of its conjugation.

Again, adjectives are used as intransitive verbs, as in most Indian languages there is no verb *to be* used as a predicant or copula. Where in English we would say *the man is good*, the Indian would say *that man good*, using the adjective as an intransitive verb, *i.e.*, as a predicant. If he desired to affirm it in the past tense, the intransitive verb *good*, would be inflected, or otherwise modified, to indicate the tense; and so, in like manner, all adjectives when used to predicate can be modified to indicate mode, tense, number, person, &c., as other intransitive verbs.

Adverbs are used as intransitive verbs. In English we may say *he is there*; the Indian would say *that person there* usually preferring the demonstrative to the personal pronoun. The adverb *there* would, therefore, be used as a predicant or intransitive verb, and might be conjugated to denote different modes, tenses, numbers, persons, etc. Verbs will often receive adverbial qualifications by the use of incorporated particles, and, still further, verbs may contain within themselves adverbial limitations without our being able to trace such meanings to any definite particles or parts of the verb.

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Prepositions are intransitive verbs. In English we may say *the hat is on the table*; the Indian would say *that hat on table*; or he might change the order, and say *that hat table on*; but the preposition *on* would be used as an intransitive verb to predicate, and may be conjugated. Prepositions may often be found as particles incorporated in verbs, and, still further, verbs may contain within themselves prepositional meanings without our being able to trace such meanings to any definite particles within the verb. But the verb connotes such ideas that something is needed to complete its meaning, that something being a limiting or qualifying word, phrase, or clause. Prepositions may be prefixed, infix, or suffixed to nouns, *i.e.*, they may be particles incorporated in nouns.

Nouns may be used as intransitive verbs under the circumstances when in English we would use a noun as the complement of a sentence after the verb *to be*.

The verb, therefore, often includes within itself subject, direct object, indirect object, qualifier, and relation-idea. Thus it is that the study of an Indian language is, to a large extent, the study of

its verbs.

Thus adjectives, adverbs, prepositions, and nouns are used as intransitive verbs; and, to such extent, adjectives, adverbs, prepositions, nouns and verbs are undifferentiated.

From the remarks above, it will be seen that Indian verbs often include within themselves meanings which in English are expressed by adverbs and adverbial phrases and clauses. Thus the verb may express within itself direction, manner, instrument, and purpose, one or all, as the verb *to go* may be represented by a word signifying *go home*; another, *go away from home*; another, *go to a place other than home*; another, *go from a place other than home*; one, *go from this place*, with reference to home; one, *to go up*; another, *to go down*; one, *go around*; and, perhaps, there will be a verb *go up hill*; another, *go up a valley*; another, *go up a river*, etc. Then we may have *to go on foot*, *to go on horseback*, *to go in a canoe*; still another, *to go for water*; another *for wood*, etc. Distinct words may be used for all these, or a fewer number used, and these varied by incorporated particles. In like manner, the English verb *to break* may be represented by several words, each of which will indicate the manner of performing the act or the instrument with which it is done. Distinct words may be used, or a common word varied with incorporated particles.

The verb *to strike* may be represented by several words, signifying severally *to strike with the fist*, *to strike with a club*, *to strike with the open hand*, *to strike with a whip*, *to strike with a switch*, to strike with a flat instrument, etc. A common word may be used with incorporated particles or entirely different words used.

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Mode in an Indian tongue is a rather difficult subject. Modes analogous to those of civilized tongues are found, and many conditions and qualifications appear in the verb which in English and other civilized languages appear as adverbs, and adverbial phrases and clauses. No plane of separation can be drawn between such adverbial qualifications and true modes. Thus there may be a form of the verb, which shows that the speaker makes a declaration as certain, *i.e.*, an *indicative* mode; another which shows that the speaker makes a declaration with doubt, *i.e.*, a *dubitative* mode; another that he makes a declaration on hearsay, *i.e.*, a *quotative* mode; another form will be used in making a command, giving an *imperative* mode; another in imploration, *i.e.*, an *implorative* mode; another form to denote permission, *i.e.*, a *permissive* mode; another in negation, *i.e.*, a *negative* mode; another form will be used to indicate that the action is simultaneous with some other action, *i.e.*, a *simulative* mode; another to denote desire or wish that something be done, *i.e.*, a *desiderative* mode; another that the action ought to be done, *i.e.*, an *obligative* mode; another that action is repetitive from time to time, *i.e.*, a *frequentative* mode; another that action is caused, *i.e.*, a *causative* mode, etc.

