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A Grammatical Tribute to Professor Stephen A. Kaufman

edited by
Hélène M. Dallaire, Benjamin J. Noonan,
and Jennifer E. Noonan

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The Binyanim *(Verbal Stems)*

Steven W. Boyd
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Introduction

The *binyanim*, which braid morphology, semantics, and syntax together, have generally been understood either as transformational schema in which each root neatly undergoes a specific semantic transformation depending on the stem or as haphazard schema in which the meaning of a stem is entirely dependent on usage and translation possibilities. I endeavor to adopt a middle ground in this chapter. First, I discuss the morphology of the *binyanim*, comparing their forms with the various verbal stems in the other Semitic languages. Then, in the next section, I present a theoretical linguistic model by which to analyze them, and I apply it to Biblical Hebrew.[1] After this, I summarize their expected functions. Finally, in the bulk of the study, I look at examples of roots that occur in the various *binyanim*, thereby testing how well these functions interact with actual usage subjected to the linguistic analysis.

Morphology of the Verbal Stems

The Verbal Stems in the Semitic Languages

Every Semitic verb is an interlacing of three groupings, each comprising discontiguous morphemes, which determine the three facets of a verb: the root[2] (the

Author's note: It is a great pleasure to honor my adviser and mentor at Hebrew Union College–Jewish Institute of Religion, Dr. Stephen A. Kaufman. His total command of the Semitic languages, his innate sense of how language works in general, his unwavering practice of a text-based approach, his active contribution to scholarship in his field, and the high standards he set for his students made him an ideal professor, adviser, and mentor.

1. "We [Semitists and Hebraists] have much to learn from and much to offer to the *field of linguistics at large*" (Stephen A. Kaufman, "Semitics: Directions and Re-Directions," in *The Study of the Ancient Near East in the Twenty-First Century: The William Foxwell Albright Centennial Conference* [ed. Jerrold S. Cooper and Glenn M. Schwartz; Winona Lake, IN: Eisenbrauns, 1996] 279).

2. A verbal root may be defined as a discontiguous morpheme of usually three consonants common to a set of verb forms with similar or identical meanings. For example, כֹּתֵב 'writer';

lexical facet); the sets of prefixes and suffixes (the grammatical facet; i.e., person, gender, number, tense, aspect, etc); and the preformatives and vocalic structure (the semantic and syntactic facet).

The *binyanim* (verbal stems) may be described as morpho-semantic-syntactic transformations of a Semitic root, of which the seven most common for regular verbs in Biblical Hebrew are Qal, Niphal, Piel, Pual, Hithpael, Hiphil, and Hophal. These correspond to the more general designations of *G*, *N*, *D*, *Dp*, *tD*, *C*, and *Cp*.[3] As Table 1 (p. 87) demonstrates, in the other Semitic languages, additional stems are attested that are rare or even non-existent in Hebrew (e.g., *Gt*, *Ct*, and the *tan* augment found in Akkadian and the *L*-stem with a long vowel after the first root consonant in Arabic).[4]

The Verbal Stems in Biblical Hebrew[5]

Hebrew has four semanto-syntactic verb types (active transitive, active intransitive, stative transitive, and stative intransitive), which are broadly distinguished morphologically, semantically, and syntactically.

Morphologically, stems are marked by particular vowel classes in specific sequences, by syllabic structure, and, in some cases, by consonantal modification (i.e., affixation of augments to the root and gemination). Hebrew has three vowel classes (*a*, *i*, and *u*) as well as the reduced vowel *šewa* (which also marks the end of a syllable). The sequences, furthermore, comprise three vowel positions: (1) the *prefix/preformative vowel* under the prefix or preformative; (2) the *stem vowel* under R_1; (3) and the *theme vowel* under R_2. (See Table 2, p. 88.)

Semantically and syntactically speaking, Active transitive verbs, such as שׁבר 'to break', usually represent a dynamic event in which the grammatical subject either affects or effects a person or thing (syntactically, the direct object [DO]).[6]

כָּתוּב 'written'; and יִכְתֹּב 'he writes, etc.' all have the same sequence of the three consonants כתב, designated as $R_3R_2R_1$, and all have something to do with "writing." A Semitic verb, then, is a combination of a root and a pattern, which comprises augments, vowels, etc., which determine, for want of a better word, its grammatical function, while preserving its essential meaning.

3. *G* = *Grundstamm* ('Ground Stem'), *D* = *Doppelstamm* ('Doubling Stem'), and *C* = *Causativstamm* ('Causative Stem'); *p* indicates a passive stem marked by an internal vowel, and *t* indicates a *t*-augmented (whether as a preformative or an infix) stem.

4. Notable in Biblical Hebrew are the usage of ablaut passives and the general absence of *t*-infixes. The former may be a Central Semitic development in light of the observation that such forms do not occur in East Semitic (Holger Gzella, "Voice in Biblical Hebrew against its Semitic Background," *Or* 78 [2009] 292–325). The latter, in part resulting from the former, contrasts with Aramaic as well as earlier Northwest Semitic (i.e., Ugaritic), which makes significant use of *t*-infixes. Also noteworthy is the *Gt* for לחם in the Mesha Stele (*KAI* 181:11) but Niphal for this root in Hebrew.

5. Cf. Barak Dan, "*Binyanim*: Biblical Hebrew," in *Encyclopedia of Hebrew Language and Linguistics* (ed. Geoffrey Khan; 4 vols.; Leiden: Brill, 2013) 1:354–62.

6. Semantically, transitivity comprises a nexus of argument structure, situation aspect, and semantic role structure (Gzella, "Voice in Biblical Hebrew," 319). Cf. Paul J. Hopper and

Table 1. Inventory of the Most Common Stems in the Semitic Languages[a]

	Hebrew	*Akkadian*[b]	*Ugaritic*[c]	*Aramaic*[d]	*Arabic*[e]	*Ethiopic (Geʿez)*[f]
G	Qal	G	G	Pᵃal	I	I, 1
Gp	Qal passive[g]	—	Gp	Pᵃil	—	—
G-L	—	—	—	—	III	I, 3
Gt	—[h]	Gt	Gt	Hithpᵃel	VIII	III, 1
tG-L	—	—	—	—	VI	III, 3
N	Niphal	N	N	—[i]	VII	—[j]
D	Piel	D	D	Pael	II	I, 2
Dp	Pual	—	Dp	Pual	—	—
D-L	Polel/Poel[k]	—	—	—	—	—
D-L(p)	Polal/Poal[l]	—	—	—	—	—
tD	Hithpael	Dt	Dt	Hithpaal	V	III, 2
C[m]	Hiphil	Š	Š	Haphel[n]	IV	II, 1
Cp	Hophal	—	Šp	Huphal	—	—
Ct	Hishtaphel[o]	Št	Št	Hithaphal	X	IV, 1

a. This table is adapted from the table in Gotthelf Bergsträsser, *Introduction to the Semitic Languages: Text Specimens and Grammatical Sketches* (trans. Peter T. Daniels; Winona Lake, IN: Eisenbrauns, 1983) 225. Stems well-attested in only one language other than Hebrew (e.g., the *tan* stem of Akkadian) are not included in the table. On the stems' distribution and functions, see Gzella, "Voice in Biblical Hebrew against its Semitic Background," 292–325.

b. Wolfram von Soden, *Grundriss der akkadischen Grammatik* (3rd ed.; AnOr 33; Rome: Pontifical Biblical Institute, 1995) 139–54 (§§86–95).

c. Stanislav Segert, *A Basic Grammar of the Ugaritic Language with Selected Texts and Glossary* (Berkeley, CA: University of California Press, 1984) 55–56, 65–69.

d. Franz Rosenthal, *A Grammar of Biblical Aramaic* (7th ed.; PLO 5; Wiesbaden: Harrassowitz, 2006) 63–67.

e. Carl Paul Caspari, *A Grammar of the Arabic Language* (ed. William Wright, W. Robertson Smith, and Michael Jan de Goeje; trans. William Wright; 3rd ed.; 2 vols.; Cambridge: Cambridge University Press, 1896–98) 1:29 (§35). Only the ten most common stems are listed.

f. August Dillmann, *Ethiopic Grammar* (ed. Carl Bezold; trans. James A. Crichton; 2nd ed.; London: Williams & Norgate, 1907) 141 (§76).

g. The old Qal passive was eventually replaced by the Niphal because, as the former became otiose (no doubt because of its linguistically untenable resemblance to the Pual suffix conjugation and Hophal prefix conjugations), it pulled the essentially middle-voiced Niphal into the place it had occupied to express the passive, which is a classic example of the pull-chain model of linguistic change.

h. Attested for certain only as a tG-stem with פקד in Judg 20:17; 21:9 (Joshua Blau, *Phonology and Morphology of Biblical Hebrew* [LSAWS 2; Winona Lake, IN: Eisenbrauns, 2010] 218; contra Milton L. Boyle, Jr., *Infix* -t *Forms in Biblical Hebrew* [PhD diss., Boston University, 1969]).

i. Attested for certain only in the Tel Deir ʾAlla Plaster Texts (Randall Garr, *Dialect Geography of Syria-Palestine, 1000 B.C.E.* [Philadelphia, PA: University of Pennsylvania Press, 1985; reprinted, Winona Lake, IN: Eisenbrauns, 2004] 121).

j. The N-stem is not attested in triliteral roots but is attested for certain multi-literal roots (Dillmann, *Ethiopic Grammar*, 131, 164–65).

k. In hollow and geminate verbs in lieu of the Piel; for the former because there is no R_2 to double and for the latter because of frequent analogies between these irregular verb types.

l. In hollow and geminate verbs in lieu of the Pual: for the former, because there is no R_2 to double, and for the latter, because of frequent analogies between these irregular verb types.

m. *C* is the normal designation for the causative stem but is merely a semantic designation because its preformatives vary among *š*, *ʾ*, and *h*, depending on the Semitic language (*he* in Hebrew, *š* in Akkadian and Ugaritic, both *he* and *ʾalep* in Aramaic, and *ʾ* in Arabic and Ethiopic).

n. The Šaphel occurs in Biblical Aramaic as well (e.g., Dan 3:15, 17).

o. The Hishtaphel is attested in Biblical Hebrew only with the root חוה, which occurs 173× with the meaning 'to prostrate oneself' or 'to worship'.

Table 2. Consonantal Modifications, Syllable Count, and Vocalic Structure of the Biblical Hebrew Verbal Stems[a]

Stem		Consonantal Modification		Syllable Count	Vowel Class Sequence		
		Preformative	Gemination		Preformative-Prefix	Stem	Theme
Qal	*active transitive*	Ø	Ø	2 / 2	Ø / *i*	*a* / *šewa*	*a* / *u*
	active intransitive	Ø	Ø	2 / 2	Ø / *i*	*a* / *šewa*	*a* / *u*
	stative transitive	Ø	Ø	2 / 2	Ø / *i*[b]	*a* / *šewa*	*i* / *a*
	stative intransitive	Ø	Ø	2 / 2	Ø / *i*	*a* / *šewa*	*i* / *a* *u* / *a*
Qal Passive		Ø	Ø	2 / 2	Ø / *u*	*u* / *šewa*	*a* / *a*
Niphal		נ	Ø	2 / 3	*i* / *i*	*šewa* / *a*	*a* / *i*
Piel		Ø	R_2	2 / 3	Ø / *šewa*	*i* / *a*	*i* / *i*
Pual		Ø	R_2	2 / 3	Ø / *šewa*	*u* / *u*	*a* / *a*
Hithpael		ת	R_2	3 / 3	*šewa* / *šewa*[c]	*a* / *a*	*i* / *i*
Hiphil		ה	Ø	2 / 2	*i* / *a*	*šewa* / *šewa*	*i* / *i*
Hophal		ה	Ø	2 / 2	*u* / *u*	*šewa* / *šewa*	*a* / *a*

a. A forward slash (/) separates the data for the suffix and prefix conjugations, respectively. *a*-class vowels are represented as *a*, *i*-class vowels are represented as *i*, *u*-class vowels are represented as *u*, and *šewa* is represented as *šewa*.

b. With R_3 guttural verbs, the *i*-class theme vowel appears in pause (e.g., שָׁמַע in Judg 2:17).

c. This is a silent *šewa* under the preformative ת, which closes a syllable beginning with the prefix with *i*-class vowel.

