whether he took this verse with the Heavenly Witnesses from a manuscript of the Bible, or added it himself; at any rate, the citation in the Speculum is of no more importance than that in Vigiliius." As the passage was quoted by Vigiliius Thapsensis (cir. 484) and by Fulgentius (507–533), we need not be surprised to find it in a Latin ms. of the sixth century.

ARTICLE VI.

RELATIONS OF THE ARYAN AND SEMITIC LANGUAGES.

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II. — CRITERIA OF RELATIONSHIP.

In passing now from the more critical to the more constructive portion of our Essay, it will be well to throw some light on the nature of the task before us, by exhibiting the more obvious points of contrast between the two families of speech.1 Bringing thus into view the distinguishing features of each idiom, we shall be the more able to propound the conditions of a just investigation, and to establish the true criteria of evidence as to their relations.

In every language, or group of languages, there are three elements, whose peculiarities determine its special character, and help in different degrees towards its classification. These are, its sounds, its structural principles, and the contents of its vocabulary. In the case before us the numerous points of dissimilarity seem at first sight radical and indicative of a diverse origin, while the points of agreement appear accidental and superficial.

As regards the first element, the sounds of the respective languages, great divergence is apparent among the dentals, in which the Semitic family has developed a strong tendency to multiply sibilant and lisping sounds, and a wider differ-

ence still among the gutturals, in which the same family exhibits an astonishing variety of phonetic expression.

On examining the roots and the general structure of the words, we are at once struck by the strange and unique principles that control the Semitic dialects. While in the Aryan family, roots may consist of only a single (vowel) sound, or of one or more consonants accompanying or grouped about a vowel, it is an almost invariable Semitic law, that the roots of nouns and verbs, so far as the analysis of living forms can testify, are based upon three consonantal sounds. As to Semitic words in actual speech, we see exemplified as universally the peculiar principle that the vowels are used to express subordinate, modified, or accessory notions, while the consonants, which form the framework of the word, embody its fundamental idea. Again, this family has only to a small extent the habit or capacity of compounding words, a circumstance which tended to multiply the number of its roots, while the Aryan languages, having developed that principle largely, were enabled to economize their original stock. Further, the more strictly grammatical features of the two idioms appear to be no less radically divergent. Renan characterizes the Semitic grammar as a sort of architectural and geometrical structure, as contrasted with the latitude and flexibility that mark the inflections and syntax of Aryan speech. In the Semitic verb there is a great variety of forms ("species," quasi conjugations) to express modifications of its general notion, which represent chiefly simple subjective conditions, e.g. causative, declarative, desiderative forms; while in its tenses, which are few, the more metaphysical idea of time is vague and indeterminate, and in those dialects which in a more reflective stage in the history of the race, attained to greater precision in expression, could only be definitely indicated by the help of limiting words. In the same way its moods are also few and entirely foreign in typical structure to those of the Aryan languages. With regard to its noun, the original absence of case-infections, and the formal modification before a limiting noun, called the con-
struct state, are among the obvious peculiarities. The objective suffixes of verbs, and the possessive suffixes of nouns, are further important Semitic characteristics.

Within the sphere of the lexicon we are not led, immediately at least, to unmistakable marks of radical affinity. If the stock of roots in the respective vocabularies was originally the same, the scientific evidence of the fact does not lie on the surface.

The leading differences between the two families being thus indicated, the character of the problem to be solved becomes more intelligible. The following mode of procedure in the discussion suggests itself to us as the most natural and serviceable. After a glance at the sounds of the two systems of speech, we shall first take up their grammatical features; because, in general, they are the surest tests of linguistic relationship, and because, in this special case, they are the elements which are most strikingly divergent. After estimating the results of this inquiry, it will be necessary to decide whether any other criteria have a right to be admitted,—whether, on general linguistic principles, we are at liberty to introduce other kinds of evidence, which at present it is becoming the fashion to decry. We shall then have to see whether a presumption of identity of origin may not be raised through the consideration of analogies between the most common and essential elements of speech, such as the pronouns, numerals, and certain terms of ordinary life. We shall then examine the main contents of the vocabularies, and attempt to compare the verbal roots of the two families. This will involve a discussion of the question as to what constitutes the ultimate roots and fixes the limits of the true analysis of actual forms. It will finally be in place to offer a general estimate of the extent and nature of the early relations of the two systems now so divergent.

We must first, however, state in general terms what is expected to be accomplished through the discussion. After the results of the history of the inquiry given in the former Article, it would seem presumptuous and idle for us to hope to
present a comparative system of the two forms of speech. Nor do we even expect to reach the very highest kind of certainty in our conclusions. It is in only one of the great groups of languages that linguistic science has secured rigorous demonstration of principles and practical results in the province of the lexicon as well as in that of the grammar. Outside of the mutually related facts of the members of the Indo-European family, comparison is still more or less tentative, and its achievements are of various degrees of worth. What we hope to do is to show, upon proper linguistic evidence, the extreme probability, perhaps amounting to moral certainty, of the original identity of the two families, and to draw a few inferences as to the range of their primitive common stock of ideas. The discussion is also intended to be a practical protest against the theories of those, who in a most unscientific spirit, wish to discourage, upon professedly scientific principles, any effort towards the assimilation of the two systems, because no attempt is likely to result in the construction of a comparative grammar worthy to stand by the side of Bopp’s monumental work.

First, then, we shall make a few observations upon the sounds that form the elements of Semitic and Aryan words. It is not customary with those who maintain the radical separation of the two families to lay much stress upon the striking difference in the contents of their respective alphabets. As a general principle, to do so would be to appeal to an unsound canon of comparison. The influence of climate, food, mode of life, and other external conditions, upon the organs of speech, even among communities which are distinguished only by dialectical differences, is extensive and familiar; and it may very readily be believed that through the course of ages, and after long separation under different skies, each of the branches of an originally identical language might naturally have developed certain sounds quite unknown to the phonology of the other. It has lately been urged, however,

1 The Semitic dialects form, of course, a well-established family; but no comparative system of its dialects has yet been produced.
RELATIONS OF THE ARYAN AND SEMITIC LANGUAGES. [April, by a prominent linguistic scholar of England,¹ that a phono­
logical comparison excludes the supposition of Semitic and Aryan relationship. It may be well therefore to examine this question briefly.

