

The Nature of the Semitic Root

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The nature of the Semitic root is a moot problem that has often been discussed by professional Semitists. This paper is a modest endeavour to give a short account of some of the most important studies of the problem that have appeared quite recently in publications which are not so easily accessible here in India.¹ An effort will also be made to point out the significance of these contributions for answering the question regarding the relationship between the Semitic and Indo-European language families.

I

Grammarians have always felt that the Semitic root with its trilateral form is an artistic creation, that it represents the final term of a process of levelling that took place in prehistorical times, a process whose purpose was to create a strict uniformity. Many theories have been put forward, ever since the commencement of the scientific study of Semitic languages in the past century, to account for the phenomenon of triliteralism.² It has often been pointed out, for example, that the roots *pāras*, 'to break, split,' *pārar*, 'to break, crumble,' *pāraq*, 'to break', *pāras*, 'to break', *paras*, 'to spread, disperse', etc., contain the same biconsonantal stem which undergoes, as a result of the affixation of determinatives, semantic modifications. Most of the

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¹ To keep the essay within reasonable bounds we leave out of consideration the penetrating observations on the Semitic root in the detailed study of K. Petráček, 'Die innere Flexion in den semitischen Sprachen. Entstehung und Entwicklung des Systems I-IV', *Archiv Orientální* 28 (1960) pp. 547-606; 29 (1961) pp. 513-45; 30 (1962) pp. 365-408; 31 (1961) pp. 577-624; 32 (1964) pp. 185-222. The special views of Alexander Sperber (who is quite hostile to diachronic linguistics and claims that it is not yet time to write a comparative grammar of Hebrew) are expressed in his massive work *A Historical Grammar of Biblical Hebrew. A Presentation of Problems with Suggestions to their Solution* (Leiden, 1966) will not be touched upon. The synchronic point of view is represented by J. Cantineau, 'La notion du schème et son alteration dans diverses langues sémitiques', *Semitica* 3 (1950) pp. 73-83.

² All the literature on the problem up to 1947 is surveyed by G. J. Botterweck, *Der Trilateralismus im Semitischen erläutert an den Wurzeln GL, KL, OL* (Benner biblische Beiträge, Bd. 3., 1952). cf. too S. Moscati (ed.), *An Introduction to the Comparative Grammar of the Semitic Languages* (Porta linguarum orientalium N. S. 6, Wiesbaden, 1964).

time, however, scholars have taken the weak verbs³ as their starting point, as these exhibit a host of peculiarities which can best be accounted for on the assumption that they were originally biliteral stems.

There is no exaggeration in saying that the most original contribution towards the elucidation of the problem of weak verbs was made by Landsberger in 1926, though, as was his wont, he never bothered to develop further his precious insight. His suggestion, in brief, was that the different types of weak verbs show some measure of correlation with certain specific semantic categories.⁴ Starting from this basic insight Landsberger's student von Soden has investigated in detail the question of semantic correlation in Semitic roots,⁵ and has demonstrated that *n*, and *w/y* are augments that serve to determine biconsonantal stems. As for the consonant *l*, it too is an augment like the ones just mentioned, i.e. when it occurs in the initial position. Furthermore, it can, in certain instances, be assimilated.

In the case of fientive verbs with *n* as the first radical or augment, the biconsonantal base denotes some sound or other; e.g., *nasāqum*, 'to produce the sound *siq*': *napāsum*, 'to produce the sound *pus*': *nabāhum*, 'to emit the sound *buh*, to howl, bark': *nakāsum*, 'to make the sound *kis*, to ward off', etc. There are other verbs *primae Nūn* in which *n* functions as an indicator of direction: *nadānum*, 'to give': *natālum*, 'to look towards': *nasum*, 'to lift up' etc.⁶ From Hebrew we may cite here *nāfal*, and from Arabic *nāzala*, 'to dwell'. These are as noted above, fientive verbs, which are to be clearly distinguished from stative verbs which denote a condition or state, such as *nawārum* 'to shine', *nazāqum* 'to worry', etc., and in which initial *n* is part of the root.⁷

³ By the term 'weak verb' is meant any verb that has as its initial, middle or final radical a consonant which, by reason of its feebleness, gives rise to modifications in the paradigm. The weakness in question here consists in the fact that the consonant may coalesce with the vowel preceding it, so as it form a long vowel, suffer assimilation, syncopation, aphaeresis, and apocopation. Our descriptive definition envisages above all the Hebrew language. The expression 'irregular verbs' is misleading and inaccurate, for all phonetic laws exhibit a certain regularity, and if there are forms that do not conform to the paradigm it is because special laws are governing its formation.