Active intransitive verbs represent dynamic events as well but do not take a DO, such as verbs depicting motion (e.g., עלה 'to ascend').

In contrast, both stative transitive and stative intransitive verbs represent states, which are non-dynamic situations in which there is no action. Stative transitives are not only exemplified by verbs of perception (e.g., שמע 'to hear'), cognition (e.g., ידע 'to know'), and emotion (e.g., אהב 'to love'), but also by roots such as לבשׁ 'to be clothed', which, although morphologically marked as stative, can take a DO. Stative intransitive verbs, such as מלא 'to be full', depict a state proper.

Linguistic Model and Synthesis for Biblical Hebrew

Derived stems effect both semantic change and syntactic change. Consequently, the analysis below comprises both. Since the *binyanim* are semantic trans-

Sandra A. Thompson, "Transitivity in Grammar and Discourse," *Language* 56 [1980] 251–99.

formers that produce syntactic change, I first lay the groundwork for this semantic analysis. Then I suggest a synthesis for Biblical Hebrew.

Semantic and Syntactic Bases

The relevant clause-level semantic elements are arguments associated with a particular verb, the situation aspect of the verb, and the semantic role(s) of the referents of the argument(s).

Arguments

An argument is a nominal element of a clause that is connected to its predicate.[7] Core arguments are those elements most closely connected: the "privileged syntactic argument of a grammatical construction"[8] (PSA) (in traditional terminology, "grammatical subject") and the DO. A referent is the real world (or in the case of fictional texts, the text world) correspondence to specific argument(s). So, for example, in the sentence, *Al kicked the ball*, "Al" represents an eight-year-old boy; and "ball" represents the *ball* Al kicked. The number of arguments is dependent on how many arguments a verb requires and how many it permits. The verb "kick" requires one argument but permits two and usually has two. There are verbs, however, that require two arguments. For instance, "magnify" requires two: *Al magnified* needs a second argument (a DO) to complete it.

Situation Aspect

Situation aspect—also referred to as semantic or lexical aspect but distinct from "viewpoint aspect"[9] and *Aktionsart*[10]—is a study of the classification of verbs (or verb phrases) representing states and events (henceforth "situations") according to their temporal (or other) properties.[11] It will be convenient to frame our

7. Robert D. Van Valin, *Exploring the Syntax-Semantics Interface* (Cambridge: Cambridge University Press, 2005) 4–5.

8. Ibid., 94.

9. Viewpoint aspect refers to "different ways of viewing the internal temporal constituency of a situation" (Bernard Comrie, *Aspect: An Introduction to the Study of Verbal Aspect and Related Problems* [Cambridge Textbooks in Linguistics; Cambridge: Cambridge University Press, 1976] 16).

10. Although the term *Aktionsart* (meaning 'manner of action'), is often used interchangeably with situation aspect, strictly speaking, it does not refer to the same properties, in that the German term is a "lexicalization of various 'manners of action'" (Hana Filip, "Aspectual Class and *Aktionsart,*" in *Semantics: An International Handbook of Natural Language Meaning* [ed. Claudia Maienborn, Klaus von Heusinger, and Paul Porter; Handbücher zur Sprach- und Kommunikationswissenschaft 33; Berlin: de Gruyter Mouton, 2011] 2:1187). *Phasal aspect* appears to be a simplification of the original concept of *Aktionsart*, which looks at the beginning, middle, and end of a situation, referred as the initial, medial, and final phases, respectively. See Robert I. Binnick, "Aspect and Aspectuality," in *The Handbook of English Linguistics* (ed. Bas Aarts and April M. S. McMahon; Blackwell Handbooks in Linguistics; Oxford: Blackwell, 2006) 3.

11. Binnick, "Aspect and Aspectuality," 1. For this theory applied to the Semitic languages, see Stuart Creason, *Semantic Classes of Hebrew Verbs* (PhD diss., University of Chicago, 1995);

discussion of situation aspect around three questions. The first: do these classifications pertain to the *descriptions* of situations, or do they concern the *properties* of the situations themselves? Some linguists assert that they are ontological categories,[12] others that they are linguistic descriptions,[13] and still others are agnostic.[14] The most cogent analysis argues that they are semantic classifications of predicates.[15]

The second question: are the linguistic objects we are examining *verbal lexemes* only, or are they *verbal phrases* or even *whole sentences*? In fact, linguists have gradually but almost unanimously come to agree with David R. Dowty that they are "not a categorization of verbs, it is [they are] not a categorization of sentences, but rather of the propositions conveyed by utterances, given particular background assumptions by speaker and/or hearer about the nature of the situations under discussion."[16]

F. W. Dobbs-Allsopp, "Biblical Hebrew Statives and Situation Aspect," *JSS* 45 (2000) 21–53; Ernst Jenni, "Aktionsarten und Stammformen im Althebräischen: Das Pi'el im verbesserter Sicht," *ZAH* 13 (2000) 67–90; John Cook, "The Semantics of Verbal Pragmatics: Clarifying the Roles of *Wayyiqtol* and *Weqatal* in Biblical Hebrew Prose," *JSS* 49 (2004) 247–73; idem, *Time and the Biblical Hebrew Verb: The Expression of Tense*, *Aspect*, *and Modality in Biblical Hebrew* (LSAWS 9; Winona Lake, IN: Eisenbrauns, 2012) 19–25; Jan Joosten, *The Verbal System of Biblical Hebrew: A New Synthesis Elaborated on the Basis of Classical Prose* (JBS 10; Jerusalem: Simor, 2012) 37; Kai Akagi, "The Verbal Tiller: Lexical Semantics of Verbs as a Factor in Sequentiality–Temporal Progression at the *Micro-Level*," in *Grappling with the Chronology of the Genesis Flood: Navigating the Flow of Time in Biblical Narrative* (ed. Steven W. Boyd and Andrew Snelling; Green Forest, AR: Master Books, 2014) 365–443.

12. E.g., Emmon Bach, "The Algebra of Events," *Linguistics & Philosophy* 9 (1986) 5–16; Terence Parsons, *Events in the Semantics of English: A Study in Subatomic Semantics* (Current Studies in Linguistics Series 19; Cambridge, MA: MIT Press, 199) 34.

13. E.g., Manfred Krifka, *Nominal Referenz und Zeitkonstitution: Zur Semantik von Massentermen*, *Individualtermen*, *Aspektklassen* (PhD diss., Ludwig-Maximilians-Universität, 1986); Hana Filip, *Aspect*, *Situation Types*, *and Noun Phrase Semantics* (PhD diss., University of California, Berkeley, 1993); Barbara H. Partee, "Some Remarks on Linguistic Uses of the Notion of 'Event,'" in *Events as Grammatical Objects: The Converging Perspectives of Lexical Semantics and Syntax* (ed. Carol Tenney and J. Pustejovsky; CSLI Lecture Notes 100; Stanford, CA: CSLI Publications, 2000) 483–95.

14. E.g., Kathleen Gill, "On the Metaphysical Distinction between Processes and Events," *Canadian Journal of Philosophy* 23 (1993) 365–84.

15. Any given situation can be described in more than one way (Filip, "Aspect and *Aktionsart*," 2:1190–91). For example, observing John running and winning a 5000-meter race, we could say *John ran* (an atelic Activity) or *John ran 5000 meters* (a telic Accomplishment) or *John won the race* (a telic Achievement). Filip continues: "There is nothing in the nature of the world itself that would force us to use one description and not the other[s]" ("Aspect and *Aktionsart*," 2:1191). In the discussion below, therefore, referring to situations is actually referring to the predicates that describe them.

16. David R. Dowty, *Word Meaning and Montague Grammar: The Semantics of Verbs and Times in Generative Semantics and in Montague's PTQ* (Synthese Language Library 7; Boston: Reidel, 1979) 185; H. J. Verkuyl, *On the Compositional Nature of the Aspects* (Foundations of Language: Supplementary Series 15; Dordrecht: Reidel, 1972).

And the third question is: what are the classes of situations, and what components determine them? I maintain that each situation class has three temporal components: dynamicity, telicity, and durativity.[17] Dynamicity asks whether the situation represented by the verb involves action (+) or a state (–). Telicity asks whether the situation has a natural end point (+) or not (–). Durativity asks whether the situation occurs over an interval of time (+) or at an instant (–).[18] These three temporal components yield seven situation aspect classes (three states and four events).[19] Examples of these seven classes analyzed in terms of these components are in Table 3 (p. 92).

17. Binnick, "Aspect and Aspectuality," 1–20; Filip, "Aspect and *Aktionsart*," 2:1186–1217; Akagi, "Verbal Tiller," 365–443.

18. Although disagreement exists, the inclusion of durativity as a component is supported by general linguists (e.g., Zeno Vendler, "Verbs and Times," *Philosophical Review* 66 [1957] 144; idem, *Linguistics in Philosophy* [Ithaca, NY: Cornell University Press, 1967] 97–121; Dowty, *Word Meaning and Montague Grammar*, passim; Carlota S. Smith *The Parameter of Aspect* [2nd ed.; Studies in Linguistics and Philosophy 43; Dordrecht: Kluwer Academic, 1997] 19, 41–42; Binnick, "Aspect and Aspectuality," 1–20; Filip, "Aspect and *Aktionsart*," 2:1186–1217) as well as Hebraists (Joosten, *The Verbal System*, 37; Akagi, "Verbal Tiller," 365–443). Cook argues that durativity is not a component (Cook, *Time and the Biblical Hebrew Verb*, 35; cf. Susan D. Rothstein, *Structuring Events: A Study in the Semantics of Lexical Aspect* [Explorations in Semantics; Oxford: Blackwell, 2004] 28–29), but several reasons suggest that it is. First, world knowledge informs us that Achievements such as *John won the race* occur at an instant of time, whereas Accomplishments such as *John built a house* take place over an interval of time. Second, the role of intervals and instances distinguishes states. Atelic states are those that are true at any moment of time and are not interval dependent; Transitory states hold only over a certain period of time (Filip, "Aspect and *Aktionsart*," 2:1197). Third, Priorian tense logic, which has been an important technique for studying situation aspect since Montague's *PTQ* in 1973, can only be applied to a moment of time with State predicates such as *The sky is blue* or *Max is angry*; it makes no sense to talk about truth values at a moment of time for an action which cannot be true until it is completed. Hence the current formulation of tense logic has the interval as its basic unit, from which moments can be derived (Filip, "Aspect and *Aktionsart*," 2:1194–96; Johannes van Benthem, "Tense Logic and Time," *Notre Dame Journal of Formal Logic* 25 [1984] 1–16). Finally, space-time analogies support the distinction with mass nouns such as water, analogous to States and Activities (Alexander P. D. Mourelatos, "Events, Processes, and States," *Linguistics and Philosophy* [1978] 415–34), with both being uncountable but divisible into subintervals in which they are the same (which is referred to as the "subinterval property"). During a subinterval of the period when it can be said the sky is blue, the sky is blue; similarly, a subinterval of the event represented by the Activity, *John ran*, can still be described as *John ran*. Count nouns are countable, but their analogue, Achievements and Accomplishments, lack the subinterval property.