It may be first remarked that if this criterion were to be accepted it would preclude all attempts at comparison outside of the families of language already established. And what would have been the result if the founders of our science had early come to the conclusion that, because Sanskrit possessed a class of sounds (the so-called cerebral, or cacuminal linguals²) altogether different from any employed by the languages of Europe, it would be useless to endeavor to establish any sort of relationship between those idioms?

The sounds which are regarded as the peculiar property of the Semites, and are thought worthy to discourage attempts at a comparison of the languages, are the gutturals. Doubtless these are characteristically Semitic; and yet there are to be found in some foreign languages, especially in Armenian, sounds similar to r and z, the most anomalous of the class.³ When, however, we analyze physiologically these sounds and their mutual relations,⁴ it appears that the transition from the ordinary simple guttural breaths is much less violent than might be supposed, while in the Aryan languages also there are guttural sounds which throw light upon their various gradations. Moreover, these breaths are so easily modified, that, as the history of each of the Semitic dialects

¹ A. H. Sayce, Principles of Comparative Philology, 1874, p. 101 f.
² It has been conjectured that these sounds were borrowed from the Dravidian group of languages, namely, those spoken in Southern India by the descendants of the early inhabitants of the peninsula, who were dispossessed by the Aryan invaders. The occurrence of the peculiar aspirated letters in Sanskrit might have been adduced with as good reason against the theory of a common Indo-European speech. The Celtic dialects, also, possess sounds unheard among the other languages of the family.
shows, they may be gradually changed so as to become quite different from their original character. Being all based upon the cardinal breathings represented by \( \kappa \) and \( \eta \), we find that after a course of development, varying in the several dialects, they relapsed in many cases into their original sounds, and were heard no more in current speech. Such was the case in Ethiopian,\(^1\) which in its later history possessed only the ordinary smooth and rough breathings; while in the Assyrian, the Samaritan, the Galilean, and the Talmudic dialect,\(^2\) to a certain extent the ancient Phenician, and to a greater degree the later Punic,\(^3\) \( \kappa \) assumed the place of \( \eta \), and the gutturals generally were more or less confounded. The Mandaite dialect of the Aramaean, also, has gone as far as the Ethiopic, and in some cases even farther.\(^4\) Such facility in development and degeneration in this class of sounds ought surely to preclude the notion that they are an essential and original dividing mark between the two families.\(^5\)

\(^1\) For the gradual steps in these changes, see Dillmann, Aethiop. Gramm., p. 38.

\(^2\) See Fürst, Lehrgebäude der aramäischen Idiome, pp. 15-17.

\(^3\) Renan, Hist. générale, p. 193 f.

\(^4\) See especially in the recent important work of Theodor Nöldeke, Mandäische Grammatik, Halle, 1875, p. 57 ff., where will be found a full exhibition of these changes within the Aramaean sphere. The Mandaite (not "Mendaite," Nöldeke, p. xx.), affords the best field for the study of Semitic sounds in their degeneration, probably on account of the influence exerted upon it, as upon the dialects of Babylonia generally, by the many foreign tribes that have always been found in that neighborhood. On the other hand, the Arabic best exhibits their possibilities of development, as it was at liberty to grow unchecked by any contact with the outside world of speech.

\(^5\) Mr. Sayce also claims (i.c.) that "\( qu \) is an essentially Aryan sound, unknown to the pure and unadulterated Semite," and thus makes the apparently inconsistent statement that the Ethiopic seems to have borrowed the sound from its African neighbors. If this latter statement were tenable it might be urged consistently in favor of an affinity between the North African and Aryan languages,—a theory which Mr. Sayce would be the last to accept. But as \( qu \) is not a simple sound, we can remove the second semivowel element, and the first constituent is seen to be a sound common to Aryans and Semites, being merely \( k \) modified into a deeper palatal by the influence of the accompanying \( \kappa \), thus being intermediate between \( k \) (\( \mathfrak{p} \)) and \( \mathfrak{p} \). The sound ought, therefore, rather to be cited as in illustration of the way in which \( \mathfrak{p} \) is developed—an essentially Semitic sound. It might as well be claimed that \( qu \) (which has also
We must now turn to the structural peculiarities of the two systems of speech. Here we shall have to regard the languages just as they appear in actual use, and inquire whether anything can be inferred as to their early condition. In other words, we must, by analyzing and comparing the verbal and syntactical forms, endeavor to reduce them to common primordial principles. In our previous Article we had hinted at the general value of grammatical comparison in this field of inquiry; but here it will be necessary to consider the question more at large.

The conditions for this investigation are both favorable and unfavorable. On the one hand we find the two groups based upon fully-developed inflectional systems. There is also abundant material, in the form of a large literature in both idioms, bequeathed to us by a long line of intellectual ancestors. Moreover, the internal laws of each of these types of human expression are sufficiently intelligible; for the principles of Aryan speech have furnished the more familiar elements of Comparative Philology, and the Semitic dialects, in their simple and regular structure, reveal easily the process through which their vocables are built up. But, on the other hand, we have this disadvantage, that we do not possess in either idiom literary remains that throw any direct light upon its primitive form. Go back as far as we may, we meet with only full-grown words, in whose complex sounds we seem to hear no more than a faint echo of the simple language of the world's childhood.

Taking up now the word and the sentence as the two main elements of human speech, and regarding the structure of both as the surest distinguishing features of a language or linguistic group, the inquiry naturally divides itself into two branches. First, as to the word, we may assume its special character to be exhibited in its typical form, as this is associated with the process of its development from the

an Ethiopic analogue) in the Latin *lingua* is an essentially Aryan sound. From the facts collected by Dillmann, *Aethiop. Gramm.* pp. 41-43, it may be inferred that these and the kindred sounds in Ethiopic are not due to foreign influence, but were developed from capacities inherent in the language itself.
root. In this way, e.g. we may contrast the structure of *dictum* from *dic* with that of *בֹּל* from *בָּל*, or *dicens*, *dicentes* with *בֹּל*, *בֹּלָל*; noting such matters as the part played by the vowels in each set of words, as related to the function of the consonants, and the significance of the prefix or affix as entering into the inflectional system of each type of language. Secondly, we have to compare features of syntax; the Semitic sentence is placed side by side with the Aryan, and the endeavor should be to determine whether the existing forms can be reduced to a common system of expression.