⁴ B. Landsberger, 'Die Eigenbegrifflichkeit der babylonischen Welt', *Islamica* 2 (1926) pp. 355-72. Cf. too the same scholar's 'Prinzipienfragen der semitischen, speziell der hebräischen Grammatik', *Orientalistische Literaturzeitung* 29 (1926) cols. 196-214.

⁵ W. von Soden, *Grundriss der akkadischen Grammatik* (Analecta Orientalia 33, Rome, 1952; 2nd ed., 1969), § 100 (pp. 133f.). Cf. too von Soden, 'n als Wurzelaugment im Semitischen', *Wissenschaftliche Zeitschrift Halle* 17 (1968) pp. 175-84. This article makes a detailed survey of the West Semitic material. This *Grundriss* must be used in conjunction with detailed review article by I. J. Gelb, 'Notes on von Soden's Grammar', *Bibliotheca orientalis* 12 (1955) pp. 93-111.

⁶ *Grundriss* § 102 (pp. 136 f.); 'Wurzelaugment', pp. 175-77.

⁷ The final consonant of these roots must be regarded as suffixes that came to be added to biliteral bases commencing with *Num*.

The case of the verb *lāqah* is unique inasmuch as its initial radical behaves like a strong consonant in Accadian, Arabic and Ethiopic, while in Hebrew it is assimilated like *n*.⁸ In addition there is *selaq* whose *l* may very well have once been vocalic⁹ but is at present subject to assimilation. Finally mention must be made of the common verb *hālak* in which *l*, according to the Masoretic vocalization in the book of Ezra (cf. 5:5; 7:13) undergoes assimilation.¹⁰

The consonants *w* and *y* are interchangeable, and in the case of verbs commencing with *w* a distinction is to be made between fientive and stative verbs: only in the first group of verbs is *w* an augment while in the second group it is part of the root.¹¹ The fientive verbs at times denote involuntary actions (e.g., *walādum*—Hebrew *yālad*)¹², but they also signify movement to a term or goal; e.g., *warādum*, 'to go down', *wasābum*, 'to settle down, to dwell', *wasūm*, 'to go up', etc. In Imperial Aramaic the verbs *yetaḅ*, *yeda* and *yekil* attest the forms *yittib*, *yikkul* and *yinda*, wherein we have a good example of the occurrence of *n* as an augment denoting direction¹³, and though these have no counterpart in Hebrew, forms such as *vissōq* and *vissōr* point to the presence of *n* as augment.¹⁴

Verbs with medial *w/y*, which are really biconsonantal stems with a long vowel between the radicals,¹⁵ can, though rarely, have a stative sense,¹⁶ but most of the time they are fientive in nature and denote several semantic categories; thus verbs with *ū* point to transition from one state or condition to another; e.g., *dākum*, 'to kill', *mātum*, 'to die', *qāpum*, 'to fall down' (said of walls), *nāsum*, 'to set in motion, to disturb', etc., other verbs denote various types of movements; for instance, *dālum*, 'to move around', *sārum*, 'to dance', etc. In the case of some verbs with the vowel *i* the reference is to bodily functions; thus *hiālum*, 'to feel pain', *siōhum*, 'to laugh', *siānum*, 'to urinate', etc. Finally there are in Accadian verbs denoting terminative-resultative actions, such as *diānum*, 'to pronounce judgment', *qiāsum*, 'to give as present', *siānum*, 'to determine', etc.

It is in Hebrew that we have examples of the addition of the augment *n* to fientive verbs *mediae infirmae*, the clearest instance being the *Hiph'il*

⁸ The usual explanation is that *Lamedh* is assimilated on the analogy of *Nun* in verbs *Primae Nun*; compare the case of *nātan*.