Cook supports Rothstein's resistance to adding a third component because that would lead to there being eight semantic aspects (Cook, *Time and the Biblical Hebrew Verb*, 20, 24). However, if the data indicate that there are more than four situation aspects—which many argue is the case—then a third component is needed. Rothstein is certainly not reasoning that, because her model has four, there cannot be eight.

19. Given that our model has three temporal components, this could potentially represent eight different situation aspect classes. Nevertheless, one of these cannot occur; the combination [– dynamic][– telic][– durative] represents an endless punctiliar state, which is an impossibility.

Table 3. Situation Aspect Classes[a]

States	Atelic State	[- Dynamic] [- Telic] [+ Durative]
		(1) *The playground was small.*
	Point State	[- Dynamic] [+ Telic] [- Durative]
		(2) *It is 10 o'clock.*
	Transitory State	[- Dynamic] [+ Telic] [+ Durative]
		(3) *Bob's stew was piping hot.*
Events	Semelfactive	[+ Dynamic] [- Telic] [- Durative]
		(4) *Al coughed.*
	Activity	[+ Dynamic] [- Telic] [+ Durative]
		(5) *Carl walked briskly.*
	Accomplishment	[+ Dynamic] [+ Telic] [+ Durative]
		(6) *The boys built a fort.*
	Achievement	[+ Dynamic] [+ Telic] [- Durative]
		(7) *Bob dropped the ball.*

a. Adapted from fig. 5 of Steven W. Boyd, "Tacking with the Text: The Interaction of Text, Event, and Time at the *Macro-level*," in *Grappling with the Chronology of the Genesis Flood* (ed. Steven W. Boyd and Andrew Snelling; Green Forest, AR: Master Books, 2014), 588.

States

States are – dynamic (static); that is, *no change* takes place in the situation. Filip distinguishes states from non-states as follows: "making it possible for a sentence to hold true at single moments of time is the key temporal property of state predicates setting them apart from all non-states. The latter entail a change of state and hence must be evaluated at intervals *larger than a single moment of time*."[20] Besides obvious situations in which a person or object is described, cognition and emotion are also state-like, although the verbs representing them usually are two-argument verbs (having a DO). Such situations semantically differ from those of other types of transitive verbs.

20. "Aspect and *Aktionsart*," 2:1195. She cogently reasons that, with Activities, the intervals of evaluation must be sufficiently large; that they are analogous to heterogeneous mass nouns like *fruitcake*, with pieces of fruit embedded in a homogeneous dough. These nouns and these verbs are therefore divisible only down to minimal proper parts. For example, to ascertain if someone is walking, rather than just standing with one leg back and the other forward, would require a few seconds to confirm that there is movement of the legs.

There are three states: Atelic (a property), Point (a state lasting but an instant), and Transitory (a telic state).[21] An example of an Atelic state is Sentence 1 above: *The playground was small*. The playground's smallness has no obvious endpoint (– telic), but the situation is + durative, because, all other things being equal, the smallness will continue. On the other hand, Sentence 2, *It is 10 o'clock*, is a classic example of a Point state because it is not 10 o'clock even one yoqto second (ys [10^{-24} seconds]) before the referred time, nor is it any longer 10 o'clock just 1 ys after that time. Finally, a Transitory state is exhibited in Sentence 3: *Bob's stew was piping hot*. The state of the stew is obviously + telic (because it will eventually cool) as well as + durative, because the scalding nature of the stew will last for a while.

Events

The next four situation aspect classes are + dynamic, in that they represent situations in which there *is change*. This could be a change of quality, position, posture, etc. Such situations are called events.

The first class of events is Semelfactive, which is + dynamic, – telic, and – durative. It is represented by Sentence 4: *Al coughed*. According to Leonard Talmy, Semelfactives are "full-cycle resettable" verbs, such as *knock*, *kick*, *slap*, *tap*, *blink*, *flash*, all of which describe situations that end with the return to the initial state.[22] These verbs entail a kind of definite change of state. Thus, they seem to be telic.[23] But at the same time, because they are resettable, they entail no resultant state or activity; that is, they are atelic.[24] This equivocality in itself indicates that, despite disagreement, Semelfactives are indeed a different situation aspect class, which represents "the simplest type of event, consisting only in the occurrence."[25]

21. William Croft, "Aspectual and Causal Structure in Event Representations," in *Routes to Language: Studies in Honor of Melissa Bowerman* (ed. Virginia C. Mueller-Gathercole; New York: Psychology Press, 2009) 139–66. Cook disputes the existence of a Transitory state alongside an Atelic one (*Time and the Hebrew Verb*, 24). However, Reichenbachian event time supplies the implicit temporal argument for a Transitory state (Theodore Fernald, *Predicates and Temporal Arguments* [Oxford: Oxford University Press, 2000] 135; cf. Hans Reichenbach, *Elements of Symbolic Logic* [New York: Macmillan, 1947]). Furthermore, Fernald adduces twelve cogent grammatical phenomena that evince the distinction between Atelic and Transitory states (*Predicates and Temporal Arguments*, 12–29, 81–86).

22. Leonard Talmy, "Lexicalization Patterns: Semantic Structure in Lexical Forms," in *Grammatical Categories and the Lexicon*, vol. 3 of *Language Typology and Syntactic Description* (ed. Timothy Shopen; Cambridge: Cambridge University Press, 1985) 77–78.

23. Mourelatos considers them to be + telic ("Events, Processes, and States," 415–34). He offers *hit* as a parade example. But *hit* is different from the other verbs listed above. As I argue below, *hit* can effect a change on the DO. In *John hit the ball*, the ball is affected by *hit*. But in *John hit the ground* it is doubtful that the ground is affected by John hitting it.

24. Smith, *Parameter of Aspect*, 29.

25. Ibid.

The event class Activity is manifested in Sentence 5, *Carl walked briskly*, in that it depicts continuing action without an endpoint, that is, + dynamic – telic + durative. If, however, we add "to his house" to this, producing *Carl walked briskly to his house*, the event has an endpoint and is considered an Accomplishment, which is + dynamic + telic + durative. This class is represented by Sentence 6: *The boys built a fort*. This leaves the final event class, Achievement, seen in Sentence 7: *Bob dropped the ball.* Achievements evince an instantaneous change of state and are therefore + dynamic + telic – durative.

Semantic Roles

The third element that potentially influences the transformations of the *binyanim* is the semantic roles (also called "thematic relations") of the arguments for a specific situation aspect class. The various possible semantic roles can be subsumed under the two macro-roles of Actor and Undergoer. Broadly speaking, the Actor is the affector or effector of an action or state, the experiencer of a stimulus, or the one who moves, etc.; whereas, the Undergoer represents that which is affected or effected, the recipient of something, or that which is moved, etc.[26] The thematic relations for the Actor and Undergoer can be described in more specific ways depending on the verb's aspect class and type (cf. fig. 1).[27] The PSA has a primary macro-role (either Actor or Undergoer or both) according to the verb type: for active transitives and intransitives, the PSA is an Actor; for stative transitives, it appears to be both Actor and Undergoer; and for stative intransitives, it is an Undergoer only.[28]

Stative versus active[29] and *transitive versus intransitive* are foundational oppositions in the Biblical Hebrew verbal system. Their coupling determines a verb's macro-roles and semantic roles. I must therefore group the various situation aspect classes accordingly.

Atelic, Point, and Transitory states fall into the category of stative verbs, both transitive and intransitive. With stative transitive verbs, the PSA is affected by the DO with the role of Actor; whereas, stative intransitive verbs have no second core argument.

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26. Van Valin, *Exploring the Syntax-Semantics Interface*, 53.

27. Ibid., 54–55, 63–67. The quintessential Actor is an Agent, which ideally is a "willful, controlling, instigating participant in a state of affairs" as the PSA of active verbs and the object of a preposition with passive verbs (ibid., 55). In addition, the prototypical Agent is semantically unaffected by his action—usually upon the quintessential Undergoer, Patient. The latter is a strongly affected recipient of an action that has undergone a change of state. In an active grammatical construction the DO has the semantic role of Patient, but in a passive construction the PSA will have this role.

28. Ibid., 54–55, 94–107.

29. "The dichotomy between active and stative verbs in Semitic . . . is fundamental to the system" (Kaufman, "Semitics: Directions and Re-Directions," 282).

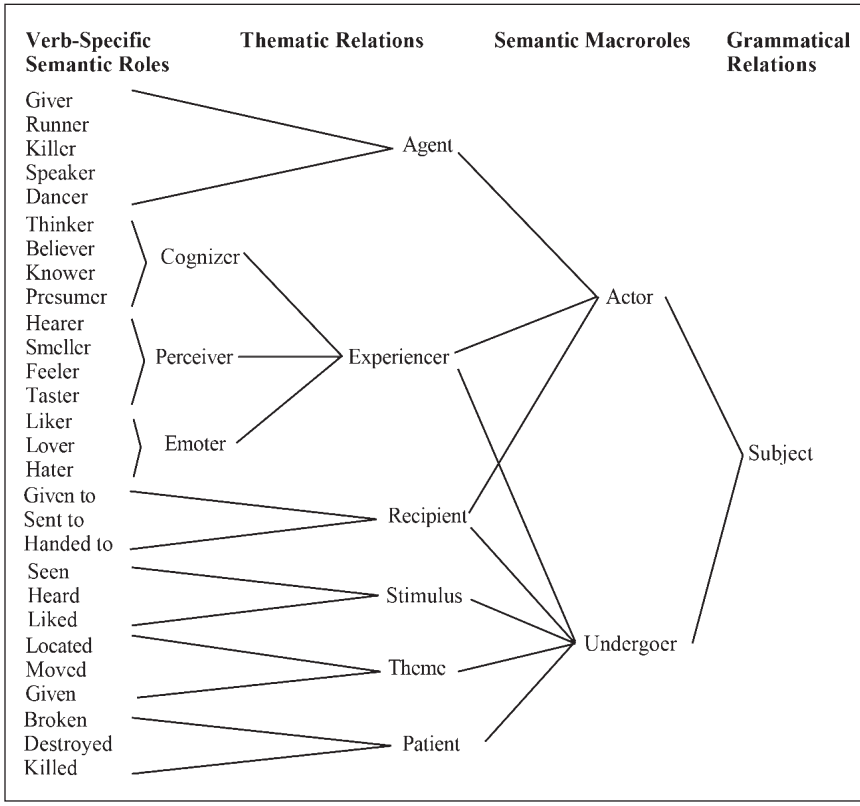

Figure 1. Semantic Roles.[30]

On the other hand, Semelfactives, Activities, Accomplishments, and Achievements fall into the category of active verbs, both transitive and intransitive. With active transitive verbs the Actor is an Agent and the Undergoer (syntactically expressed by the DO) is affected or effected; whereas, active intransitive verbs do not have a second core argument and (thus) the Actor is not an Agent.

