Hebrew Verb Pattern Tendencies Clarified by Peirce's Universal Categories
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14 April 1998

Introduction

Like other Semitic languages such as Akkadian, Arabic, Aramaic, and Chaldean, Hebrew is based on a triconsonantal root system. Roots themselves have no definite meaning, but rather a root's set of three consonants carries a range of potential meanings. A root must be placed into a derivational pattern, which consists of vowels between each consonant and sometimes the addition of affixes, in order for the meaning to be realized. It is chiefly by these means rather than by use of an inventory of morphemes, as in Indo-European languages, that Hebrew has taken the raw material of word roots and generated from that the full range of meanings necessary for human expression. In this paper I examine the traditional explanation of one of the seven verb derivation patterns and show that a Peircean interpretation is more effective in explaining the internal criteria Hebrew uses to generate verbs in that pattern.

In transliterations, kh refers to כ, a voiceless velar fricative; x refers to ח, a voiceless uvular fricative; q refers to ק, a voiceless uvular stop (although it is pronounced by some speakers just like k); ` refers to ע, an ejective stop no longer used in modern Hebrew (now basically a glottal stop) but with a counterpart in modern Arabic; ' refers to א, a letter that is either silent or a glottal stop when between two vowels.

About Hebrew Verb Patterns (Binyanim)

An example of one root and its derivations is illustrative. The root אכל 'akhal implies a general idea of food but carries only a potential nonspecific meaning. When placed into the basic noun pattern it becomes אוכל 'okhel "food." In a simple adjectival pattern it becomes אכיל 'akhil "edi-

ble." In a more specific noun derivational pattern it becomes אכלן 'akhlan "glutton." There are

seven major verb patterns (binyanim, "houses"), each of which colors the root with a certain

kind of roughly predictable meaning. The same root אכל 'akhal placed in Pa`al, usually called

the simple verb form, remains אכל 'akhal and means (simply enough) "(he) ate." But put in the

Pi`el form, usually described as the intensive pattern, it becomes איכל 'ikel "he devoured/con-

sumed." Placing the root in the Hifˆil pattern, which often adds a causative meaning, we have

האכיל heˈekhil "he fed/nourished." And in the Hitpa`el pattern, which usually lends a reflexive

or reciprocal meaning, we have התאכל hitˈakel, which means not "he ate himself" but rather "it

digested." There are also closely corresponding passive patterns for Pa`ul (emphasizing comple-

tion for Pa`al), Pi`el (Pu`al), and Hifˆil (Hufˆal), and a roughly corresponding passive emphasiz-

ing process for Pa`al (Nifˆal).

To summarize, the paradigm of Hebrew verb patterns can be illustrated as follows:

Hebrew Verb Binyanim (Buildings)

	General effect of the verb pattern on the root's meaning			
	Basic	**Intensive**	**Causative**	**Reflexive/ Reciprocal**
Active	פעל **Pa`al** prefix: none	פיעל **Pi`el** prefix: none	הפעיל **Hifˆil** prefix: ה h	התפעל **Hitpa`el** prefix: הת hit
Passive	נפעל **Nifˆal** prefix: נ n	פועל **Pu`al** prefix: none	הופעל **Hufˆal** prefix: ה h	

Voice

Prefixes apply to conjugations in the perfect tense.

Examining the Binyanim Stereotypes

Having looked at an introductory example of a root and its verb forms, let us now look at two others in all the non-passive binyanim. One example will be an obvious fulfillment of our expectations of each verb pattern's meaning, as generalized in the above table. The other example root will also generate a form in each binyan, but the meanings will not conform to our generalizations.

Root	Pa`al	Pi`el	Hif`il	Hitpa`el
אהב 'ahav	love	lust	cause to love;make lovable	fall in love
עבר `avar	pass;cross	impregnate; proclaim leap-year	take across; remove	become angry; become pregnant

As expected, the simple Pa`al אהב 'ahav "love" is intensified in the Pi`el איהב 'ihev "love passionately; lust." In the Hif`il we have האהיב he'ehiv "cause to love; make lovable," a stereotypic causative. And finally, the Hitpa`el התאהב hit'ahev "fall in love" is clearly reciprocal. If all roots manifested themselves in verb meanings such as these, the binyanim generalizations would be well justified.

But Pa`al עבר `avar "pass; cross" is not so straightforward. Its Pi`el form עיבר `iber "impregnate; proclaim a leap-year" doesn't seem at first glance like an intensive version of passing or crossing. Its Hif`il העביר he`evir "take across; remove" does seem to be a clear causative version of passing or crossing, but with the Hitpa`el התעבר hit`aber "become angry; become pregnant" we again return to more obscurely related meanings. The relationship of the meanings is not actually as opaque as it first seems. Impregnation requires a certain (to be graphic) passing of a threshold by the male impregnator; he must cross a boundary. Proclaiming a leap-year was an important act since the traditional Hebrew calendar had only 355 days and an extra month had to be added every three or so years to compensate; this proclamation was in some sense a passing from a regular year into a special year. And becoming angry is likewise crossing a line from a rational, thoughtful state of mind into one with limited logic and self-control.