These forms of the verb, which we are compelled to call modes, are of great number. Usually with each of them a particular modal particle or incorporated adverb will be used; but the particular particle which gives the qualified meaning may not always be discovered; and in one language a different word will be introduced, wherein another the same word will be used with an incorporated particle.

It is stated above that incorporated particles may be used to indicate direction, manner, instrument, and purpose; in fact, any adverbial qualification whatever may be made by an incorporated particle instead of an adverb as a distinct word.

No line of demarkation can be drawn between these adverbial particles and those mentioned above as modal particles. Indeed it seems best to treat all these forms of the verb arising from, incorporated particles as distinct modes. In this sense, then, an Indian language has a multiplicity of modes. It should be further remarked that in many cases these modal or adverbial particles are excessively worn, so that they may appear as additions or changes of simple vowel or consonant sounds. When incorporated particles are thus used, distinct adverbial words, phrases, or clauses may also be employed, and the idea expressed twice.

In an Indian language it is usually found difficult to elaborate a system of tenses in paradigmatic form. Many tenses or time particles are found incorporated in verbs. Some of these time particles are excessively worn, and may appear rather as inflections than as incorporated particles. Usually rather distinct present, past, and future tenses are discovered; often a remote or ancient past, and less often an immediate future. But great specification of time in relation to the present and in relation to other time is usually found.

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It was seen above that adverbial particles cannot be separated from modal particles. In like manner tense particles cannot be separated from adverbial and modal particles.

In an Indian language adverbs are differentiated only to a limited extent. Adverbial qualifications are found in the verb, and thus there are a multiplicity of modes and tenses, and no plane of demarcation can be drawn between mode and tense. From preceding statements it will appear that a verb in an Indian tongue may have incorporated with it a great variety of particles, which can be arranged in three general classes, *i.e.*, pronominal, adverbial, and prepositional.

The pronominal particles we have called article pronouns; they serve to point out a variety of characteristics in the subject, object, and indirect object of the verb. They thus subserve purposes which in English are subserved by differentiated adjectives as distinct parts of speech. They might, therefore, with some propriety, have been called adjective particles, but these elements perform another function; they serve the purpose which is usually called *agreement in language*; that is, they make the verb agree with the subject and object, and thus indicate the syntactic relation between subject, object, and verb. In this sense they might with propriety have been called relation particles, and doubtless this function was in mind when some of the older grammarians called them transitions.

The adverbial particles perform the functions of voice, mode, and tense, together with many other functions that are performed in languages spoken by more highly civilized people by differentiated adverbs, adverbial phrases, and clauses.

The prepositional particles perform the function of indicating a great variety of subordinate relations, like the prepositions used as distinct parts of speech in English.

By the demonstrative function of some of the pronominal particles, they are closely related to adverbial particles, and adverbial particles are closely related to prepositional particles, so that it will be sometimes difficult to say of a particular particle whether it be pronominal or adverbial, and of another particular particle whether it be adverbial or prepositional.

Thus the three classes of particles are not separated by absolute planes of demarkation.

The use of these particles as parts of the verb; the use of nouns, adjectives, adverbs, and prepositions as intransitive verbs; and the direct use of verbs as nouns, adjectives, and adverbs, make the study of an Indian tongue to a large extent the study of its verbs.

To the extent that voice, mode, and tense are accomplished by the use of agglutinated particles or inflections, to that extent adverbs and verbs are undifferentiated.

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To the extent that adverbs are found as incorporated particles in verbs, the two parts of speech are undifferentiated.

To the extent that prepositions are particles incorporated in the verb, prepositions and verbs are undifferentiated.

To the extent that prepositions are affixed to nouns, prepositions and nouns are undifferentiated.

In all these particulars it is seen that the Indian tongues belong to a very low type of organization. Various scholars have called attention to this feature by describing Indian languages as being holophrastic, polysynthetic, or synthetic. The term synthetic is perhaps the best, and may be used as synonymous with undifferentiated.

Indian tongues, therefore, may be said to be highly synthetic in that their parts of speech are imperfectly differentiated.

In these same particulars the English language is highly organized, as the parts of speech are highly differentiated. Yet the difference is one of degree, not of kind.

To the extent in the English language that inflection is used for qualification, as for person, number, and gender of the noun and pronoun, and for mode and tense in the verb, to that extent the parts of speech are undifferentiated. But we have seen that inflection is used for this purpose to a very slight extent.