Synthesis: Application of the Model to Biblical Hebrew

Table 4 synthesizes the above presentation of the linguistic model by illustrating how it manifests itself in Biblical Hebrew, furnishing examples of each verb

30. Adapted from Robert D. Van Valin, "Semantic Macroroles in Role and Reference Grammar," in *Semantische Rollen* (ed. Rolf Kailuweit and Martin Hummel; Tübinger Beiträge zur Linguistik 472; Tübingen: Narr, 2004) 64.

Table 4. Situation Aspect, Argument Structure, and Semantic Roles by Verb Type in Biblical Hebrew

Verb Type Situation Aspect Class	*Componential Analysis*			*Number of Core Arguments*	*Semantic Roles of Core Arguments*	
	Dynamic	*Telic*	*Durative*		*First*	*Second*
Stative Transitive						
Atelic State	-	-	+	2	Actor (and Undergoer)	Undergoer
Examples: שׂנא, שׁמע, ראה, ידע, אהב						
Stative Intransitive						
Atelic State	-	-	+	1	Undergoer	None
Examples:[a] קטן, צעיר, כבד, זקן, גדל						
Point State	-	+	-	1	None[b]	Undergoer
Examples: None[c]						
Transitory State	-	+	+	1	Undergoer	None
Examples: קדשׁ, מלא, יבשׁ, טמא, טהר, חלל, חלה, גבר, גבה, בושׁ						
Active Transitive						
Semelfactive	+	-	-	2	Actor	Undergoer
Examples: מחא, עצה, קרץ, שׁפק, תקע						
Activity	+	-	+	2	Actor	Undergoer
Examples: שׁיר, ספר, כתב, אמר, אכל						
Accomplishment	+	+	+	2	Actor	Undergoer
Examples: עשׂה, ילד, ברא, בנה						
Achievement	+	+	-	2	Actor	Undergoer
Examples: שׁבר, לקח, נתן, מצא, זכר						
Active Intransitive						
Semelfactive	+	-	-	1	Actor	None
Examples: זרר, דפק, בעט						
Activity	+	-	+	1	Actor	None
Examples: רוץ, עלה, נסע, ירד, הלך						
Accomplishment					Actor	None
Examples: רוץ, עלה, נסע, ירד, הלך						
Achievement	+	+	-	1	Actor	None
Examples: קום, מות, ישׁן, יצא, בוא						

a. It is possible that all Qal passive participles belong to this category.

b. The "it" in *It is 10:00 o'clock* is a dummy subject without semantic content.

c. There do not seem to be any examples of a point state in the Hebrew Bible. Nevertheless, the prescription of certain ceremonies, etc., to happen at certain times suggests that such a state would have existed.

type—active transitive, active intransitive, stative transitive, and stative intransitive—and indicating the situation aspect class, componential analysis, number of core arguments, and macro-roles of each.

Interaction of the *Binyanim* with the Semantic Elements

We are now poised to assess how the *binyanim* interact with the semantic elements as well as how they affect the individual lexemes. We might expect that, given the distinct morphology of the stems, their semantic functions should be distinct and fall into fairly clear-cut categories with little if any overlap. However, it must be asked whether these semantic transformations are indeed regular and predictable, depending mainly on the stem, or whether they must be determined root by root. Therefore, in this section I present a systematic understanding of the functions of the four main derived stems—the Niphal, Piel, Hithpael, and Hiphil[31]—in terms of the active-stative dichotomy. Then, I test that systematic understanding via a random data sample of various roots.

The Functions of the Binyanim

Niphal

The Niphal is an attritting stem or de-transitivizer. For transitive verbs, the Niphal removes a core argument from the Qal and makes it intransitive; for intransitive verbs that already have only one core argument and cannot be further de-transitivized, the Niphal changes the semantic role of the argument and the verb's situation aspect.[32] Accordingly, the Niphal's attested diatheses (how referents map with semantic roles and core arguments—that is, syntactic functions—for particular verb forms) are medio-passive.[33] More precisely, the Niphal conveys entrance into the state connected with the root, which differs depending on the verbal type of the root.

For stative intransitive verbs, the state is the same as the state expressed by the root. Thus, for these verbs, the Niphal is *inchoative*. For example, the Niphal of מלא (in the Qal 'to be full' [i.e., in the state of being full]) is 'to become full' or 'to fill up' (to enter the state of being full):[34]

31. The Pual and the Hophal as passives of the Piel and Hiphil, respectively, present no problems for the most part and therefore do not need to be treated separately.

32. Gzella, "Voice in Biblical Hebrew," 319.

33. Steven W. Boyd, *A Synchronic Analysis of the Medio-Passive-Reflexive in Biblical Hebrew* (PhD diss., Hebrew Union College–Jewish Institute of Religion, 1993). It is noteworthy that whereas English uses an active verb form for both active and inchoative diatheses but a passive verb for passive diathesis, Biblical Hebrew uses Qal for active diathesis only but Niphal for both inchoative and passive diatheses.

34. This can be further clarified by looking at this root in other stems: in the Piel 'fill' (put into the state); in the Pual (participle) 'be filled' (placed into the state); and in the Hithpael 'fill

(1) וַתִּמָּלֵא הָאָרֶץ אֶת־הַמָּיִם *The land **filled up** with water.* (2 Kgs 3:20)

For stative transitive verbs, the referent represented by the PSA enters into the state connected with the verb in a different way, with its Qal passive participle, such that the referent/PSA moves from a condition of being affected, in the Qal, to one in which it is not, in the Niphal:

(2) וַיֵּרָא אֵלָיו יְהוָה בְּאֵלֹנֵי מַמְרֵא *YHWH **appeared** to him at the oaks of Mamre.* (Gen 18:1)

In the above example, the Niphal of ראה means 'to appear', expressing the idea of becoming רָאוּי 'seen', having not been seen previously.[35]

For active roots, which are frequently translated as passives in the Niphal, the referent/PSA enters into the state connected with the Qal passive participle of an active transitive verb, such that it moves from being the affecter or effecter (Qal) to that of being affected or effected (Niphal). In sum, the Niphal of active roots, both transitive and intransitive, is *inceptive*:

(3) וַתִּפָּקַחְנָה עֵינֵי שְׁנֵיהֶם *Then the eyes of the two of them **opened up**.* (Gen 3:7)

(4) וַיִּקָּבֵר בְּקָמוֹן *And he* [*Jair, the judge*] ***was buried** in Qamon.* (Judg 10:5)

In Example 3, the man and woman's eyes entered into a state of being פָּקוּחַ 'opened', a state their eyes were not in prior to their eating from the tree. In Example 4, Jair entered into a state of being קָבוּר 'buried', which is connected with the action קבר 'to bury'.

Quite instructive for the understanding of the Niphal is the record of the incident of Balaam's female donkey crushing her master's foot against a wall:

(5) וַתִּלָּחֵץ אֶל־הַקִּיר וַתִּלְחַץ אֶת־רֶגֶל בִּלְעָם אֶל־הַקִּיר *She* [*the female donkey*] ***pressed*** [Niphal] *against the wall and **pressed*** [Qal] *Balaam's foot against the wall.* (Num 22:25)

This example is particularly informative because the Niphal and the Qal of the same root (לחץ) occur here, and both clearly refer to the same event. Although the female donkey is the PSA of both clauses, in a sense the text looks at the same incident from different perspectives: hers and his. From hers, she moved as close as

oneself' (place oneself into the state).

35. Stephen A. Kaufman, review of *The Function of the Niphʿal in Biblical Hebrew in Relationship to Other Passive-Reflexive Verbal Stems and to the Puʿal and Hophʿal in Particular*, by P. A. Siebesma, *CBQ* 56 (1994) 572–73.

she possibly could to the wall to maneuver around the menacing Angel of Yhwh. From his, one of his dangling feet was crushed and pressed against the wall. The Niphal of לחץ in this verse is used to represent physical motion: to move next to something or squeeze against something—in this case, the wall. The Niphal is not regularly employed for physical motion; rather, the PSA-experiencer referent usually moves from one state to another.[36] Thus, the Niphal is usually an Achievement. But, occasionally—as in this case—it can refer to physical motion, as with an active intransitive Qal. Thus, the Niphal can be used to convey what are best described as "gradient" situations of path, of attribute, or of extent, in which a PSA with semantic role Mover or Theme changes its location, one of its properties, or its extent, respectively.[37] If it is a multi-point gradient situation—such as in this case of the female donkey—the Niphal is an Accomplishment. Notwithstanding, the Qal can represent these situations as well.[38]

Very often, the Niphal is *said* to represent *reflexive* action.[39] Reflexive diathesis emphasizes the identity of the doer of the action (Agent) with the receiver of the action (Patient). Thus, reflexive diathesis strictly obtains only where one referent demonstrably has the semantic roles of both Agent and Patient. But this is rarely—if ever—the case with the Niphal.[40] Only on two occasions might it possibly be so:

(6) וְלֹא יִקָּרַח לָהֶם *He must not **become bald** for them.* (Jer 16:6)

(7) כָּל־עֹמְסֶיהָ שָׂרוֹט יִשָּׂרֵטוּ *All who move it will surely **become slashed**.* (Zech 12:3)

36. E.g., twice from closed to open (Gen 7:11) and twice from open to closed (8:2).

37. *The golf ball rolled into the cup*, *the soup cooled*, and *the crack widened* evince these three types of multi-point gradient verbs. For discussion, see Malka Rappaport Hovav, "Lexicalized Meaning and the Internal Temporal Structure of Events," in *Theoretical and Crosslinguistic Approaches to the Semantics of Aspect* (ed. Susan Deborah Rothstein; Amsterdam: Benjamins, 2008) 13–42.

38. On at least one occasion, the signification of the Niphal does not appear to perceptively differ from that of the Qal. In Gen 33:7, which reads וַתִּגַּשׁ גַּם־לֵאָה וִילָדֶיהָ וַיִּשְׁתַּחֲווּ וְאַחַר נִגַּשׁ יוֹסֵף וְרָחֵל וַיִּשְׁתַּחֲווּ, the approach of Leah and her children to meet Esau employs the Qal of נגשׁ, whereas the Niphal of נגשׁ expresses the approach of Joseph and Rachel, arguably with the same meaning. This root is already a path gradient verb in the Qal, with the same semantic role, Mover, as the Niphal. Why the suppletion? I suspect that here it is used as an iconic device to highlight the separation between the sisters and their families by using different word order, different verb forms, and different stems, and, therefore, adumbrate the events which will be related in the subsequent chapters (i.e., the death of Rachel, the rise to prominence of Joseph, and the schism that develops between him and his brothers). For a different analysis, see Gzella "Voice in Biblical Hebrew," 314.

39. This view is most recently espoused by Dan, "*Binyanim*: Biblical Hebrew," 1:358.

40. Boyd, *Synchronic Analysis of the Medio-Passive-Reflexive*; Gzella, "Voice in Biblical Hebrew," 305–6; Kaufman, review of Siebesma, 572–73.

Nevertheless, both of these admit the better alternative analysis—namely, that they are middle-passive[41]—because the emphasis is on change of state, from non-baldness to baldness and not being slashed to being slashed, respectively, not on the referent/PSA having done something to himself (making himself bald or slashing himself). That is, the emphasis is not on the actor or even on the action but on the change. Moreover, it is not clear that the referent/PSA is the Agent at all. If he were, the Hithpael would be used. In fact, the Niphal—in contrast to the Hithpael—preserves the anonymity of the Agent.