⁹ 'Wurzelaugment', p. 178. As in the Indo-European languages, so in the Semitic languages too *l*, *m*, *n*, and *r* can function as vowels.

¹⁰ 'Wurzelaugment', *ibid.*

¹¹ *Grundriss*, § 103 (pp. 138 f).

¹² 'Wurzelaugment', pp. 178 f.

¹³ The usual explanation is that the gemination of the middle radical in these forms is due to the analogy with triconsonantal verbs.

¹⁴ To account for these forms appeal has been made to quantitative metathesis and the influence of verbs *primae Nun*.

¹⁵ *Grundriss*, § 104 (p. 143).

¹⁶ E. G., *kānum*, 'to be, to be true', *barum*, 'to be clear', *siānum*, 'to be red/brown', etc.

form *yanniah*, from the root *mūah* which normally should yield *yāniah*¹⁷, a form occurring at times in the Masoretic text. The remark here made is true also of the verbs *līn*, 'to murmur', and *līz*, 'to depart', which in the causative stem, attest the imperfect forms *yallīn* and *yallīz*.¹⁸

Verbs *ultimae infirmae* have two consonants, and in place of the final radical there is a long vowel which generally is *i* or *u*.¹⁹ Like the other groups of verbs just mentioned these too can be stative or fientive, but these latter, in contradistinction to the other types, do not fit in with any semantic category, and neither do they as a rule attest the augment *n*.²⁰ The only thing that is clear about them is that verbs with final *i* can denote durative actions; e.g., *banīm*, 'to build'. Some verbs belonging to this group have been transformed into trilaterals by the repetition of the second consonant; thus from *herūm* is created *hardūm*, 'to dig furrows', and from *redūm*, 'to follow', *radādūm*, 'to persecute'. From Hebrew we may cite *dākāh*, 'to crush', and *dākak*, 'id'.

The latest attempt to solve the problem of final weak verbs has been made by the Israeli scholar M. Fraenkel in a massive monograph on this group and its bearing upon the problem of the relationship between Semitic and Indo-European languages.²¹ The discussions in this thick volume are too complicated to be summarized here within a brief paragraph. For our purpose suffice it to note that final weak verbs represent biconsonantal stems which never received augments at the beginning and suffixes at the end, with the result that they continued to retain their original form. The element of trilateralism they now exhibit, for example in Hebrew, is a very late and artificial development. This observation will help us to account for the absence of any specific semantic correlation in verbs *ultimae infirmae*: correlation is the result of the presence of an augment, but since these verbs do not have any augment, they do not have any semantic correlation either.

Accadian verbs *mediae* and *ultimae* have been submitted to a detailed scrutiny by Kienast in an endeavour to account for the anomalies they exhibit.²² Taking the imperative form of the simple stem as his criterion, he argues that there are biconsonantal stems with short *i*

¹⁷ The common understanding is that *yanniah* is a quasi-Aramaism, but some scholars see here an instance of quantitative metathesis exhibiting also a difference in meaning.

¹⁸ 'Wurzelaugment', p. 181.

¹⁹ *Grundriss*, § 105 (pp. 146 f.). There are scholars who advocate a similar position and argue that this group of verbs originally consisted of consonant short vowel + consonant + the short vowel *i* or *u* (as in *bini*, and *gulu*) which eventually became long.

²⁰ On verbs which are *primae Nun* and *ultimae infirmae*, cf. the observations of Kienast (n. 22) summarized below.

²¹ The work bears the title *Zur Theorie der Lamedh-He-Stämme, gleichzeitig ein Beitrag zur semitisch-indogermanischen Sprachverwandtschaft* (Jerusalem, 1970).

²² B. Kienast, 'Das system der zwwiradikaligen Verben im Akkadischen (Ein Beitrag zur vergleichenden Semitistik)', *Zeitschrift für Assyriologie* 55, (1968) pp. 138-65.

