

# **Within Distributed Morphology, the 3-to-5-Consonantal Bases Cannot Possibly be Considered Roots**

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## **1. Introduction**

Kastner (2014, 2016), started developing a contemporary description of the Hebrew verb system in the framework of Distributed Morphology (DM). The goal of this article is to present a somewhat different approach (also within DM) to the understanding of Hebrew Roots.

In order to work with the entire set of Hebrew verbs, in Section 2 I classify the large number of verb classes into five Conjugations. Each of the five Conjugations subsumes a number of such smaller classes.

In Section 3, I describe the First, Second, and Third Conjugations. Section 4 follows with a discussion of the Fourth and Fifth Conjugations.

In Section 5, I explain that in Early Rabbinical Hebrew, the word *shoresh* (when used in a philological context), corresponds to the contemporary scientific term Base, rather than Root.

## **2. The Five Conjugations of Hebrew Verbs – Suppletion at Work**

When the notion of suppletion is not available, a suppletive prefix is traditionally described simply as a “weak consonant” in the Base. This is a very good way to deal with the situation in a non-theoretical setting. In other words, what DM calls a suppletive prefix, traditional Hebrew philology calls a “weak letter”. This is not really a disagreement but rather a difference of terminology.

In this article I introduce the five Conjugations of the Hebrew Verb. The first three Conjugations contain verbs that have suppletive affixes. An affix is called suppletive if its phonological exponent has more than one variant.

### 3. When a Base has a Suppletive Affix

In the First Conjugation, the Base starts with a “weak” consonant (usually ‘Y’ or ‘N’).

(1) *ya.da’, ya.shav, na.tan*

In the Second Conjugation the suppletive prefix is expressed as a reduplication of a Root final consonant in heavy stem forms.

(2) *me.so.vev, mit.bo.nen*

The verbs in the Third Conjugation have a verbalizing suppletive suffix ‘Y’.

(3) *‘a.si.ti, ba.ni.ti*

#### 3.1 The First Conjugation

The First Conjugation includes verb Bases that have a suppletive verbalizing prefix, Examples of the verbs in the first Conjugation, as in (4-6):

(4) *ya.da’, ya.lad, ya.rad, ya.shav, ya.tza?,...*

(5) *na.sa?, na.tan,...*

(6) *ha.lach, la.kach,...*

The initial consonant, being the phonological expression of a suppletive prefix, disappears in the infinitive and in the future tense, as in (7-9).

(7) *la.da’at, la.ledet, la.redet, la.shevet, la.tzet,...*

(8) *la.se?t, la.tet,...*

(9) *la.lechet, la.kachat,...*

In addition, in some contexts, the prefix is spelled out as ‘W’ instead of ‘Y’, and due to regular phonology is pronounced as ‘o’, as in (10).

(10) *no.da’, no.lad,...*

#### 3.2 The Second Conjugation

The Second Conjugation includes verbal Bases that have a suppletive prefix that has an empty exponent in *binyan Pa’al*. Its characteristic feature is the reduplication of the final consonant of the Root in the *binyanim Pi’el, Pu’al, and Hitpa’el*, as in (11-13). This reduplication is a manifestation a-la prosodic morphology of the same suppletive prefix.

- (11) *me.o'.fef, me.ro.mem, me.so.che'ach, me.so.vev,...*  
 (12) *me.ru.mam, me.ru.tzatz, me.su.vav,...*  
 (13) *mit.bo.nen, mit.lo.nen, mit.lo.tzetz, mit.ro.mem,...*

In *binyan Pa'al*, the verbs of the Second Conjugation have transparently bi-consonantal Roots, as in (14).

- (14) *baʔ, kam, lan, ratz, sam, shar,...*

### 3.3 The Third Conjugation

The Third Conjugation has a suppletive suffix. Traditional grammars say that the third consonant of the Base is 'H', and some scholars insist it is a 'Y'. In terms of DM, this is a clear case of suppletion. Sometimes the phonological exponent is indeed 'Y' as in (15), and sometimes it is 'W' as in (16). There are also other forms.

- (15) *'a.si.ti, ba.ni.ti, ra.tzi.ti,...*  
 (16) *la'a.sot, liv.not, lir.tzot,...*

The Third Conjugation verbs have an inflectional suffix 'T' in the infinitive.

## 4. When a Base Does Not have a Suppletive Affix

In the remaining 2 Conjugations (Four and Five) the consonants of the Base are not considered 'weak' because the verbalizing suffixes are not suppletive.

### 4.1 The Fourth Conjugation

The Fourth Conjugation consists of verbs in which the Root appears twice. The verbalizing prefix is expressed as a reduplication of the Root.

- (17) *sigseg, shia'shea'*

Interestingly the verbs of the fourth Conjugation only appear in the heavy *binyanim*.

There are also four derivational prefixes ( 'ʔ', 'M', 'Sh', 'T') that take a Fifth Conjugation verbal Base and generate a new verbal Base.

- (18) *ʔichsen, misper, shichzer, tifqed*

When a verb consists of two instances of the same pair of consonants, we have a very clear case of a composite verbal Base. The reduplication of its bi-consonantal Root is caused by the exponent of the verbalizing affix. There are many verbs of this type.

## 4.2 The Fifth Conjugation

In the first four Conjugations, the identity of the bi-consonantal Root is instantly apparent. The situation is not so simple in the Fifth Conjugation. The Bases are still a result of the syntactic Merge of a bi-consonantal Root with a derivational prefix or suffix, but how do we know which of the consonants is the affix?

In the manuscript “Words” (Marantz 2000), the novel idea is introduced that for a particular class of verbs (so-called canonical transitive verbs), a third consonant in the Base of the Hebrew verb is actually a ‘little v’. This ‘little v’ head then merges with a bi-consonantal Root to form a Base for the verb. Marantz (2000) credits this idea to an unpublished paper by Daniel Harbour.

This rule seems to be relevant only to the Fifth Conjugation, and only for the verbs that appear both in *Pa’al* and *Nif’al* as two forms of the same verb. Notice that none of the verbs in the first four Conjugations are canonical transitive verbs.

An additional argument for bi-consonantal Roots is based on the observation that when the Base has exactly three consonants, it is fully specified for a category and consequently it cannot be a Root.

Since the Roots are bi-consonantal, we expect to find Bases derived in more than one way. For example, the Base of the verb *safar* may be derived from the Root (*P,R*) by the verbalizing suffix ‘*S*’, while the Base of the noun *sapir* - from the Root (*S,P*) by the ‘little n’ prefix ‘*R*’.

The situation in which two different combinations of morphemes both generate the same sequence of consonants creates confusion which leads to a misguided notion that the Base of a Hebrew verb is not specified for a category. This misunderstanding is the background for many arguments typically given for a tri-literal Root.

## 5. Distinguishing Root from Base

The traditional description of Hebrew verbs was completed some 800 years ago (in a classic book called *Michlol*) building on the ideas introduced some 200 years earlier. This description became the basis for teaching Hebrew in the following generations and is still in use until this very day. The scientific edition of *Michlol* was published by William Chomsky.

*Michlol* describes in detail the construction of Hebrew verbs. The Early Rabbinical Hebrew word for Base is *shoresh*. The fact that in non-linguistic contexts the word *shoresh* is usually translated as Root is irrelevant.

Syntactic entities that consist of 3 or 4, and occasionally even 5 consonants, exactly correspond to the contemporary term ‘Base’, namely something that inflectional morphology is added to. It is simply too large to be called a Root.