Now, it must be acknowledged that hitherto such inquiries as these, conducted, as they have been in some cases, most acutely and profoundly, have had but ill success so far as their main object is concerned. The result, at best, has merely added to other presumptions in favor of an organic relationship, through the exhibition of a few analogies in the more fundamental structural principles of the word and sentence, which have, however, arrayed against them numerous divergences, apparently no less radical and essential. Our more definite conclusions, however, must be reserved until we have analyzed the evidence.

If we consider the structure of Semitic and Aryan vocables, we find the following to be, perhaps, the most striking difference: in the latter class the radical portion of the word is almost always modified by additions at the end, whether in the base forms of nouns and verbs, or in the various inflections to which these are subject; while in the former the principle of augmentation at the beginning is also followed, as, for example, in the formation of the species (conjugations) of verbs, of the future (imperfect or aorist) tense, and of a large portion of the derivative nouns. This fact is seized upon by Ewald, who compares it with the

1 Abhandlung über den Zusammenhang des Nordischen (Türkischen), Mittel- und Koptischen Sprachstamnes (aus dem Zehnten Bande der Abhandl. der königl. Gesellschaft der Wissenschaften zu Göttingen). Göttingen, 1862. The full title of Professor Pott's treatise, in which it was severely criticised, is as follows: Anti-Kaulen; oder mythische Vorsellungen vom
predominance which the Coptic gives to prefixes in the formation of words, and infers from this, among other evidences, that the Semitic holds an intermediate position between that language and the Indo-European. He ascribes to this strong inclination for prefixes in the Semitic dialects the absence of terminal inflections in the nouns, or of cases, properly so called.¹ Yet from the circumstance that such elementary inflections as those that express person, gender, and number are formed through affixes, he assumes this to have been the original principle of formation. On this he rests one of his pleas for the acknowledgment of an original affinity with the Indo-European stock.² Not a very strong case, surely. Yet when we consider the intermediary relations which the Semitic seems to bear to the Aryan and the Coptic,³ the presumption upon this ground does not seem worthy of being slighted altogether.

We need, however, to look a little more closely into the structure of such forms in the respective types of language. When we examine an Aryan word, and arrive at what is considered the root, we find that the latter is transferred to a derivative or to an inflected form without internal modification. In all cases, certainly, the principle is clear that the parts of the root are inseparable, and that its vowel as well as consonantal elements must enter into the combination. But the Semitic principle is totally different. The consonants

¹ Ursprungs der Völker u. Sprachen. Nebst Beurtheilung der zwei sprachwissenschaftlichen Abhandlungen Heinrich von Ewald's, Lemgo u. Detmold, 1863. Although Professor Pott made an effective presentation of the more obvious difficulties of Ewald's system of comparison, neither his arguments nor ours have any tendency to lessen the merit of the permanently valuable portion of the treatise, in which, starting from fundamental principles common to both families (which appear to us probable, though to him as scientifically established), he has traced with unsurpassed penetration and ingenuity the structural development of the two idioms.

² The accusative and genitive in Arabic, and the accusative in Ethiopic bear no true analogy to the cases of like appellation in the Aryan tongues. Ewald traces the a of the accusative to the ה directive in Hebrew; Ausf. hebr. Sprachlehre, § 216.

³ Comp. § 107 c. in his Ausf. hebr. Sprachlehre.

⁴ See p. 88 f. in our first Article.
which form the root or stem, while remaining themselves unchanged in their new relation, are separable, and may admit between them any of the whole stock of vowel sounds. Each of them, in fact, seems to be the centre of functional activity for itself within a certain range. Now, this divergence from the Aryan system seems to be even more radical than would be the assumed primitive correspondence in formative methods which we have just considered. It seems to be nearer the sources of the individual life in each system of speech, and therefore to be a more important element in determining their early relations. Thus we find that while from one plausible analogy we would be led to hope that a bond of union had been discovered, we are warned by a more searching analysis that the breach is wider than we had thought.¹

From this one point of view, therefore, we seem compelled to abandon the expectation of proving a structural relationship, and unless stronger evidence is forthcoming from other

¹ Ewald does not seem to have recognized this necessary priority of more essential to more formal characteristics in these languages. He thinks that the formative elements in the Semitic family, where prefix and affix were both employed, largely determined the principles of "inner mutation in the roots" (Zweite sprachw. Abhandlung, p. 64). He says that these appendages, pressing equally before and behind, tended at last to force their way into the body of the root, thus favoring the internal play of the vowels as modifying elements. To this, he adds, the original divisibility of the root lent its influence. We would suggest that the relations between the formal appendages and the internal structure of the word are as follows: — The greater freedom in the location of these appendages in the Semitic words is a secondary influence, due to the independent existence assigned to each radical of the triliteral root, so that not the whole body, but the individual members decide the place of the external additions. Hence, while in the Aryan languages the influence of analogy would of itself be sufficient to cause these appendages to appear uniformly at the place first chosen, namely at the end, the same tendency could not be equally felt in the Semitic vocables; for each letter would assert its autonomy, and claim its rightful share of the tributary elements. Naturally the force of the middle radical was kept in abeyance by the two others, one on each border. But that this was due merely to the exigencies of its position, and not to its own quiescence, may be inferred from the fact that in the most highly developed of the Semitic tongues — Arabic and Ethiopic — this letter assumed a powerful modifying activity, and actually instituted a new and complex system of internal inflection — the so-called broken plurals.

**VOL. XXXIII. No. 130.** 46
sources, we must only fall back upon the hope of establishing an ante-grammatical affinity.

We have now to inquire whether there is anything in the syntactical features of the two forms of speech to justify us in holding to a radical affinity between them. This task seems even less promising than the one just attempted. The general aspect of the Semitic mode of expression seems to have nothing whatever in common with the typical character of an Aryan sentence. They are as divergent as the mental characteristics of the two families of which they are the expression. The thought in any given case seems to be cast in entirely different moulds.¹ In the Semitic period we are struck with the absence of qualifying and subordinate clauses; its parts are simply co-ordinated. There is nothing complex in its structure; all is simple and direct, both in the construction of the members of the sentence and in the arrangement of its words. The specific distinctions of importance are, the relative positions assigned in each to the subject and the predicate, the modes in which the sentences are united, and the ways in which they express the relation of dependent words. Now, the same difficulty meets us in this comparison as that which we encountered in considering the structure of verbal forms: as far back as we are able to trace the two idioms we find that they have preserved essentially the same modes of expression. Thus it is characteristic of the Semitic syntax, throughout its history, that in the ordinary, direct, simple sentence the verb precedes and the subject follows; while in the Aryan languages the reverse order is as prevailingly the rule. It may be surmised that the actual order in the Semitic idiom was not the original one, and that there, as in the Aryan sentence, the subject, as being the leading word, was in earliest times placed first. But this is incapable of proof. Ewald institutes a subtle parallel² between supposed changes in the