Finally, very rarely, the Niphal is *denominative* (i.e., the verb is derived from a noun).[42] It seems that, at least in some cases, the Niphal was utilized rather than the Piel to create a denominative verb because of the inchoative nature of the noun (e.g., the Niphal of **נבא** 'to prophesy' from **נָבִיא** 'prophet').[43] The Piel expresses a change in state, but it does not highlight a change in state as the Niphal does, making the Niphal a more appropriate stem for creating nouns with an inchoative nature.

Piel

The Piel for most roots has three functions, which usually depend on the verb type of the Qal of the root. These three functions are unrelated, notwithstanding attempts to connect them.[44]

41. For a complete discussion of the Niphals of these two roots, see Boyd, *Synchronic Analysis of the Medio-Passive Reflexive*, 136–37. I disagree with S. R. Driver's understanding of the Niphal of **חנק** in 2 Sam 17:23 as reflexive, but he did properly understand the previous clause as, "he gave an order to his household" (cf. Gzella, "Voice in Biblical Hebrew," 305 n. 32). For a detailed discussion of why the usual translation of this verse "[Ahithophel] hanged himself" is untenable, see my arguments in *Synchronic Analysis of the Medio-Passive-Reflexive*, 137–40.

42. The Niphal functions denominatively less often than Piel and Hiphil.

43. The noun **נָבִיא** seems to be derived from the root **נבא** 'to be named (or called)' (cf. Akkadian *nabû*). A person was not innately a prophet; rather, he was named and called by God to that office and therefore *became* (i.e., inchoative) a prophet. Perhaps it was this inchoative nature of the noun that made the inchoative Niphal conducive to expressing the action of the office—that is, prophesying.

44. The function of the D-stem is "one of the most recalcitrant problems of Semitic linguistics. . . . Propositions that one form can do only one thing are by no means fundamental to it [the verbal stem system]" (Kaufman, "Semitics: Directions and Re-Directions," 280, 282). In an attempt to connect the functions of active and stative verbs in the Piel, Albrecht Goetze proposed that the Piel of active transitive verbs is resultative in that it places the verb's object into a state connected to the root ("So-Called Intensive of the Semitic Languages," *JAOS* 62 [1942] 1–8). In this, he is followed by others, such as Ernst Jenni (*Das hebräische Piʿel: Syntaktisch-semasiologische Untersuchung einer Verbalform im Alten Testament* [Zürich: EVZ, 1968]) and Bruce K. Waltke and Michael O'Connor (*IBHS* §24.1). However, each of these scholars merely claim this idea is valid without demonstrating it (Kaufman, "Semitics: Directions and Re-Directions," 281).

For stative intransitive (and transitive[45]) verbs, its function is *factitive*, putting someone or something into the state described by the root. For such verbs, the Piel is an accreting stem or transitivizer, adding a core argument and turning an intransitive construction into a transitive one:[46]

(8) וְאֶעֶשְׂךָ לְגוֹי גָּדוֹל וַאֲבָרֶכְךָ וַאֲגַדְּלָה שְׁמֶךָ
I will make you into a great nation, I will bless you, and I ***will make*** *your name* ***great****.* (Gen 12:2)

Although the Piel functions as a transitivizer for stative verbs, it does not function as such for active verbs. Rather, for active transitive and intransitive verbs its function is *pluralitive*—that is, it multiplies the verb's core arguments/referents or even the action itself:[47]

(9) וַיַּשְׁלֵךְ מִיָּדָיו אֶת־הַל�ֻּחֹת וַיְשַׁבֵּר אֹתָם תַּחַת הָהָר
He threw the tablets from his hands and ***shattered*** *them at the base of the mountain.* (Exod 32:19)

The nature of the multiplication might depend on whether the verb is atelic, mass-like (and/or its DO is a mass noun) or telic, or count-like (and/or its DO is a count noun). If a verb is mass-like (Activity or Atelic state) and/or its DO is a mass noun, the multiplication would be an extension or prolongation of the action.

From the perspective of a more traditional analysis, with active intransitive verbs pluralitive can only refer to the multiplication of the action itself, because they have no DO to be pluralized. But looking at this another way, these verbs, being Activities, are mass-like verbs. It would be expected therefore that the Piel of

45. Stative transitives in the Piel are extremely rare. See ידע in Job 38:12, discussed below.

46. The Piel with this function is connected to the Niphal as follows: the former places a person or object into a state; with the latter, the person or object enters into a state on his/her/its own. That the Niphal is somehow connected to a derived stem is at variance with the regnant idea that all derived stems are only connected to the ground stem (Gzella, "Voice in Biblical Hebrew," 294).

47. Joseph H. Greenberg, "The Semitic 'Intensive' as Verbal Plurality: A Study of Grammaticalization," in *Semitic Studies in Honor of Wolf Leslau on the Occasion of His Eighty-Fifth Birthday* (ed. Alan S. Kaye; 2 vols.; Wiesbaden: Harrassowitz, 1991) 1:577–87; Kaufman, "Semitics: Directions and Re-Directions," 280–82; cf. John C. Beckman, *Toward the Meaning of the Hebrew Piel Stem* (PhD diss., Harvard University, 2015). The notion that the Piel stem is "intensive," a misunderstanding of the Piel encouraged by comparison with Arabic, was effectively refuted by Goetze, "So-Called Intensive of the Semitic Languages," 1–8. It should be noted that the Piel's transformation can be additive or subtractive in that both multiplication and its inverse, division, apply. This points to new possibilities for understanding certain verbs. For instance, does כפר mean 'to cover (sin or its effects)' which refers to adding something, or 'to remove (sin or its effects)', which refers to subtracting something?

such verbs would be an extension or prolongation of the action represented by the Qal (as stated above)—which seems to be the case with הלך 'to walk':

(10) וַיִּשְׁכַּב בַּשָּׂק וַיְהַלֵּךְ אַט — *He lay in sackcloth and **walked all about** slowly.* (1 Kgs 21:27)

On the other hand, if the verb is count-like (Achievement or Accomplishment) and/or its DO is a count noun, the multiplication would be of an iterative nature, as seems to be the case with נשך 'to bite'. In this regard, the opposition of the Qal in Num 21:6 to the Piel in 21:9 is very instructive. The Qal is used when one snake is biting one man, but the Piel is used when each snake is repeatedly biting, biting more than one person each; and consequently, collectively they are biting many people:

(11) 6 וַיְנַשְּׁכוּ אֶת־הָעָם: . . . 9 וְהָיָה אִם־נָשַׁךְ הַנָּחָשׁ אֶת־אִישׁ — 6 *They* [*the snakes*] ***were biting*** [Piel] *the people* [plural object]. . . . 9 *If a snake **has bitten*** [Qal] *a man* [singular object]. (Num 21:6, 9)

With not a few roots, the Piel is *denominative*, enabling the creation of new verbs from already-existent nouns, as with the ubiquitous Piel of דבר 'to speak' from דָּבָר 'word'. Less common examples include בכר 'to give the right of the firstborn' (Deut 21:16) from בְּכֹר 'firstborn' and עפר 'to throw dust' (2 Sam 16:13) from עָפָר 'dust'.

Finally, there are several roots in which the Piel does not seem to function according to the above categories. For example, שׁמע 'to hear' is used in military contexts of mustering troops (1 Sam 15:4; 23:8) and ילד 'to bear a child' means 'to act as a midwife' (Gen 35:17; 38:28; Exod 1:15–17, 21).[48] In all likelihood, this is because the Piel does not have a uniform function and thus functions as a "catch-all" category, making it the appropriate stem to use for whatever meaning Hebrew speakers needed.

Hithpael

The distinguishing feature of Hithpael is that the referent represented by the PSA is assigned a second semantic role, which differs depending on the verb type and is transformed disparately, accordingly.

For active transitive and stative transitive verbs, the number of core arguments in the Hithpael is reduced compared to the Qal and an additional semantic role (that of the DO of the corresponding Qal) is added to the one argument that is

48. Although it is possible that these might be looked at as those who produce many babies, and, therefore, pluralitive.

left. The Hithpael therefore, like the Niphal, is an attritting stem. However, unlike the Niphal, the Agent is not left anonymous.

In active transitive verbs, this additional role is Patient, so the referent performs the action on himself/herself. Thus, with this verb type Hithpael is typically *reflexive*:

(12) וַתִּתְעַלָּף *She* [*Tamar*] ***wrapped herself*** [*with her veil*]. (Gen 38:14)

With stative transitive roots, the second role of the referent represented by the PSA (as is its first role) is a bit different, because as we noted above, with these verbs, the referent/PSA is not an affecting argument but an affected one; and the referent/DO (rather than the referent/PSA) is the affecting argument. The result is that the referent places himself in the state described by the root; with plural subjects this becomes *reciprocal* action:

(13) לָמָּה תִתְרָאוּ *Why are you* ***looking at one another****?* (Gen 42:1)

With active intransitive verbs, the Hithpael is frequently *iterative*. Because the Hithpael multiplies the semantic roles of the referent, but there is no other role to assign to the referent of active intransitive verbs (having only one argument/referent) and the number of referents is fixed at one, the verbal action itself exhibits compensatory multiplication.

(14) וָאֶתְנַפַּל לִפְנֵי יְהוָה *I* ***fell down repeatedly*** *before* Yhwh. (Deut 9:18)

Finally, with stative intransitive verbs, the Hithpael is *connected with the factitive Piel.* With the Piel, the referent represented by the PSA places the referent represented by the DO into a state; whereas, with the Hithpael, the referent/PSA places himself into a state:

(15) וַיַּרְא יוֹסֵף אֶת־אֶחָיו וַיַּכִּרֵם וַיִּתְנַכֵּר אֲלֵיהֶם *Joseph saw his brothers, recognized them, and* ***pretended to be*** [*i.e.*, ***made himself***] a ***foreigner*** *toward them*. (Gen 42:7)

Hiphil

The Hiphil, the most common derived stem, is the quintessential accreting stem in that it adds a core argument for all roots. Hence, it turns intransitives (with one core argument) into transitives (with two core arguments) and makes transitives (with two core arguments) doubly transitive (three core arguments).