(e.g., *sīb*, from *wasābum*), others with long *u* (e.g., *kún*, from *kánum*), and still others with long *i* in the final position (e.g., *bini* from *banúm*). In other words there is the type *pīs*, with a short vowel in between the radicals, which includes verbs that have been transformed into trilaterals by means of the augments *n* and *w*. In the next place there is the type *pús*, with a long vowel that serves to differentiate this group from the previous one. The forms belonging to these two types are governed by the principles of vowel gradation,²³ but what is more important still, some of them preserve their original biconsonantal base while the rest show the tendency to become conformed to trilateral roots. Finally there is the type *pasi*, which, in Kienast's view, was originally constituted by monoliteral stems, and this is especially the case with roots that have *n* or *w* at the beginning. Here belong, then, the following Accadian verbs which have their equivalents in Hebrew: *bi*: *nabúm* (=Hebrew *nāba'*); *ru*: *warúm* (=Hebrew *yārāh*), *si*: *nasúm* (=Hebrew *nasa*), and *si*: *wasúm* (=Hebrew *yāsā'*).²⁴ In conclusion, the Semitic root was occasionally monoliteral in nature.

II

From the discussions above it is clear that in prehistorical times Semitic roots were for the most part biconsonantal. This is a conclusion that is of the utmost importance for the elucidation of the relationship between the Semitic and Indo-European families.²⁵ The surprising thing about the roots of the latter family is that they, despite the extraordinary number of syllables that some words actually have, were originally biconsonantal, exhibiting the structure consonant + vowel + consonant. To the biconsonantal bases were added suffixes, and to these, after the reduction of the root's vowel to zero, extension elements which, like the suffixes, were all consonantal in nature, and had, of course, semantic functions. It is, therefore, possible to speak of the two states of the Indo-European root, namely, the normal state

²³ For examples of vowel gradation (known also as apophony, and ablaut), compare Latin *tego*: *toga*, Greek *lego*: *logos*, English *sing*: *sang*, *find*: *found*, etc.

²⁴ Here belongs too the Hebrew verb *nātāh* which, like Accadian *nabúm*, is doubly weak.

²⁵ The bibliography on this problem is really vast. From among the numerous publications that have appeared after 1925 we may mention A. Cuny *Recherches sur le vocalisme, le consonantisme et la formation des racines en 'Nostratique', ancêtre de l'Indo-européen et du Chamito-sémitique* (Paris, 1943); *Invitation à l'étude comparative des langues indo-européennes et des langues chamito-sémitiques* (Bordeaux, 1946). L. Hoilemann, *Chamito-sémitico e indo-europeo* (Bologna, 1949). M. L. Mayer, 'Ricerche sul problema dei rapporti fra lingue indoeuropee e lingue semitiche', *Acme* 13 (1960) pp. 77-100. P. Meriuggi, 'Il problema della parentela dell' indoeuropeo col semitico' *Sprachwissenschaftliche Studien* (Festchr. c. Meinhof, Hamburg, 1927), pp. 416-24. A. Schott, 'Indogermanisch-Semitisch-Sumerisch; *Germanen und Indogermanen* II (Festchr. für H. Hirt, Heidelberg, 1936), pp. 45-95. In our discussions we follow very closely E. Benveniste, *Origines de la formation des noms en indo-européen* I (Paris, 1935; later reprints), pp. 147-73 ('Esquisse d'une théorie de la racine').

with full vowel and accent, and the reduced state with zero-vowel and the consequent shift of accent. The following table is meant to illustrate what has been said:²⁶

I	II
<i>pér-k-</i> (Lith. <i>per-su</i>)	<i>pr-ék-</i> (Latin <i>prec-</i>)
<i>tér-m-</i> (Greek <i>tér-m-a</i>)	<i>tr-ém-</i> (Old Irish <i>thromr</i>)
<i>wér-g-</i> (Greek <i>Férgon</i>)	<i>wr-ég-</i> (Greek <i>rhexo</i>)
<i>sér-w-</i> (Latin <i>seru</i>)	<i>sr-éw-</i> (Sans. <i>srav-</i>)

We thus see that the Semitic and Indo-European roots are quite alike in structure, and in both the families word-formation takes place through the addition of affixes.

As for the first state of the Indo-European root, it has its counterpart in the strong roots of the Semitic family which have a third consonant corresponding to the suffix in Indo-European. The second state in its purity is, in the historical languages at least, never attested, for even though the Semitic accent is free and as such can be shifted whenever additions are made to the stem, there is no possibility of reducing to zero the vowel of the base. In fact, the pattern *pre-ék-* is an impossibility²⁷ in the Semitic languages of the historical period, but this may represent either a late prehistorical development, or what is more likely, a special characteristic the Semitic family acquired after the break-up of Indo-European and Semitic unity, perhaps survivals of the second state may be seen in *i-pr-us*, *ya-qt-ul*, etc.