¹ The cardinal distinctions are delicately discriminated by Renan, Histoire générale, etc., p. 19 ff.
² Zweite sprachw. Abhandlung, p. 57; comp. p. 28 f.
verbal and in the syntactical structure of the Semitic language. He believes, as we have seen, that the formative elements in Semitic words were originally placed at the end, and that the principle of prefixing them was of later origin. He then affirms that in conformity with this process there was an early but gradual change in the order of the parts in the sentence, so that what seems to us to be the natural arrangement was inverted.¹

The same ill-success seems inevitable in examining another leading distinction. The mode in which a dependent is joined to a governing noun in the Semitic, and which is found in all its dialects, bears no analogy to anything known in pure Aryan grammar.² That the first of the nouns should be modified, instead of the limiting one, is a principle essentially Semitic. Whatever may have been the origin of this construction; whether or not the vowel termination of the construct state, which is universal in Ethiopic, and has survived besides in archaic forms in Hebrew,³ was the original bond of union between the words so related, the impossibility still remains of bridging over the linguistic interval between this and the Aryan usage, according to which, the second or limiting noun must undergo inflection, or be governed by a preposition.

With regard to the third leading distinction in the sphere of the syntax, we think that the simple co-ordinated structure of the Semitic sentence with the prevailing use of merely copulative particles, is not so radical or so inherent in the system as to furnish even the external conditions of linguistic comparison. It is due, as it appears to us, almost entirely

¹ That the Indo-European order is the most natural may be inferred from such primitive types of language as the Chinese. See Max Müller, Science of Language, i. p. 118.

² The employment of a similar construction in modern Persian, and in Armenian, being a usage borrowed from the Semitic, is no exception to this rule, any more than is the tendency to separate the letters of a word by the insertion of a vowel, which is shown sometimes in the first-named language, and has the same source.

³ For opinions as to the origin of this termination, see Green, Heb. Gram. § 198 a; Ewald, Ausf. hebr. Spl. § 211 a.
to the intellectual character of the people at the formative periods of their language. The Semites, as a race, have not been given to habits of reflection or to logical reasoning, delighting rather in the contemplation of the external features of the objects of sense and the more lively emotions of the soul. Hence the absence of inferences, of close definitions, and of special qualifications. The discursive faculty was but little employed, and required no special instrument for its expression. But the comparison of the two idioms in this sphere would soon lead us from the study of the language to the study of the races themselves, and take us beyond our province.

Having thus attempted to outline a system of structural comparison between the two families of speech, it remains for us to sum up the meagre, yet instructive, results of our inquiry.

1. The two families are conspicuous among the languages of the world, through the possession of fully developed inflectional systems, as distinguished from the idioms called agglutinative and isolating.

1 The early inversion of the natural order of the elements of the simple sentence may have contributed its influence to the formation of Semitic style, as Ewald maintains (Zweite sprachw. Abh., p. 59), but probably only to a slight degree. Pott seems to be in error when, in criticizing Ewald, he says (Antiken, p. 281), that the brevity and uniformity of the Semitic sentence are due to the paucity of adaptable conjunctions, and of moods and tenses, which would subserve a like end. For, if we look merely at Ethiopic, a Semitic dialect which does possess a marvellous capacity for the expression of logical and connected thought, we see that it possesses those grammatical elements to the requisite amount. The inference is then near at hand, that, at the time of its growth into a distinct language, these parts of speech were evolved from its quickened resources, in order to serve the purposes of an exceptionally active intellectual life among the people; there being also no doubt that much mental activity did once exist. See Dillmann, Aethiop. Gramm., p. 6 f.; Ewald, Ausf. hebr. Sprachlehre, p. 34 f. This conclusion, as confirmed to a certain extent by the history of the Arabic, would go to show that the Semitic type of expression was conditioned by the mental antecedents of the race, and not by an inherent inadequacy of the language. Of course, when the cruder dialects became old and fixed, they lost the capacity of development, and when employed for unaccustomed purposes, had to borrow the necessary expressions from foreign idioms, as is proved from the history of Aramaic and Talmudic Hebrew.
2. Without considering the question whether what are ordinarily called roots in the Semitic dialects are really ultimate significant elements, it is plain that the bases of verbal forms in the two families are essentially distinct in their structural principles. This dissimilarity is marked not simply in the phenomenon that in the Semitic idiom they are generally composed of three consonants, but more fundamentally, in the independent activity assigned to each of these letters.

3. With regard to the formative elements of living words, we saw that there was some reason to believe that in the most essential, and presumably the most primitive, of inflected forms, they were attached at the end of the roots, as in the Aryan languages. This, however, does not furnish, by itself, a very strong argument in favor of a grammatical affinity.

4. The syntactical peculiarities of the two systems, as would naturally be expected, do not yield more favorable results, following, as they do, upon structural principles themselves divergent.

We are thus left without any direct demonstration of relationship from this source of evidence. The question then recurs: What, if any, is the residuum of testimony, from a structural comparison, in favor of the theory of the original unity of the two systems? It is to be feared that no answer, universally satisfactory, can be given. In some minds the common possession of an inflectional system would of itself create a strong presumption of an identity of origin. And when to this fact is added what has been alluded to with regard to the intermediate position of the North African family of languages, whose inflections hardly rise to the dignity of a system, but betray, when they do exist, a marked resemblance to the Semitic, the inference seems proper that the families last named went hand in hand in the earliest stages of their history, and after their separation followed in very different degrees the structural impulses which all three idioms had received in a common home. But apart
from this, and on general linguistic considerations, it does not seem likely that two such highly and fully developed systems of speech would have originated without a strong, even though very early, bond of relationship. They represent a supremely great achievement of the human mind, something unique in the history of men; and one is led to attribute a common impulse to the beginnings of each, as in the contemplation of the worship of the synagogue and of the cathedral, we are led back to the one supreme religious idea that the world has known. The theory of an original diversity in the two families appears, in fact, to raise a more formidable difficulty than those which the doctrine of their unity occasions, because the psychological phenomenon which it would imply is less credible than the assumption of a divergence from a common idiom, which, before the separation, contained the germs of a grammatical system.