There is yet in the English language one important differentiation which has been but partially accomplished. Verbs as usually considered are undifferentiated parts of speech; they are nouns and adjectives, one or both, and predicants. The predicant simple is a distinct part of speech. The English language has but one, the verb *to be*, and this is not always a pure predicant, for it sometimes contains within itself an adverbial element when it is conjugated for mode and tense, and a connective element when it is conjugated for agreement. With adjectives and nouns this verb is used as a predicant. In the passive voice also it is thus used, and the participles are nouns or adjectives. In what is sometimes called the progressive form of the active voice nouns and adjectives are differentiated in the participles, and the verb "to be" is used as a predicant. But in what is usually denominated the active voice of the verb, the English language has undifferentiated parts of speech. An examination of the history of the verb *to be* in the English language exhibits the fact that it is coming more and more to be used as the predicant; and what is usually called the common form of the active voice is coming more and more to be limited in its use to special significations.

The real active voice, indicative mode, present tense, first person, singular number, of the verb to eat, is *am eating*. The expression *I eat*, signifies *I am accustomed to eat*. So, if we consider the common form of the active voice throughout its entire conjugation, we discover that many of its forms are limited to special uses.

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Throughout the conjugation of the verb the auxiliaries are predicants, but these auxiliaries, to the extent that they are modified for mode, tense, number, and person, contain adverbial and connective elements.

In like manner many of the lexical elements of the English language contain more than one part of speech: *To ascend* is *to go up*; *to descend* is *to go down*; and *to depart* is *to go from*.

Thus it is seen that the English language is also synthetic in that its parts of speech are not completely differentiated. The English, then, differs in this respect from an Indian language only in degree.

In most Indian tongues no pure predicant has been differentiated, but in some the verb *to be*, or predicant, has been slightly developed, chiefly to affirm, existence in a place.

It will thus be seen that by the criterion of organization Indian tongues are of very low grade.

It need but to be affirmed that by the criterion of sematologic content Indian languages are of a very low grade. Therefore the frequently-expressed opinion that the languages of barbaric peoples have a more highly organized grammatic structure than the languages of civilized peoples has its complete refutation.

It is worthy of remark that all paradigmatic inflection in a civilized tongue is a relic of its barbaric

condition. When the parts of speech are fully differentiated and the process of placement fully specialized, so that the order of words in sentences has its full significance, no useful purpose is subserved by inflection.

Economy in speech is the force by which its development has been accomplished, and it divides itself properly into economy of utterance and economy of thought. Economy of utterance has had to do with the phonic constitution of words; economy of thought has developed the sentence.

All paradigmatic inflection requires unnecessary thought. In the clause *if he was here*, *if* fully expresses the subjunctive condition, and it is quite unnecessary to express it a second time by using another form of the verb *to be*. And so the people who are using the English language are deciding, for the subjunctive form is rapidly becoming obsolete with the long list of paradigmatic forms which have disappeared.

Every time the pronoun *he*, *she*, or *it* is used it is necessary to think of the sex of its antecedent, though in its use there is no reason why sex should be expressed, say, one time in ten thousand. If one pronoun non-expressive of gender were used instead of the three, with three gender adjectives, then in nine thousand nine hundred and ninety-nine cases the speaker would be relieved of the necessity of an unnecessary thought, and in the one case an adjective would fully express it. But when these inflections are greatly multiplied, as they are in the Indian languages, alike with the Greek and Latin, the speaker is compelled in the choice of a word to express his idea to think of a multiplicity of things which have no connection with that which he wishes to express.

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A *Ponka* Indian, in saying that a man killed a rabbit, would have to say the man, he, one, animate, standing, in the nominative case, purposely killed, by shooting an arrow, the rabbit, he, the one, animate, sitting, in the objective case; for the form of a verb to kill would have to be selected, and the verb changes its form by inflection and incorporated particles to denote person, number, and gender as animate or inanimate, and gender as standing, sitting, or lying, and case; and the form of the verb would also express whether the killing was done accidentally or purposely, and whether it was by shooting or by some other process, and, if by shooting, whether by bow and arrow, or with a gun; and the form of the verb would in like manner have to express all of these things relating to the object; that is, the person, number, gender, and case of the object; and from the multiplicity of paradigmatic forms of the verb to kill this particular one would have to be selected. Perhaps one time in a million it would be the purpose to express all of these particulars, and in that case the Indian would have the whole expression in one compact word, but in the nine hundred and ninety-nine thousand nine hundred and ninety-nine cases all of these particulars would have to be thought of in the selection of the form of the verb, when no valuable purpose would be accomplished thereby.

In the development of the English, as well as the French and German, linguistic evolution has not been in vain.

Judged by these criteria, the English stands alone in the highest rank; but as a written language, in the way in which its alphabet is used, the English has but emerged from a barbaric condition.

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