An Indo-European base can take one suffix and one extension but never two suffixes or two extensions, and the extension can be added only to roots which have the zero grade.²⁸ Accordingly from *dr-ék-* + suffix *-s-* we derive *dréks-* (=Sans. *dráks-*), but a formation such as *dr-ék-es* or *dér-ék-es* is an impossibility; or again, from *pre-ék-* + suffix *-s-* we derive *préks-* (=Sans. *práks-*), but here too a form like *pér-ék-es* is utterly impossible. The recognition of this procedure is of paramount importance, for only thus we account for the origin of suffixes, etc. in Indo-European, the development of words, and finally inflexion. Reverting to the Semitic languages, we say that they too take suffixes and extensions, whose addition to the base is, however, governed by special laws in historical times; and these affixed elements now appear as morphemes denoting gender, number and case/mood.²⁹

²⁶ Benveniste, *op. cit.*, p. 150.

²⁷ This impossibility may be said to be relative as speakers of dialects (e.g., Arabs) make use of the pattern indicated in the text.

²⁸ Benveniste, *op. cit.*, pp. 152 f.

²⁹ Exhaustive discussions on this point in I. J. Gelb, *Sequential Reconstruction of Proto-Akkadian* (Assyriological Studies No. 18, Chicago, 1969). On p. xii the author remarks: 'My occasional references to Indo-European languages are aimed mainly at illustrating certain general features of a linguistic development. Indirectly they serve the purpose of giving substance to my firm belief in the common ancestry of the Semitic, 'Hamitic', and Indo-European languages. The application of sequential reconstruction to Indo-European languages holds great promise for the future'.

As is well known, the Semitic languages have a number of laryngeals corresponding to which there is nothing in the historical languages of the Indo-European family, but scholars had, already in the last century,³⁰ arrived at the conclusion that the parent language did as a matter of fact possess laryngeals which, though, came to be lost in the course of time. What they guessed has been confirmed by the data furnished by Hittite which is the oldest of the Indo-European languages with a literature. Now Hittite words which have their exact equivalents in the other Indo-European languages present the phoneme /h/,³¹ and a comparison of the evidence shows beyond doubt that this phoneme includes within itself three laryngeals, each with its own peculiar vocalic timbre. This is an extremely complicated matter, and the examples that follow are meant to give the non-specialist some idea of the nature of the phoneme preserved by Hittite h:

hastai- : Greek *osteon*, Sans. *asthi*
pahhur- : Greek *pur*, English *pyre*
newahh- : Latin *novare*, Sans. *nava-*

Professional Indo-Europeanists transcribe this sound as ϑ or H , and since it has three variations they use the sigla ϑ_1 or H_1 , ϑ_2 or H_2 and ϑ_3 or H_3 . In conclusion the parental language of the Indo-European group was in possession of three laryngeals.³²

The discovery of Hittite *h* has helped to establish another point of contact between the Semitic and Indo-European families: as the Semitic root necessarily begins with a consonant, so the Indo-European root too, though in prehistorical times, commenced with a consonant. True it is that dictionaries of the Indo-European languages list a host of words starting with a vowel, whose secondary nature can,

³⁰ We mean above all Ferdinand de Saussure, *Mémoire sur le système primitif des voyelles dans les langues indo-européennes* (Leipzig, 1879). This work is actually the first scientific statement of the theory of laryngeals.

³¹ On this phoneme, cf. W. Couvreur, *De Hettitische H. Een bijdrag tot de studie van het Indo-Europeesche Vocalisme* (Bibliothèque du Muséeon 5, Louvain, 1937). The significance of this phoneme was first detected by the Polish Indo-Europeanist Jerzy Kuryowicz, who made known his discovery in his essay, 'ĕ indo-européen et h hittite', *Symbolae grammaticae in honorem Joannis Rozwadowsky I* (Krakow, 1927), pp. 95ff. (not accessible to me); cf. too the same scholar's *Etudes indoeuropéennes I* (Krakow, 1935), pp. 69-99 ('Les éléments consonantiques disparus en indoeuropéen'). Latest discussion in F. O. Lindeman, *Einführung in die Laryngaltheorie* (Berlin, 1970). For the sake of those who are not familiar with Indo-European philology we wish to note here that there are scholars who reject outright the whole theory of laryngeals, but their negative attitude seems to have hardly any justification.