Yet this kind of evidence is both too general and too subjective to command universal assent. At best it affords a presumption, and not a demonstration. Although, therefore, we think that the two families of speech were still united when the first manifestations of the inflective impulse were felt, yet, as we have very little scientific proof to present, based upon grammatical comparison, it is only left to us to see whether there is not another kind of evidence available in the inquiry.

We are thus led to compare the verbal forms possessed by the two families, and thence to determine whether analogies between separate words are obtainable in sufficient number to justify us in regarding them as something more than mere coincidences. But at the outset we are confronted by arguments urged against the admissibility of such evidence by those who hold that the two idioms are radically distinct. It will be necessary to test the validity of such objections before proceeding further.

We are first met with the general plea that, as grammatical features are the proper marks of linguistic relationship, it is unscientific as well as futile to go behind them, and to com-
pare the lexical contents of the two groups.\textsuperscript{1} This declaration is sweeping and imperious. Against any plausible coincidences already brought forward it is always urged that they must be the result of chance or of onomatopoeia, or of some subtle intellectual analogy in the formative processes of early speech. Against those who make any systematic attempt to compare the two idioms on the basis of their respective vocabularies it is maintained that they begin at the wrong end. The failure of Bopp in his attempt to compare the Indo-European with the Caucasian and Malayo-Polynesian families of speech is paraded\textsuperscript{2} as a proof of the exclusive sufficiency of the method of grammatical comparison, of which he had been the originator and expounder.

Now, before considering the special difficulties raised by these theorists in the way of adventurous and irreverent investigators, we should say that these vehement protests against an alleged unscientific method are themselves not at all in the spirit of true science, inasmuch as, if universally heeded, they would stand in the way of all progress in the further comparison of languages. A stop would at once be put to all efforts to co-ordinate into special families those languages of the so-called Turanian group, which agree only in the agglutinative or combinatory character, just as the Aryan and Semitic families agree in being inflectional. And so for the classification of other types of human speech. It may also be assumed that if the same spirit had been dominant at the beginning of the present century, those bold but happy

\textsuperscript{1} So Renan, Friedrich Müller, Sayce, and other opponents of the theory of an original affinity.

\textsuperscript{2} See Friedrich Müller, Grundriss der Sprachwissenschaft, I. Band (Vienna, 1876), p. 58. Comp. Benfey, Geschichte der Sprachwissenschaft u. der orientalischen Philologie in Deutschland. München, 1889, p. 511 ff. It is very likely that Bopp was inaccurate in many of his combinations with the above-mentioned languages; but on this general question of the admissibility of verbal comparisons, we cannot but respect very highly the judgment of the immortal founder of Comparative Philology. Here, as in his Glossarium Sanscritum (within the Aryan family), he was too hasty and liberal in the admission of analogies. But this was due to his method in practice, and not necessarily to the unsoundness of his theory, into whose conditions he probably saw as clearly and deeply as any dogmatic obstructionist of the present hour.
RELATIONS OF THE ARYAN AND SEMITIC LANGUAGES. [April,

generalizations without which, perhaps, comparative grammar itself might not have been created, would have been denounced as unscientific. The great discoveries within the sphere of the Indo-European family have made it fashionable to believe that glottology has unfolded all its fundamental principles, while it is forgotten that only small districts of human speech have been explored and annexed to the domain of science. The reaction against the old lawless methods of comparison which now prevails is no doubt wholesome and just; but it is a question whether this one of its present forms ought, or is likely, to be permanent.

But, more particularly, it is alleged that we are bound to forego any attempt to assimilate the two groups, because (it is said) science has established the fact that the various types of speech now known rest upon a primitive diversity of origin—that language was developed at first from numberless dialects, and not from a common source. Now if this dictum were conceded to be indisputably true, it would not settle the question at issue; for we should next have to determine what constitutes the primitive type in any given case; in other words, whether the two inflectional families of the world's speech may not have arisen from one original dialect. Such an issue is not necessarily excluded by the conditions of the supposed fact of linguistic history. For the limits of each early type or dialect must be settled in one or both of two ways: by appealing either to the evidence of the science of language, or to that of comparative ethnology. If we refer to the former, we find this at least, that these two families are the only ones that have a fully developed grammatical system; a fact suggestive of a possible primitive bond between them. If we appeal to the latter, the evidence is decidedly unfavorable to those who maintain a diversity of origin. The Semite differs but little physically from the Aryan, and resembles the European more than the latter does a Hindoo. This is acknowledged by Renan, one of the most influential of the class of writers alluded to, who admits that the current distinction is based chiefly upon language, and
affirms that, viewed from the physical side, the Semite and the Indo-European form but one race. The consideration that the two systems of speech together now occupy so much of the earth's surface does not come into conflict with the assumptions of the theory we are considering; as though the doctrine necessarily involved a certain ratio between the primitive extent of a language and the number of its present speakers. It is only maintained that the original dialects of mankind were numerous and diverse, it being an essential part of the theory that but comparatively few of the early stock now survive, the rest having been eliminated in the struggle for existence. It should also be remembered that, so far as we can judge, the primitive Aryans and Semites must have comprised only a relatively small portion of the earth's inhabitants, and that it was their inherent intellectual and moral superiority that secured their gradual progress, and their survival of the vast civilizations that preceded them.

Hence we see that no real advantage would be lost if the theory of the original multiplicity of language could be proved. Still, as it might seem to justify a presumption that each present great division of human speech had a separate beginning, it may be proper to say a few words upon the subject of its pretensions.