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While the relationships of the meaning of each verb form can certainly be at least roughly explained in this manner, they can not be predicted. Because of this, nonnative learners of Hebrew have traditionally been taught to remember the general idea each pattern imposes on roots, as well as to learn by memory the unexpected, unpredictable meanings which often arise (as with "it digested"). Even children in Israel (or elsewhere) learning Hebrew as their mother tongue receive as explanations such generalizations as "Hitpa`el equals reflexive or reciprocal" despite the large number of exceptions.

Peirce's Universal Categories

Because these generalizations predispose the mind to seek explanation of a binyan's meaning in those terms (reflexive for Hitpa`el; intensive for Pi`el; etc.) it is difficult to conceive of other, possibly more predictive parameters. If Peirce's categories of Firstness, Secondness, and Thirdness are truly universal, they should prove helpful in this regard. Peirce claims that they "belong to every phenomenon, one being perhaps more prominent in one aspect of that phenomenon than another but all of them belonging to every phenomenon" (CP 5.43). We should thus find properties of one or more of the categories present to some degree in the binyanim.

Indeed, by closely examining a fairly broadly representative set of roots and their manifestations in the various patterns, we will see that the traditional binyanim generalizations are not the norm from which meanings occasionally deviate, but rather that they are semantic concepts borrowed from other languages but foreign to the native, genuinely Semitic mind.

Hitpa`el: Attributes

Peirce described Firstness of Secondness as "consist[ing] in the relation between two parts of one complex concept, or, as we may say, in the relation of a complex concept to itself, in respect to two of its parts" (CP 1.365). This is precisely what we sense when we think of reflexivity and reciprocity, the two traditional generalizations about meaning in the Hitpa`el pattern. Let us expand on the example used earlier: אני ואת התאהבנו ani ve-at hit'ahavnu "I and you (female) fell in love (with each other)." There are clearly two parts, *I* and *you,* that make up one complex whole, *we* who fell in love. The entire action of the verb is self-contained in the relationship between those two parts. If all Hitpa`el verbs had similar meanings, the binyan would clearly need to be described as being defined by Firstness of Secondness.

But recall the less clear case of התעברה hit`abrah "she became pregnant." The verb does not allow for the pregnancy coconspirator to be part of the subject, hence the passive translation in English. Pregnancy is less a situation of *she* relating to herself than it is of an embryo relating to her, affecting her and being nurtured by her. Yet the sense is not truly reciprocal, as the verb does not make mention of what she is pregnant with. Let us examine the other Peircean categories to see if any of them are shed some light on the matter.

Peirce describes Firstness of Thirdness as "the irreducible idea of plurality"(CP 5:70), emphasizing the notion of similarity (JSR). This is not likely applicable, as mother and embryo are not one entity being copied exactly, and though they may eventually be similar when the child is mature, this is certainly not the case now.

Secondness of Thirdness is "a behavior that splits into two species," (JSR) based not on a relationship of similarity, but rather on contiguity. Mother and embryo could be thought of as contiguous, although it seems less obtuse to describe mother as container and embryo as carried live-object. Peirce further mentions the tendency of Secondness of Thirdness to divide "into two

species, one a species where the secondness is strong, the other a species where the secondness is weak," such that "the strong species will subdivide into two that will be similarly related, without any corresponding subdivision of the weak species" (CP 5.69). The resulting hierarchical catena diagram of the relationship between the species indicates that this is probably not appropriately describing the Hitpa`el.

Thirdness of Thirdness, or genuine Thirdness, is the realm of law and proposition. Peirce says that "the genus of relatively genuine Thirdness will subdivide by Trichotomy just like that from which it resulted. Only as the division proceeds, the subdivision becomes harder and harder to discern" (CP 5.72). Nothing here seems applicable, although elements of Thirdness could become more apparent as we look at more data.

Secondness of Secondness, or genuine Secondness, describes elements of the material world which lie in opposition to another, and events that transpire and become immutable fact (CP 2.84, 1.457). They cannot be argued with, they simply are. That pregnancy is a state that provides a certain degree of opposition to a woman, and does not allow itself to be argued with, is well known. Secondness is readily apparent in this verb, but it is less clear in the simple recip-rocal "we fell in love with each other." Two persons in the real world did the falling in love, yet something undefinable remains, making this not pure Secondness.