Accordingly, the Hiphil functions as a *causative*, for the most part, with verbs that are either active or transitive:

(16) וַיּוֹלֶד בָּנִים וּבָנוֹת — *He **engendered** [i.e., **caused his wife to bear**] sons and daughters*. (Gen 5:4)

(17) וַיָּבֵא אֶת־הָאָרֹן אֶל־הַמִּשְׁכָּן — *He **brought** [i.e., **caused to enter**] the ark into the tabernacle*. (Exod 40:21)

(18) וַיַּרְאֵם אֶת־מְבוֹא הָעִיר — *He **showed** them [i.e., **caused** them **to see**] the entrance of the city*. (Judg 1:25)

However, the Hiphil behaves differently for stative intransitive verbs: it has an *elative* function—that is, it places someone or something into an absolute superlative state.[49] Accordingly, it differs in function from that of the Piel, which merely expresses the bringing about of the state the root describes:[50]

(19) וַתֵּלֶד רָחֵל וַתְּקַשׁ בְּלִדְתָּהּ: [17] וַיְהִי בְהַקְשֹׁתָהּ בְּלִדְתָּהּ וַתֹּאמֶר לָהּ הַמְיַלֶּדֶת אַל־תִּירְאִי כִּי־גַם־זֶה לָךְ בֵּן: — [16] *Rachel gave birth and was in **hard labor*** [Piel]. [17] *When she was in her **hardest labor*** [Hiphil], *the midwife said, "Do not fear because also this one is a son for you."* (Gen 35:16–17)

When paired with another verb, the stem can be used as an adverbial auxiliary verb with elative force, such as with הבר 'to be many':

(20) וַיֶּרֶב הַיַּעַר לֶאֱכֹל בָּעָם מֵאֲשֶׁר אָכְלָה הַחֶרֶב בַּיּוֹם הַהוּא — *The forest consumed **many more** people than the sword consumed on that day*. (2 Sam 18:8)

For a few roots used in forensic contexts, the Hiphil of stative intransitive verbs is declarative (delocutive):

(21) כִּי־יִהְיֶה רִיב בֵּין אֲנָשִׁים וְנִגְּשׁוּ אֶל־הַמִּשְׁפָּט וּשְׁפָטוּם וְהִצְדִּיקוּ אֶת־הַצַּדִּיק וְהִרְשִׁיעוּ אֶת־הָרָשָׁע: — *When a legal case obtains between persons, they shall take it to court, and [the judges] will make a judgment for them. They will **acquit** [i.e., **declare innocent**] the innocent and **convict** [i.e., **declare guilty**] the guilty.* (Deut 25:1)

49. "Semitic in general had once an elative or emphatic form indicated by a special prefix, and that prefix in question was homogeneous with that of the so-called causative" (E. A. Speiser, "The 'Elative' in West-Semitic and Akkadian," *JCS* 6 [1952] 81–92). This elative function is based on the observation that Akkadian, Arabic, and Hebrew each evince a correlation of the 3ms pronoun, the causative preformative, and the elative morpheme.

50. E. A. Speiser, *Genesis: Introduction, Translation, and Notes* (AB 1; Garden City, NY: Doubleday, 1964) 273.

Such declarative Hiphils are elatives as well. The ontological statuses of the defendants above are clear, and nothing can change them. The only thing that can change is their legal status. So the elative Hiphil here places an individual into an absolute superlative with respect to his legal status (i.e., declare innocent vs. declare guilty).

Finally, the Hiphil is sometimes *denominative*.[51] It seems that the Hiphil was utilized rather than the Piel in many of these instances because the verb is causative (e.g., the Hiphil of מטר 'to cause to rain' from the noun מָטָר 'rain'[52]); expresses an enduring characteristic associated with a particular root (e.g., the Hiphil of לבן 'to be white' from the adjective לָבָן 'white'[53]); or expresses an adverbial concept connected with a nominal, meaning 'to act in an *x*-wise manner' (e.g., the Hiphil of ימן 'to go to the right' from the noun יָמִין 'right'). All these senses are consistent with the usage of the Hiphil otherwise,[54] but they are not in accordance with the Piel's functions.[55] Additionally, in some cases where the Hiphil may be used, the speaker wishes to express a literal meaning connected with a given root, but the Piel has a figurative signification with that root (e.g., because כבד 'heavy' in the Piel is 'to honor', the Hiphil must be used for 'to make heavy' [e.g., Exod 8:11, 28; 9:34; 10:1; 1 Kgs 12:10, 14]).

Semantic Relationships between Derived Stems

Having largely targeted the derived stems' semantic relationships to the Qal above, we now briefly focus on their semantic relationships to one another by examining their functions in roots not attested in the Qal.[56] Roots of this type occur

51. The Hiphil is denominative more commonly than the Niphal but less often than the Piel.

52. However, weather verbs are peculiar in language and often have a dummy subject. For example, "It" in *It is raining* has no referent.

53. The Piel of לבן is factitive ('to make white', i.e., to change color from something else to white) and occurs only in Late Biblical Hebrew (Dan 11:35) and Mishnaic Hebrew. The Hiphil is used for other color verbs as well (e.g., the Hiphil of אדם 'to be red').

54. The causative and elative functions are apparent in the Hiphil's usage as described above; the Hiphil infinitive absolute is commonly used adverbially. See also the chapters by Benjamin J. Noonan ("Nouns, Adjectives, and Adverbs") and by Ting Wang and Benjamin J. Noonan ("The Infinitives Absolute and Construct") in this volume.

55. The difference arises because the Piel concerns Transitory states while the Hiphil additionally concerns events and Atelic states. Hence, the Piel is never truly a causative, in that the causative involves events. Factitive Piel can place (or remove) someone or something into (or from) Transitory states, because these are changeable conditions; but because the Piel involves change, it cannot be used with Atelic states, in that they are more-or-less permanent properties. On the contrary, the Hiphil is not so limited, indicating entrance into or continuation of Atelic states—or for Transitory states, the elative (on Transitory vs. Atelic states, see Fernald, *Predicates and Temporal Arguments*, 4–11). Finally, the Hiphil expresses adverbial concepts, a signification the Piel cannot convey, since change of state is not integral to them.

56. The lack of the Qal in more than 400 roots could be accidental (i.e., due to the specific content of the biblical corpus) or it could be for semantic reasons.

in one, two, or three of the primary derived stems (i.e., the Niphal, Piel, Hithpael, and Hiphil) but not all four of the primary derived stems.[57]

A number of roots occur only in one of the primary derived stems but not in the Qal. For the thirty-five roots that occur only in the Niphal,[58] the stem essentially functions normally, expressing active transitive Achievements or Accomplishments with medio-passive diathesis and conveying entrance into Transitory states (e.g., שׁען 'to lean'). Sixty roots occur only in the Piel.[59] These roots often function as expected (e.g., שׁוע 'to cry out continually'). However, with some of the roots (e.g., כסה 'to cover', נסה 'to test', and שׁרת 'to attend to someone as a personal servant'), it is not self-evident that the stem has its standard semantic functions, and they have likely lexicalized (i.e., their function is basically neutralized).[60] The twenty roots that occur only in the Hithpael[61] exhibit the customary functions and diatheses (e.g., פלשׁ 'to roll around [in the dust]'). The fifty-one roots that occur only in the Hiphil[62] typically function as expected (e.g., שׁכם 'to do [something] early'). But, there are some exceptions (e.g., שׁלך 'to throw' appears to be a lexicalization of the stem).

Some roots occur in two of the four primary derived stems but not in the Qal. Of these roots that are attested in the Niphal and one other primary derived stem, both the Piel (six roots[63]) and Hiphil (twenty roots[64]) act as active transitive bases to the active intransitive Niphal (e.g., בעת 'to become frightened' in the Niphal and 'to frighten' in the Piel and יתר 'to be left over' in the Niphal and 'to leave over' in the Hiphil).[65] However, this is not the case for the two roots that occur in the

57. *HALOT* lists several roots that occur in the four primary derived stems, namely מלט, נכר, and פלא. However, the Hithpael of מלט is from a homonymous root, the root נכר possibly occurs once in the Qal (Hos 3:2), and the Piel of פלא is from a homonymous root. סתר occurs in the Pual in addition to the four primary derived stems and is thus disqualified from consideration here.

58. The roots are אבק, אות, אלח, אנח, אנשׁ, בוך, גרז, דהם, דחח, זוח, זעך, הלא, חסן, חשׁל, חתך, טמה, יעז, כוה, כמר, כנף, כתם, לבט, מלץ, נבא, נפשׁ, נתע, סמן, עגן, עצל, צרב, צתם, רדם, שׁקד, שׁתר, and שׁען. All root data from G. Weaver, T. Stroup, and K. Lowery.

59. The roots are אלץ, באר, בקר, בתק, גדף, גשׁשׁ, התל, זהם, זנב, זנק, חבב, חוב, חפא, טלל, טנף, טפח, יבב, יבם, כהן, כנה, כרסם, כשׁף, לקשׁ, מאן, מגן, נאר, נדה, נחשׁ, נסה, נתח, סחה, סלד, סלף, סנף, סרף, עבת, עזק, עכס, עלע, עפר, פגר, פכה, פלס, פנק, פסג, פצל, פשׁח, קפד, רצד, שׁדד, שׁפח, שׁקר, שׁרך, שׁוע, שׁנס, שׁקץ, שׁסף, שׁסע, שׁשׁא, שׁשׁה, and תאה.

60. For a discussion of lexicalization, see Beckman, *Toward the Meaning of the Hebrew Piel Stem*, 71–73.

61. The roots are אבך, אחד, אפק, גלע, גרד, דדה, חתן, יהד, יחשׁ, יפח, יצב, להם, עדן, עשׁק, פלץ, פלשׁ, רפק, ציר, ציד, and תפל.

62. The roots are אבר, אדב, בלג, גוף, גשׁם, דוב, דוח, הון, הכר, הסה, חלט, תזז, טעה, טרח, ילל, יעל, ימשׁ, ימר, ימן, יעז, יפע, ישׁט, כבר, כפשׁ, לעב, לעט, מאר, מוך, מסה, נדא, נלה, נשׁג, נשׁל, סבת, סות, עוב, עוך, פאה, פור, פחח, פרא, צהר, צות, צנע, קשׁח, שׁגא, שׁגח, שׁמאל, שׁוא, שׁכה, שׁכם, שׁלג, and תאם.

63. The roots are בעת, חנק, יאשׁ, לבב, נצח, and פלג.

64. The roots are אדר, בדל, זהר, יאל, ישׁע, יתר, כאה, כנע, לון, מור, מטר, מקק, מרץ, נזר, נין, נשׁק, פלה, קהל, שׁמד, and שׁקף.

65. Boyd, *Synchronic Analysis of Medio-Passive-Reflexive*, 275–80.

Niphal and Hithpael, נבא 'to hide' and פתל 'to entwine, become entangled', which both exhibit a distinct diathesis.[66] The Piel is attested along with either the Hithpael or the Hiphil. Where only the Piel and Hithpael are attested (twelve roots[67]), the latter is generally the reflexive of the former (e.g., שׁבח 'to praise' is 'to boast [praise oneself]' in the Hithpael[68]). Where only the Piel and Hiphil occur (nine roots[69]), the stems almost always seem to be related to an unattested Qal rather than to each other (e.g., קנא 'to envy' in the Piel' and 'to provoke jealousy' in the Hiphil). The outlier is the rare root גמא 'to drink water' (a mass-like Activity): the Piel is used metaphorically of a charger gulping up ground (Job 39:24), an extension of the action, and the Hiphil is obviously causative, 'to give drink [i.e., to cause to drink]' (Gen 24:17). The Hithpael-Hiphil coupling occurs only with ידה 'to thank, to confess, to praise' in the Hiphil and (most likely) 'to confess repeatedly' in the Hithpael.