Those who maintain this polygenetic theory of language are usually disbelievers in the doctrine of the common origin of mankind. It may be assumed that they are influenced to a certain extent, by their views upon the latter question, formed upon other grounds than the results of linguistic research. Some eminent linguistic scholars think that the final decision of the question as to the original unity or diversity of language rests with physical science. Others maintain that ethnology and the science of language should not be mixed up together. However this may be, we have

1 Del'origine der language (4th ed.). Paris, 1864, pp. 204, 208.
2 E. Benfey, Geschichte d. Sprachwissenschaft in Deutschland, p. 789 f.
3 E. Max Müller, Science of Language, i. p. 326 f.
RELATIONS OF THE ARYAN AND SEMITIC LANGUAGES. [April, now to consider simply the worth of the linguistic proof which the advocates of the theory of a primitive diversity of dialects have to offer.¹

The argument upon which reliance is chiefly placed may be stated as follows: — Although it is natural to the human mind to seek for and to expect unity of origin in all forms of existing things, the facts of linguistic history point us to an opposite conclusion with regard to the development of language. It is a fact that widely-spread idioms owe their predominance to the influence of civilization; that if we turn to savage tribes (among whom are certainly to be sought traces of the earliest modes of Nature's workings), we find an endless diversity of dialects, each village, sometimes, having an idiom of its own; that if we go back to the earliest records of written speech, we see the same conditions exemplified, as in ancient compared with modern Greece; and that a number of subordinate considerations (which we cannot here adduce) strengthen and illustrate the position thus assumed. Since, therefore, as far back as we can go in the history of language we meet the same diversity as at present, or even a greater, it is only in accordance with the methods of science to conclude that it was always so.²

But surely it is only scientific to draw like inferences from like conditions. It is surely a perilous assumption to regard the conditions of the formative periods of language as analogous to those of its historical progress in the latest ages of the earth. Apart from the peculiar physical and psychological factors that must have entered into the formation of early speech for a long period, there is one possible


² On the origin and growth of dialectical differences in contravention of the above general theory, see Whitney, Language and the Study of Language, p. 177 ff.
difference of vital importance which is assumed not to have existed. It is regarded as an unquestionable fact that language could only have arisen when mankind had become very numerous and scattered. Passages might be cited from some of these writers which imply a contradiction of this position; though it is clearly the corner-stone of their whole theory. The assumption must be either that man sprang from a vast number of beginnings, so that mankind originally constituted different varieties; or that language is not an essential faculty of man, but developed very slowly indeed. When these doctrines are proved, we may be compelled to accept the theory, but not until then.

Let us see, however, what is the evidence really afforded by the conditions of savage life. If we take a general survey of any large country, peopled within historical times by savage tribes, we are at once impressed by the great multiplicity of dialects. But if we regard these tribes at successive periods of their history, we do not find that their dialects diminish through the course of time, but that with the growth of population they themselves increase. Hence, if we cast our glance backward beyond historical times, we can see that there must once have been in that country only, at most, a few primordial idioms. This surely follows, unless we assume that the population of such a country was originally greater than it is at present. Now let us look at the matter from another stand-point. We see that in large districts, or even in a whole continent (as in North America), only one single type of language has prevailed among the aborigines. But the historical diversity of dialectical expression is most easily explainable from the consideration that under such conditions of life there is always an impulse to unbounded variety, and especially that such an impulse must have been strongest with the first uncertain beginnings of speech. The inference therefore seems unavoidable, that within such a habitat, at least, the

1 As when Renan (Orig. du lang. p. 182), says that each group of men formed its language upon a foundation laid "par une tradition antérieure."

2 Whitney, p. 348 ff.
Babel of present dialects is reducible to one original type. We are not now attempting to show that all the varieties of human speech may be brought under one form; we only claim that the same conditions which could bring about the development of the American (polysynthetic) dialects from one primitive idiom might also have educated all the Aryan and Semitic (inflectional) dialects from one primordial centre. This possibility, certainly, is in no danger of disproof from a theory which would determine the conditions of the childhood of language by the regulated growth and ample scope of its vigorous youth, and can discern in the mysterious and far-distant past nothing but a copy of the familiar phenomena of the present.¹

We have now to consider the difficulties suggested by the advocates of another theory, capable, as we think of a more scientific defence. We are brought into contact with it in this way. When it is admitted that the grammatical features of the two forms of speech cannot be assimilated, and we proceed to consider the possibility of a comparison on the ground of verbal analogies, we have to assume that before the development of an inflectional system there was a more rudimentary form of speech, in which only the mere roots were employed, or, more definitely, in which there was no exemplification of the categories of root, stem, and base. The nearest approach to such a linguistic type is the Chinese language, whose vocables are capable of being used for any

¹ Many of the subordinate arguments employed by these scholars involve the same fallacy. Thus Renan (Orig. du langage, p. 177 ff.), lays great stress upon the fact that the terms employed by early tribes to designate their neighbors were usually derived from some notion implying the unintelligibleness of their language, they being usually styled “stammerers,” “dummies,” or some other such unsocial designations. He cites in confirmation such words as the German Wål (Welsh), the Sanskrit Mechha (supposed to be cognate with the former), the Greek Aglossoi and Barbaroi, the Abyssinian Timtim. He then proceeds to argue that language must have been originally divided no less impossibly. On this it is obvious to remark that we do not know whether these terms in all languages did not arise after the diverging dialects had become mutually unintelligible from familiar causes. Further, many of the cases are taken from within the Aryan family; and it is now certain that there was once a time when all those who used that idiom could make themselves mutually understood. To this opinion Renan himself elsewhere (op. cit. p. 49 ff.), professes his adherence.
of the parts of speech, and which attains a perfectly adequate
capacity of expression, merely through the relative position
of the words, and the use of a small number of particles. But there are some who would forbid us to assume such a
hypothetical Aryo-Semitic type of language, and who main-
tain strenuously that it is both improbable and unexampled;
that it has no ground in linguistic philosophy, and no anal-
ogy in the history of speech. It is maintained by them that
no language has ever passed from an isolating stage (as
above described) into an agglutinative or combinatory, and
none from either of these into an inflectional. Probably the
strongest assertion of this dogma has been made by E. Renan
and A. H. Sayce, in their works already cited. The question
is so vitally important to our discussion, that it demands a
serious, though necessarily a brief, consideration. We shall
therefore present the best evidence we can in favor of the
theory of the development in each of the families from a
more primitive type, considering the opinions and objections
of opposing theorists as they may occur to us in connection
with different points in our argument.