This other aspect is Firstness, which Peirce says is "whatever is directly and immediately in consciousness at any instant, just as it is, without regard to what it signifies, to what its parts are, to what causes it, or any of its relations to anything else" (CP 7.450). "It is the consciousness of a moment as it is in its singleness, without regard to its relations whether to its own elements or to anything else" (CP 7.540). If nothing else, those falling in love can usually be said not to care what caused it, or what's going on in the rest of the world. But because of the still somewhat important sense of parts where two individuals are in love or an embryo is inside the mother,

Hitpa`el would seem not be pure Firstness, but must have some amount of Secondness as initially mentioned.

Hitpa`el: Case Studies

Having looked at two Hitpa`el verbs and possible relevant attributes from the Peircean categories, let us now look at several more Hitpa`el verbs to see if the underlying motivations for meaning become more clear.

We already mentioned התאכל hit'akel "be digested." Here is, as with pregnancy, the idea of a container. If we think of agent being equal to patient, as is the case with reflexive verbs, we can imagine that the original sense of the root אכל "~eat" is still here as the food eats itself inside the stomach. There is also no attention paid to the outside world, the same as with the two falling in love.

התבלע hitbala` "be swallowed up; disappear" is interesting because the sense of self-containment is even stronger, to the point that the subject swallows itself and disappears inside itself. We have a mild sense of reflexivity, and no notion that the outside world had anything to do with the disappearance.

התחשב hitxashev "reckon; take into account," on the other hand, seems to require some input from the outside world. Something needs to be taken into account. The חשב xashav root makes a striking contrast in the other binyanim: Pi`el חישב xishev "calculate" and Hif`il החשיב hexeshiv "esteem" both strongly call for a direct object, while this Hitpa`el form can't take a direct object, instead needing a relative clause introduced by -ש she-. The English translation "reckon" more closely captures the notion of thinking internally, churning over something already known.

Another root, **כנס** kanas "~gather," poses similar issues. Its Hitpaˋel **התכנס** hitkanes "convene; come together" seems partite and exterior-oriented, until we consider the meaning of the root in the other binyanim: **כינס** kines "assemble; gather," where a separate agent acts on distinct entities to bring them physically near each other; **הכניס** hikhnis "bring in; admit," where again a separate agent invites something outside to enter a place or a group. These are the epitome of transitiveness, while the Hitpaˋel "convene" would be done by one of the group, and "coming together" would be a mutually agreed-upon activity with no distinct leader. Again Firstness is remarkably strong, with parts (an aspect of Secondness) certainly present but strongly deemphasized.

זכר zakhar "remember; call to mind" and its causative counterpart, **הזכיר** hizkir "remind; mention" both involve a direct object which is either called in from or sent out to the exterior world. **הזדכר** hizdaker (Hitpaˋel transposition form) "reminisce" is different in having no direct object, since one doesn't reminisce things themselves, but one reminisces about things, using the preposition **על** ˋal. As expected the sense of reflexiveness is present, as one remembers to oneself, yet neither the self as agent nor the things remembered as patient are prominent in the activity, making yet clearer the strong role of Firstness in Hitpaˋel.

A longtime favorite Hitpaˋel verb in local circles is **התחלק** hitxaleq "be divided; slide; glide" which is fundamentally different from the Paˋal **חלק** xalaq "divide; apportion," Piˋel **חילק** xileq "distribute," and Hifˋil **החליק** hexeliq "be smooth; flatter." Whereas dividing and distributing require distinction between the component parts of groups of objects and flattery might be thought of as apportioning undeserved compliments to someone, sliding and gliding are actions whose parts are infinitesimally small, unmeasurable divisions. They thus are best described as Firstness, with again a minor notion of parts relegated to unmeasurability and inconsequentialness.

The disease with which struck (נגע naga`) many people and arrived (הגיע higia`) at many towns was leprosy. The Hitpa`el verb התנגע hitnaga` meaning "be afflicted with leprosy" seems at first glance to require a disease-causing agent from outside the body to attack and would thus emphasize parts (even if the germ is not mentioned explicitly). It is possible that Secondness is stronger than usual in this case, but it is also likely that the mental image of disease during the development of this verb did not include external disease-causing agents, but rather an internal health problem or physiological malfunction. The sense of reaching or arrival in the Hif`il would imply even with such a mental image that the affliction came from elsewhere, perhaps as punishment from God.

Perhaps just as interesting are the roots which never developed a Hitpa`el form. פגע paga` "meet; offend; fall open," נפגע nifga` "feel hurt," and הפגיע hifgia` "intercede" are all too externally-oriented to allow for a form with strong Firstness. One doesn't fall open, although clothes or a mouth may. One doesn't offend oneself, although one's own odor may. We can't intercede for ourselves, since that would by definition be self-representation and not intercession. And it's tough to hurt one's own feelings.