Finally, there are some roots attested in three out of the four primary derived stems but not in the Qal.[70] Only נחם is attested in the Niphal, Piel, and Hithpael. The Hithpael means 'to comfort oneself, to console oneself' and is reflexive of the Piel 'to comfort, to console'. The Niphal here may be analogous to the subtractive Piel—thus, leaving a state (of being consoled); hence, 'to regret, to be sorry for'. שׁחת, one of the six roots attested only in the Niphal, Piel, and Hiphil,[71] exhibits parade examples of some of the functions of these stems: the inchoative Niphal 'to enter a state of ruination', the factitive Piel 'to place into a state of ruination', and the Hiphil is either elative ('to place into a state of total ruination') or adverbial ('to act in a ruinous manner'). Finally, חבא 'to hide', one of three roots attested only in Niphal, Hithpael, and Hiphil,[72] plainly illustrates the differences among these stems and how they relate to one another. The Hiphil appears to be the active transitive base stem (an Accomplishment) 'to hide (an individual or thing)'; the Niphal is an active intransitive inchoative (either an Achievement or an Accomplishment) 'to hide'; and the Hithpael is an active transitive reflexive (either an Achievement or an Accomplishment) 'to hide oneself'.[73]

66. Ibid., 239–72.

67. The roots are אוה, בשׂר, גמא, גרה, חדשׁ, חסד, לחשׁ, נהל, עמר, עתד, פאר, פלל, and קלס.

68. The Piel of שׁבח does not clearly have its usual meaning and again may have lexicalized. Notwithstanding, it is intriguing that the base stem of the dominant root meaning 'to praise', namely הלל, is also a Piel (perhaps because the praise is prolonged or repeated).

69. The roots are אזן, חצצר, כתר, נבט, קבל, קדם, קנא, שׁבח, and תוה.

70. The attested combinations are: Niphal, Piel, and Hithpael; Niphal, Piel, and Hiphil; and Niphal, Hithpael, and Hiphil. No roots occur only in the Piel, Hithpael, and Hiphil.

71. The other roots are יגה, יחל, כחד, סכל, עקשׁ, and תעב.

72. The other roots are יכח and עלם.

73. The Hithpael of חבא in Gen 3:8 is marked, as it were, for Agent = Patient. In addition, as indicated by the context as well as the stem, the description there suggests that the guilty pair assiduously hid themselves "among the trees of the garden" to avoid the confrontation with God they knew was to come. Consequently, Adam told a half-truth, relating merely the bare bones of

Summary

The finding of this section is that the derived stems follow a particular transformational schema—not unexpected, considering that these functions were illustrated by carefully chosen examples. But because of the latter, it would not be valid to claim that these are indeed their functions. Consequently, this study requires a "randomization" of the data, which I accomplish in part in the next section by examining the diverse functions evinced in the actual usage of the most common roots attested in the Qal and all four of the main derived stems for each of the four Biblical Hebrew verb types: נשׂא and ילד (active transitives), הלך (active intransitive), ידע (stative transitive), and קדשׁ (stative intransitive).[74] And then I look carefully at פקד, which is attested in all stems and presents some particular challenges, to complete the study.[75]

Stem Functions for the Common Root(s) in Each Verb Type

Active Transitive נשׂא and ילד (Accomplishment [+ dyn + tel + dur])[76]

Qal

The basic meanings of נשׂא, which occurs 598 times in the Qal stem, are 'to lift up' and 'to carry'; the meaning 'to exalt' comes from metaphorical extension.[77] The Qal usually has two arguments, PSA and DO, with the semantic roles of Agent and Patient, respectively, and has the situational aspect class of Achievement or

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the situation ("I hid," i.e., he entered a state of hiddenness) as if he was not an Agent by using the Niphal in Gen 3:10, which contradicts what the narrator tells us in Gen 3:8.

74. Due to space constraints, representatives of the Biblical Hebrew verb types rather than all seven stems are examined. Even though all of the verbs studied occur in all the main derived stems, they are not necessarily well represented in each. Based on such sparse attestation, it would not be prudent to definitively conclude that a stem is behaving typically (or not). Furthermore, not being native speakers, it is likely we will not fully understand the niceties of the language at certain points.

75. The root בקע also occurs in all stems, but פקד has been the object of numerous studies and provides a fine example of the complexities of the verbal stems in Biblical Hebrew.

76. נשׂא is the first root of this type that is attested in all the main stems. עשׂה has the highest frequency of this type, but lacks both Hithpael and Hiphil, and the two attested occurrences in the Piel are from a homonymous rare root. נתן, לקח, and אכל, all three of which are more common than נשׂא, occur neither in the Piel, Hithpael, and Hiphil for the first, nor in the Piel and Hiphil for the second, nor in the Piel and Hithpael for the third.

ילד is included in this analysis because in some stems its transformations are regular, whereas those of נשׂא are not (and vice versa), allowing for a balanced treatment. In addition, ילד occurs in both the old Qal passive and the Niphal—thus, allowing a comparison of these two stems with similar diathesis, having at the same time dissimilar morphology.

77. Gen 4:7; passim.

Activity. The former class, represented by 'to raise up' or 'to lift up', reflects an instantaneous change of state (+ dynamic + telic – durative), which, in addition, is a count-like verb. The latter class may be seen in 'to carry' (+ dynamic – telic + durative), which is a mass-like verb.

The Qal of **ילד** normally has two core arguments: an Agent, the mother, and a Patient, the child she bears.[78] In addition, often **ילד** has a non-core argument (oblique semantic role)—namely, the father of the child, which is marked with **לְ**. The situation aspect is Accomplishment.[79]

We would expect that the Qal for this root would only occur in the feminine gender and that the Hiphil would be reserved for the father's role. But surprisingly, the masculine gender does occur in the Qal—twenty-four times!—with an interesting distribution of the Qal 3ms vis-à-vis the Hiphil 3ms.[80] In these instances, the Qal seems to be functioning in all respects like its Hiphil.

Niphal

נשׂא in the Niphal, which occurs thirty-three times, is a middle-passive transformation of the Qal meaning. It has one core argument, with semantic role of Theme or Patient.[81]

(22) וְנִשָּׂא־בָם אֶת־הַשֻּׁלְחָן *The table **will be lifted** (and **carried**) by them.* (Exod 25:28)[82]

ילד in the Niphal, which occurs thirty-seven times, has only one core argument (the PSA)—namely, the child, with the semantic role of Patient.[83] The

78. Gen 3:16; passim.

79. A rather unlikely possibility is that it is Achievement, if the idea is switching from the state of unborn-ness to born-ness; but giving birth is a long, laborious process.

80. The Qal stem of **ילד** occurs 3× in Gen 4:18, 6× in Gen 10 and its parallels in Chronicles (Gen 10:8, 13, 15, 24 [2×], 26; 1 Chr 1:10–11, 13, 18 [2×], 20), and once each in Gen 22:23; 25:3; Isa 49:21; Jer 17:11, where the Hiphil would be expected. The occurrences in Ps 7:15; Job 38:28; Prov 23:22, and probably also Num 11:12; Deut 32:18 could be explained as metaphorical. In 1 Chr 2:48, the PSA of the Qal of **ילד** is Maacah, the concubine of Caleb. This incongruity is most likely due to the attraction of the verb to Caleb, because the more salient element controls grammatical agreement in attraction.

81. Exod 25:28; 2 Sam 19:43 [2×]; 2 Kgs 20:17; Isa 2:2, 12–14; 6:1; 30:25; 33:10; 39:6; 40:4; 49:22; 52:13; 57:7, 15; 66:12; Jer 10:5; 51:9; Ezek 1:19 [2×], 20, 21 [2×]; Mic 4:1; Zech 5:7; Ps 7:7; 24:7; 94:2; Prov 30:13; Dan 11:12; 1 Chr 14:2.

82. In this example, the marking of the DO-Patient with **אֵת** in the corresponding active construction is carried over to the PSA-Patient in the middle-passive construction. In addition, it appears that we may have a very rare occasion in which the Agent appears in the middle-passive construction (as an oblique object marked with **בְּ**).

83. Gen 4:18; 10:1; 17:17; 21:3, 5; 46:20; 48:5; Lev 22:27; Num 26:60; Deut 15:19; 23:9; 2 Sam 5:13; 14:27; 1 Kgs 13:2; Isa 66:8; Hos 2:5; Ps 22:32; 78:6; Job 1:2; 3:3; 11:12; 15:7; 38:21; Prov 17:17; Eccl 4:14; 7:1; Ezra 10:3; 1 Chr 2:3, 9; 3:1, 4–5; 7:21; 20:6, 8; 22:9; 26:6.

situation aspect is Achievement. It very often has an oblique argument marked with לְ, the name of the child's father. The verb and these two arguments are variously ordered. The default is the finite verb first, the oblique argument second, and the unmarked PSA (Patient), third. For example:

(23) וַיִּוָּלְדוּ לוֹ שִׁבְעָה בָנִים וְשָׁלוֹשׁ בָּנוֹת
Seven sons and three daughters *were born to him.* (Job 1:2)

Rarely, an additional oblique argument, the name of the mother, is added and marked with מִן. For example:

(24) בְּנֵי יְהוּדָה עֵר וְאוֹנָן וְשֵׁלָה שְׁלוֹשָׁה נוֹלַד לוֹ מִבַּת־שׁוּעַ הַכְּנַעֲנִית
The sons of Judah were Er, Onan, and Shelah. Three were born to him by ***bat Shuaʿ the Canaanite****.* (1 Chr 2:3)

On five occasions, the Patient is marked by אֵת, as it would be marked in the corresponding active construction. Gen 4:18 is such an example:[84]

(25) וַיִּוָּלֵד לַחֲנוֹךְ אֶת־עִירָד
To Enoch ***Irad*** *was born* (Gen 4:18)

Most often the Patient is a person, but in one instance it is an animal:

(26) שׁוֹר אוֹ־כֶשֶׂב אוֹ־עֵז כִּי יִוָּלֵד
an ox, sheep, or goat that ***is born*** (Lev 22:27)

Finally, we observe that Patient/PSA is not always expressed, as is the case in Gen 17:17:

(27) הַלְבֶן מֵאָה־שָׁנָה יִוָּלֵד
Shall to a hundred-year-old [***a son***] *be born?* (Gen 17:17)

Notably, the Qal passive of ילד is virtually semantically indistinguishable from the Niphal: it possesses the same argument structure, the same semantic role, the same situation aspect, and the same marking of the arguments.[85] This is not surprising, since its function was assumed by the Niphal.[86]

84. The others are Gen 21:5; 46:20, Num 26:60; 1 Chr 2:9.

85. The Qal passive of ילד occurs 28× (Gen 4:26; 6:1; 10:21, 25; 24:15; 35:26; 36:5; 41:50; 46:22, 27; 50:23; Judg 13:8; 18:29; 2 Sam 3:5; 21:20,22; Isa 9:5; Jer 20:14–15; 22:26; Ps 87:4–6; 90:2; Job 5:7; Ruth 4:17; 1 Chr 1:19). It is ludicrous to suppose that the meaning 'to midwife' is intended in each of these instances.

86. The shift from the Qal passive to Niphal is clearly documented in three cases: In 2 Sam 3:5; 21:20; 21:22, the old Qal passive is used, but in the parallel passages in 1 Chr 3:1; 20:6; 20:8, the Niphal appears instead. These changes suggest that the old Qal passive was waning in usage, eventually becoming otiose, and was replaced by the Niphal (as discussed in note g to Table 1,

Piel

The instances of the Piel of **נשׂא**, which occurs twelve times, appear for the most part to align with that stem's typical transformations of its basic meanings, which are various types of pluralitives for an active transitive Achievement or Activity verb.[87] The transformation of an Achievement, count-like **נשׂא** 'to lift up' is iterative—that is, 'to lift up repeatedly':[88]

(28) נִשֵּׂא מַמְלַכְתּוֹ *He* [YHWH] ***repeatedly exalted*** *his kingdom* (2 Sam 5:12)

נשׂא 'to carry' is a mass-like Activity. Therefore, its transformations are various extensions, either of time (e.g., Isa 63:9; Ps 28:9) or of distance (e.g., Amos 4:2). However, a peculiar usage obtains in 1 Kgs 9:11; Esth 9:3; Ezra 1:4; 8:36, in which its meaning *ad sensum* 'to supply, sustain, help', does not seem obviously to derive from any meanings of the Qal.