Our theory as to the divarication of the two families rests
upon the doctrine that every inflectional language must have
passed through a simpler combinatory stage (of longer or
shorter duration), which itself arose from an original iso-
lating type. In our grammatical comparison of the two
systems we did not think it necessary to discriminate be-
tween the first two stages, both because in these languages
the combinatory period appears to have been comparatively
brief, and because the structural divergences seemed so
radical as to exclude the probability of a common form of
speech after the process of combination had once begun.1
The evidence for this may be gathered from what has been
said of the modes in which the formative elements of full-
grown words are attached in each group, as well as of the
differences in their internal structure. We have to go right
back to the most simple and primitive type of language,

1 Comp. Max Müller, Rede Lecture on the Stratification of Language, Chips
from a German Workshop (Eng. ed.), iv. p. 102.
and we think the step may be justified demonstrably by proof that each system has been developed from a more rudimentary condition. As to the psychological causes which led to the adoption of the more complex forms of expression, we admit that they are to a large extent mysterious, but claim that they are not without historical exemplification. As to the occasions which led to the perpetuation of each system, after its origin, we hold that they are easily discoverable, and are being constantly repeated in the history of human speech.

We would remark, first, that we have an exhibition of tendencies in many languages which clearly reveal the possibility of such development. It is said, however, that there is no instance of a clear transition from one state to another. Certainly there is not; nor have we any right to expect that, after the forms of a language have been hardened through the course of ages, they could be changed easily and speedily. We do not claim, however, that any language has made this decisive transition under conditions similar to those with which we are now familiar. But it is manifest that in the early state of every form of speech, the possibilities of such a serious change were immeasurably greater. In those times men were seeking after suitable forms of expression, not having at hand any that had been gradually worked up into a familiar and adequate instrument of thought. One class of them would attempt, by various devices, to perfect, without radical change, the primitive rudimentary type, a task in which they succeeded admirably, as we learn from the adaptability of the Chinese to an unlimited range of ideas. Others would adopt the expedient of combining their roots; and this idea was carried out apparently in two main directions. Among the founders of the so-called agglutinative languages, predicative roots were modified (so far as we can determine) generally by other nominal and verbal forms; while the pioneers of inflectional speech made as decided a choice of demonstrative or pronominal roots to accomplish a similar end. In the former case, since both elements of the new compound stood out
with equal prominence, they would naturally retain their former importance, and oppose persistently the inevitable tendency to phonetic corruption; while in the latter the comparative unimportance of the determinative elements would subject them to the predominance of the radical portion, their individuality would, after a time, become lost in the consciousness of the speakers, and phonetic decay having one begun, the process would soon extend itself to the whole body of the word.

So much for the general process by which these complex systems were educed from the primitive condition of simplicity. The force which operated in each system to produce uniformity of structural type throughout its whole extent must have been chiefly the powerful influence of analogy. How potent this was in early times we may infer from its power even within historical periods, as we learn from the development of verbal forms in such idioms as the Romance languages, and most conspicuously, perhaps, in the dialects of France. And we maintain that the possibility of a transition from the isolating to a combinatory stage in early ages, ought not to be more difficult of conception than the change which has actually taken place in the development of the modern analytic out of the ancient synthetic languages. We must remember that men were groping after more complete and satisfactory modes of expression. They had not yet lost the spontaneity of primeval speech, and with an inherent, almost creative, facility they could achieve without reflection that which, to us, would seem to involve a radical intellectual change. When the superior fitness of the new principle of formation was once perceived, the whole family in which the change began would assimilate its speech with equal readiness to the forms of the more deserving system. The condition of things was very different after these aggressive principles became dominant. Each family, having moulded for itself a suitable instrument of thought, then possessed it. It did not seek any other, since it did not feel the need of it. Hence, we do not find in the acces-
sible forms of language, the very earliest of which is much later than the period we are describing as essential to the development of each family of speech, any instance of a complete transition from one type to another; nor should we expect it. The faculty of language is drawn upon only at need. It does not even furnish new words, unless these are required for the expression of new ideas; much less should we look for the creation of new grammatical categories without necessity. Yet we do find languages, some of whose features seem inexplicable on any other theory than the one we are advocating. We have such idioms as the Finnish, which are almost as much inflectional as agglutinative. We have that most puzzling of languages, the ancient Egyptian, about which scholars hesitate to say whether it should be called isolating, agglutinative, or inflectional. But of more importance than these facts are the peculiarities of some of the languages classed as isolating, such as those of Thibet and Siam, which partake largely of the combinatory character, while the Chinese itself, in some of its forms, exhibits a marked tendency in the same direction. If such mutability is manifested in languages checked in growth and fixed in general type through age, tradition, and usage, what must have been the capacity of radical change inherent in the earliest forms of speech, with all their simplicity and vagueness!

Our next argument is based upon the fact that an exami-
nation of fully-formed words in Aryan and Semitic speech attests the doctrine that they are ultimately due to the accretion of originally independent forms. The determinative elements added to the roots have been ascertained in a vast number of cases, and shown to possess a significance of their own. The natural assumption is, that the same is true of all the original compounds. In the Semitic family, where the process of analysis is peculiarly easy, this conclusion may almost be taken for granted. But the advocates of the opposite theory prefer to consider the Aryan languages, where, confessedly, there is much more that is obscure, in the ultimate constitution of some of the more primitive forms. Even with regard to these, however, the same presumption is probable. We are told, indeed, that as far back as we can trace the Aryan languages they are inflectional, and, beyond that, they must be remitted to the province of physical science, which, as we are told with great confidence, could only prove that the brain of the earliest Aryan was capable of originating no other type of language. But surely this is claiming too much. Inductive reasoning has surely something to offer on the opposite side. While explanations of forms hitherto obscure are continually being made, we feel a strong presumption that if we could only penetrate the mist through which the opening dawn of Aryan speech is faintly discernible, all that remains mysterious would yet be brought to light. If these elements are always significant, it would be certain to the ordinary mind that they were once used independently—a conclusion which would establish our theory.