יבא yibe' "import" and הביא hevi' "bring; put in" are both so inextricably linked with the idea of motion across borders that the root could not appear in the Hitpa`el, where Firstness seems to reign and the borders of the agent/patient monopole are not breachable.
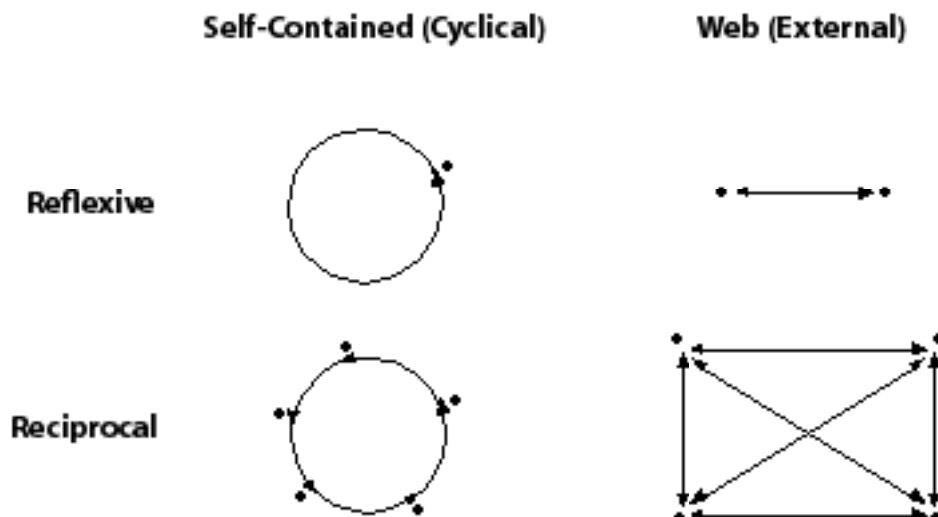
An interesting case is seen with בחר baxar "choose; elect," ביחר bixer "prefer," הבחיר hivxir "select." If Hitpa`el were strictly a reflexive or reciprocal verb pattern, we would expect to be able to use it to choose ourselves (above others), prefer ourselves (to those less capable), or select ourselves (for some project). Yet there is no Hitpa`el form attested for the root בחר baxar. In accordance with the theory that Firstness above all is important, the Hif`il must not be able to split an individual so clearly into parts that it can be singled out for some honor (preference or

selection). In the above discussion of פגע paga`, the meanings "meet, offend, feel hurt, inter-
cede," etc. may therefore be ineligible for the Hitpa`el meaning not because they logically make
little sense, but rather because they presuppose the same splitting of an individual into two parts
because one part needs to be able to act on the other and thus calls attention to itself as distinct.

Another example where we would expect a reflexive Hif`il but no form exists is with Pa`al
טען ta`an "load; claim; argue," Pi`el טיען ti`en "pierce; plead," and Hif`il הטעין hit`in "load; bur-
den." Why would one not be able to use these reflexively in a hypothetical Hitpa`el form, result-
ing in such meanings as "argue with oneself," "pierce oneself" (with some physical instrument or
with anguish or remorse), or "load oneself" (with baggage or commitments)? Because none of
those meanings is a self-contained event, each emphasizes the opposition (Secondness) against
the agent, and thus seems to violates the spirit of the Hitpa`el pattern.

This can be seen by comparing the web of interactions between individuals as such a
reciprocal/reflexive would call for vis-à-vis the closed, circular relationship between barely dis-
tinguishable parts of one whole:

Self-Contained Parts vs. External Individual Relationships

Conclusion

We have shown that foreign concepts of meaning in Hebrew verb patterns are overly simplistic and fail to provide any predictive power, remaining only vague notions creating as many exceptions as rules. Peirce's categories of Firstness, Secondness, and Thirdness have proven useful in looking at universal characteristics at the heart of the verb patterns because the categories allow Hebrew to speak for itself and not be interpreted through the lens of our experience with other languages.

By examining a number of Hitpa`el verbs we have seen that the binyan manifests an overwhelming amount of Firstness with a deemphasized but irreducible presence of Secondness in the background. Thirdness does not appear to be a component in any significant degree. While this knowledge would not allow us to predict exactly what a Hitpa`el form would mean given knowledge of its siblings in the other binyanim, it certainly brings us much closer than the ideas of reflexivity and reciprocity alone did.

Further profitable study could be made of the character of the other binyanim and the relative degrees of Firstness, Secondness, and Thirdness they exhibit. Such an investigation would likely eventually reveal less obvious relationships between the binyanim themselves and possibly connections to other derivational features of the Hebrew language.

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