³² These are represented in historical languages by the long vowels *e*, *a* and *o*; the following table brings out this point:

$eH_1 > \bar{e}$: *dheH_1 > dhē* = Lat. *fē-ci*, Gr. *ti-thē-mi*, Sans. *dha-*
 $eH_2 > \bar{a}$: *steH_2 > stā* = Lat. *stā-re*, Sans. *sthā-*
 $eH_3 > \bar{o}$: *deH_3 > dō* = Lat. *dō*, Gr. *di-dō-mi*, Sans. *da-dā-mi*

however, be demonstrated with the help of evidence furnished primarily by Greek and to a certain extent by Armenian: the former, especially, preserves in the vowels *e*, *a*, and *o*, which, surprisingly enough, do not have any parallel in the other languages. Here are a few examples chosen at random:⁸³

I	II
<i>H₁én-w-</i> (Arm. <i>inn-</i>)	<i>H₁n-éu-</i> (Greek <i>en(n) éFa</i>)
<i>H₁én-k-</i> (Greek <i>ogkos</i>)	<i>H₁n.ék-</i> (Greek <i>enek-</i>)
<i>H₂éu-g-</i> (Latin <i>aug-</i>)	<i>H₂w-ég-</i> (Greek <i>aFéwō</i>)
<i>H₂él-g-</i> (Greek <i>algos</i>)	<i>H₂l-eg-</i> (Greek <i>alégō</i>)
<i>H₃ér-g-</i> (Greek <i>orguia</i>)	<i>H₃r-ég-</i> (Greek <i>orégō</i>)
<i>H₃él-k-</i> (Greek <i>alk-</i>)	<i>H₃l-ék-</i> (Greek <i>oléko</i>)

The prothetic vowel in Greek is, then a survival from a consonantal phoneme that once existed in the parent language but came to be lost in the course of time. The conclusion to be drawn from the phenomenon described here is that the Semitic and Indo-European roots possessed, in prehistorical times, the same structure.

A first point we wish to mention here briefly, though it has nothing much to do with the problem of the nature of the Semitic root, is the use of prefixes in inflection of verbs in the two families. While Accadian has two prefix forms⁸⁴, other languages like Arabic and Hebrew have only one, and in both these groups prefixation has a great role to play. As for the Indo-European languages, only Greek and Sanskrit attest prefix formations: *epheron*=*abharam*. From the testimony of these two languages it is lawful to draw the inference that the parent language of the group possessed prefix tenses, which, however, came to be lost in the case of some of the languages of the family. Or it might also be that verbal forms with prefixes did not play any great role in common Indo-European and as such did not leave traces in all the languages of the family.

We are now at the end of our survey, and we may now formulate the following conclusions. (1) The Semitic root was originally biconsonantal consisting of consonant+vowel+consonant. (2) The Indo-European root too was originally biconsonantal, commencing with a consonant and including laryngeals. (3) In the case of the Semitic root additions are made to the base, and these constitute the morphemes of gender, number and case/mood. (4) The Indo-European root too receives additions that serve to indicate these modalities. (5) Verbal bases in Semitic take prefixes, but in the case of the Indo-European languages these do not have any great importance. In conclusion, the two language families, despite the amazing diversity they now show, also possess a very close, but not so easily perceptible, affinity that, in its turn, points to a common origin in prehistoric times⁸⁵.

⁸³ Benveniste, *op. cit.*, p. 152.

⁸⁴ That is, *iprus* (punctual-present) and *ipárras* (durative-present). The same distinction survives in Ethiopic as well: *yeqtel* and *yaqatəl*.

⁸⁵ The period around 10,000 B.C. is the most probable date for what we have called 'prehistorical times'. Compare Cuny, *Invitation*.