Such a conclusion, it may be said, is only an inference from a partial analysis, and not a demonstration based upon the working of a universal principle. Even if this were to be conceded, there is another way of considering the general question which leads to the same result. It may be shown that the opposite theory is psychologically inconceivable. The formative elements were originally significant, or they

1 Sayce, op. cit. p. 158.
were not. If they were significant, they were previously independent vocables. If they were not significant, how account for their employment as determinative symbols in the earliest attempts of the race to achieve an intelligible method of oral communication? Now, it is maintained (as by Mr. Sayce) that although (as proved) later forms in these languages arose through the attachment of significant terms, or fragments of these, yet the example of inflection in the earliest periods was set in the creation of forms which conveyed in one single word both the fundamental and the modifying idea, the latter being expressed by "unmeaning terminations." ¹ Thereafter, as the needs of the languages demanded, the progress would be easy to the attachment of significant terms. Which of these two theories has the greater inherent probability may appear from a candid presentation of the assumptions demanded by each. According to the one theory, at the very birth of these languages, when, as we are bound to assume, men were just accomplishing the task of giving forth in sound intelligible signs for the objects of nature and the simplest qualities and actions, we are to believe that they expressed the various relations of these by attaching to the phonetic expression of the root-idea (which must itself have been held on precarious probation) any one of a number of mere grammatical symbols, these having no existence save in such combination. It is natural to suppose that the earliest efforts of speech were, at best, not very easily understood, and that at least the relations between various objects would at first have to be indicated by various contrivances, such as gestures or other outward signs. But to attempt to express such relations by drawing, on occasion, upon a number of arbitrary (since not significant) sounds, would have tended very much to discourage incipient vocal communication.² The other theory assumes

¹ Op. cit. p. 151. The words are evidently equivalent to "suffixes of little meaning" (p. 145, note). The use of the latter phrase may show how difficult it is to conceive of the growth of inflection by the attachment of unmeaning sounds to the root.

² The case is quite different with the formation of multiliteral, on the basis of
that at an early period, though not the earliest, of a given inflectional language, terms which had already grown familiar to the speakers, gradually came to have their various relations expressed by the combination with them of other words which were already accepted vocables; that at first those of early origin and of most frequent usage, such as demonstrative pronouns, were employed; that thereafter, as the circle of ideas widened, more special expressions came into use; and that in course of time, the sense of the independence of the two elements being lost, the word became one indivisible form in the popular consciousness. The choice lies between these two hypotheses, and only these; and hesitation between them does not, antecedently, seem possible.

But a very plausible argument is presented, to the effect that the farther back we go in the history of inflectional languages, the greater complexity of structure is to be found, while their tendency always has been, and still is, to greater simplicity, and we are therefore to assume that the primary types of expression were synthetic. Here again there is a fallacy, due to the failure to pass from the observed facts of accessible forms of language to the necessary conditions of its early development. The assertion that inflectional languages are continually becoming more analytic in their structure is based upon the phenomena of idioms that have received a literary cultivation, analysis being the necessary accompaniment of reflection, and the result of a self-conscious endeavor to attain greater simplicity and clearness of expression. Yet it may readily be conceded that back to a very remote period in the history of any such language the assumed conditions did exist. But the argument is valid only against any who might claim that throughout the progress of such an idiom a tendency to greater com-

bilateral, roots, where the object is merely to express an idea cognate with that of the more simple form. This involves simply a new application of the naming faculty already acquired. In the case before us, however, two or more utterly dissimilar ideas are to be brought into mutual relation, with one of which the symbol used to express it had no previous association. This would involve a new category of thought.
plexity prevailed. This, however, is not our position at all; for we think that a multiplicity of complex forms is just what would be expected after the combinatorial impulse began to manifest itself, in accordance with the general diversity and confusion of early linguistic efforts. Afterwards, when the language became fixed and was much employed in the expression of manifold thought, the simplifying process was equally inevitable. For the rest, we have already seen that among languages of the most primitive type the tendency unmistakably is to combination and complexity.

These observations, which are all we have space for here, will, it is hoped, show that there is no good reason for accepting without question the dicta of Renan,¹ that “languages issued ready made from the mould of the human mind,” and that linguistic “families appear as established types once for all.”²

We trust we have shown conclusively that there is nothing in the established principles of the science of language to forbid an assumption of the possibility of an ante-grammatical connection between the two forms of speech. Being now confined to the testimony that may be furnished, under strict rules of examination, by a comparison of the respective vocabularies, we shall conduct our inquiries upon the general plan indicated early in the present Article. The evidence to be presented will depend for effect upon its

² The following instance will serve to illustrate the value of the theory as an hypothesis. Mr. Sayce says (p. 148), with relation the Aryan family, “The clear flectional growth of the verb shows only that it took place during the historic period ...... that it was of later origin than the noun.” It clearly shows that the flection of the verb was later than that of the noun. How is this to be accounted for? Simply on the ground that the noun was found to require inflection first. It will never do to suppose that the bright and subtle Aryan were absolutely without such an essential mental instrument as the verb, until the noun had matured its inflectional system. Further, we believe it is held by most linguistic philosophers that the verb had the prior origin, a doctrine which has support in psychology as well as in the facts of language. See L. Geiger, Ureprung u. Entwicklung d. menschlichen Sprache u. Vernunft, i. p. 205. 1868–72.
collective, or rather upon its cumulative force. Our labors, however, will still be critical as well as constructive; and we shall seek to avoid those extreme positions with regard to the present question, which, on the one side, would tend to bring linguistic science into disrepute by reason of hasty assumptions, and, on the other, would serve to retard its progress by the attempt to show that all comparison in this department is merely a waste of energy.

ARTICLE VII.

DR. HODGE'S MISREPRESENTATIONS OF PRESIDENT FINNEY'S SYSTEM OF THEOLOGY.

BY REV. GEORGE F. WRIGHT, ANDOVER, MASS.

The death, on the 16th of August, 1875, at the advanced age of eighty-three, of the Rev. Charles G. Finney, removed one who had long been a conspicuous actor in some phases of what is called the New School controversy. Educated for the law, he became, soon after his conversion and till his old age, a remarkable instrument in the promotion of revivals throughout the Middle and Eastern States, and to some extent in England. He was regularly inducted into the Presbyterian ministry in 1824. The extreme Calvinism of the time and region in which he began his labors, compelled him as a practical preacher to dwell with great emphasis on the obverse side of the doctrines of divine sovereignty and election, and to give a prominence to human responsibility and the freedom of the will which has led to much misapprehension regarding his real position as a moderate Calvinist. President Finney differed from many so-called " revivalists" in this, that his preaching was pre-eminently doctrinal. His presentations of "the total, moral, voluntary depravity of unregenerate man, the necessity of a radical change of heart through the truth, by the agency of the Holy Ghost; the divinity and humanity of our Lord Jesus Christ; his vicarious atonement, equal to the wants of all mankind; the gift, divinity, and agency of the Holy Ghost; repentance, faith, justification by faith, sanctification by faith," were sharp-cut and powerful.1 "The doctrine of the justice of endless punishment, ... and not only its justice, but the certainty that sinners will be endlessly punished if they die in their sins, was strongly held forth. On all these points the gospel was

1 Memoirs, p. 134.