For **ילד**, all but one of its ten occurrences Piel are participles, meaning 'to midwife'.[89] The sole exception is an infinitive construct with a pronominal suffix in Exod 1:16:

(29) בְּיַלֶּדְכֶן אֶת־הָעִבְרִיּוֹת *when you* ***'midwife'*** *the Hebrew women . . .*

The root in this stem has two core arguments, with semantic roles of Agent and Patient. Its situation aspect appears to be Accomplishment. But the meaning of the Piel here, although it is obviously connected with giving birth, does not seem to arise from the basic signification of the root by means of any of the conventional transformations proposed for this stem. It is obvious that it is not a pluralitive of the active transitive Qal, because 'to give birth repeatedly' makes no sense. This could be due to the "catch-all" nature of the Piel,[90] but given the somewhat-problematic nature of this root, it probably constitutes an exception to the expected function of the Piel for this verb.

p. 87). The other possibility, that the Niphal became more passive apart from external impetus and pushed the old Qal passive out of its place (the push chain model), is highly unlikely.

87. 2 Sam 5:12; 1 Kgs 9:11; Isa 63:9; Jer 22:27; 44:14; Amos 4:2; Ps 28:9; Esth 3:1; 5:11; Ezra 1:4; 8:36.

88. Cf. Esth 3:1; 5:11. The the words in Jer 22:27 are of a more metaphorical nature: here, **נשׂא** means 'to long for': הֵם מְנַשְּׂאִים אֶת־נַפְשָׁם 'they *repeatedly lift up* their souls' (cf. Jer 44:14).

89. Gen 35:17; 38:28; Exod 1:15, 17–18, 19 [2×], 20–21.

90. Because the other stems were already in use, this left Hebrew speakers with the Piel stem to use to create a verb meaning 'to midwife', which is not necessarily a problem, because the Piel stem otherwise tends to be used to create verbs.

Hithpael

For **נשׂא**, which occurs ten times in the Hithpael, this stem often appears to have reflexive diathesis in that the Agent and Patient have the same referent, as in Num 16:3:[91]

(30) וּמַדּוּעַ תִּתְנַשְּׂאוּ עַל־קְהַל יְהוָה — *Why do you **exalt yourselves** over the assembly of YHWH?*

However, on at least one occasion, it might manifest Niphal-like middle diathesis, in which PSA has the semantic role of Patient/Theme. In Num 24:7, the Hithpael of **נשׂא** is parallel to **רום** 'to rise up':[92]

(31) וְיָרֹם מֵאֲגַג מַלְכּוֹ וְתִנַּשֵּׂא מַלְכֻתוֹ — *Its king shall rise higher than Agag and his kindom shall **be exalted/rise up*** (Num 24:7)

The one occurrence of the Hithpael of **ילד** has a totally different meaning from the Qal or the Piel, not obviously derivable from them by means of the conventional transformations attributed to Hithpael. In Num 1:18 it means, *ad sensum*, something to the effect of 'to have one's name registered on the family list'.[93] Here it has one argument, the semantic role of which is uncertain because the meaning is uncertain, but it seems be Patient and its situation aspect seems to be Accomplishment (if the registering [?] is a process) or Achievement (if it is an instantaneous change of state).

Hiphil

The Hiphil of **נשׂא** is found twice. On the first occurrence, the transformation is transparent:

(32) וְהִשְּׂיאוּ אוֹתָם עֲוֹן אַשְׁמָה — *They will **cause them to carry** reparation-requiring guilt*. (Lev 22:16)

In this instance, the Hiphil is clearly the causative of the Qal, 'they will carry reparation-requiring guilt'. It has the logical structure depicted in fig. 2, with the PSA of the Hiphil as primary Agent, the PSA of the Qal as secondary Agent, and עֲוֹן אַשְׁמָה as an argument, with a semantic role we could call Affecter.

The other Hiphil of this root, which occurs in 2 Sam 17:1, is not so clear-cut, however, as is evident in Example 33:

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91. Num 16:3; 23:24; 24:7; 1 Kgs 1:5; Ezek 17:14; 29:15; Prov 30:32; Dan 11:14; 1 Chr 29:11; 2 Chr 32:23.

92. Cf., possibly, 2 Chr 32:23. As the Niphal took on the role of the passive, this created a void in conveying middle diathesis that the primarily reflexive Hithpael filled.

93. Cf. *HALOT* 412.

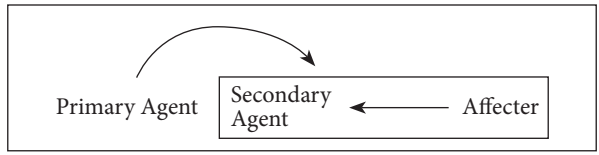

Figure 2. Logical Structure of the Hiphil in Lev 22:16.

(33) וְהַשִּׁיאוּ כָל־יִשְׂרָאֵל אֶל־ הָעִיר הַהִיא חֲבָלִים

They shall cause *all Israel* ***to carry*** *ropes to that city.* (2 Sam 17:1)

At issue is the semantic role and syntactic function of כָּל־יִשְׂרָאֵל 'all Israel': is it a secondary Agent and DO or a primary Agent and PSA? There are four possible understandings that take the causative seriously.[94] On the one hand, if כָּל־יִשְׂרָאֵל is a secondary Agent and DO, this verse could be understood as 'they shall cause all Israel to carry ropes to that city', with unknown 'they' and kernel 'all Israel shall carry ropes to that city'; or as 'all Israel will be caused to carry ropes to that city', with a dummy 'they' with an active verb indicating the passive. If, on the other hand, כָּל־יִשְׂרָאֵל is a primary Agent and PSA, this verse could be understood as 'all Israel will cause them to carry ropes to that city', with an unexpressed secondary Agent/DO referring to an unknown referent; or 'all Israel will cause themselves to carry ropes to that city', which has reflexive diathesis in which the secondary Agent/DO and primary Agent/PSA have the same referent.

The first option is the most likely, in which a real 'they' refers to the officials of the city as expressed in fig. 3, but an impersonal passive is also plausible. It is unlikely that כָּל־יִשְׂרָאֵל is primary Agent and PSA, however, because the Hiphil's function in this case would be virtually identical to that of the Qal.

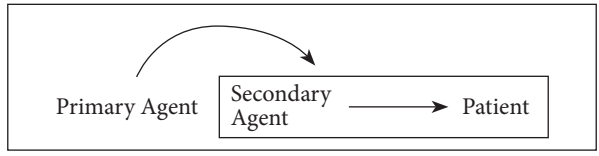

Figure 3. Logical Structure of the Hiphil in 2 Sam 17:1.

The transformation of the stem is regular for ילד, which occurs 176 times in the Hiphil.[95] The primary Agent is the father and the secondary Agent is the

94. Curiously, most translations ignore the causative, thereby making it virtually indistinguishable from the Qal.

95. Gen 5:3; passim.

mother (only named in 1 Chr 2:18), who effects the Patient (a child). Most likely, the situation aspect is Accomplishment. Genesis 5:3a is an example with no explicit mention of a child; the child, Seth, is named in Gen 5:3b. In Gen 5:4, the Hiphil governs a named child marked with אֵת.

Active Intransitive הלך *(activity [+ dyn – tel + dur])*[96]

Qal

This root occurs 1,419 times in the ground stem out of 1,554 times in all stems.[97] Without a destination indicated, it is a *par excellence* example of the situational aspect Activity. With the same, it is an Accomplishment. In either case, the meaning is identical: 'to walk, go'.

Niphal

The root הלך occurs only once in the Niphal, in Ps 109:23:

(34) כְּצֵל־כְּנָטוֹתוֹ נֶהֱלָכְתִּי *Like a shadow when it stretches out,* ***I am gone away (?).*** (Ps 109:23)

This is not the typical transformation expected of the Niphal. That an activity would occur in the Niphal at all is somewhat surprising, because the Niphal is a de-transitivizer in that it removes an argument from the structure found in the Qal. Because the Qal of this root is already intransitive, having only one argument, it seems that the Niphal should be precluded. Niphals are rare but not unattested in this situation aspect class.[98]

Piel

The Piel of this root is used metaphorically of a walk of life or conduct twenty-five times.[99] Its eleven non-metaphorical uses refer to walking all about without an implied destination (e.g., 1 Kgs 21:27; Ps 55:15; Prov 6:28) and other kinds of motion, including God traveling (Ps 104:3), water flowing (Ps 104:10), and ships plying the waves (Ps 104:26). In each instance, the Piel of הלך describes extended 'walking'. Thus, the Piel of הלך is in keeping with the understanding of the Piel of active intransitives, which are mass-like verbs.

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96. Although בוא is the most common of this type, it is only attested in the Qal and the Hiphil. If its Verb Phrase contains a destination, it will be + telic.

97. Gen 2:14; passim.

98. Besides נגשׁ, which was discussed above, עבר occurs once in the Niphal (נַחַל אֲשֶׁר לֹא־יֵעָבֵר 'a river that *could* not *be crossed*' [Ezek 47:5]), whereas the corresponding Qal has an argument marked with אֵת in which נַחַל, although syntactically a DO, is certainly not a Patient (וַנַּעֲבֹר אֶת־נַחַל זָרֶד '*and we crossed* the Nahal Zered' [Deut 2:13]). עלה has a small number of attestations in the Niphal, but their difference from the Qal is not transparent.

99. 1 Kgs 21:27; Isa 59:9; Ezek 18:9; Hab 3:11; Ps 38:7; 55:15; 81:14; 85:14; 86:11; 89:16; 104:3, 10, 26; 115:7; 131:1; 142:4; Job 24:10; 30:28; Prov 6:11, 28; 8:20; Eccl 4:15; 8:10; 11:9; Lam 5:18.

Hithpael

The Hithpael of הלך occurs sixty-four times.[100] Like the Piel, it is used of general conduct (e.g., 1 Sam 12:2), particularly in the phrase 'to walk with God' (e.g., Gen 5:22, 24; 6:9; 17:1). It may also refer to actual walking about, such as Abraham walking throughout the land of Canaan (Gen 13:17), Joshua's men walking about surveying the unallocated land (Josh 18:4, 8), David's men dispersing all about after hastily leaving Keilah (1 Sam 23:13), and Joab walking throughout Israel taking a census of all the men of fighting age (1 Chr 21:4). Thus, in actual usage, the iterative Hithpael of הלך does not appear to significantly differ from its function in the Piel.

Hiphil

The stem is straightforwardly causative for this root, which occurs forty-five times.[101] Its occurrence in 2 Kgs 6:19 is sufficient to explain how it works:

(35) וַיּוֹלֶךְ אוֹתָם שֹׁמְרוֹנָה׃ *So he* [*Elisha*] ***took*** *them* [*i.e.*, ***caused*** *them* ***to go***] *to Samaria*. (2 Kgs 6:19)

The corresponding Qal kernel would be something like *וַיֵּלְכוּ שֹׁמְרוֹנָה 'so they *went* to Samaria', which has the situation aspect of Accomplishment, with the PSA having the semantic role of Mover. The Hiphil adds a new argument, with semantic role of Agent, and demotes the old PSA to a secondary syntactic function—namely, the DO of the verb—while at the same time retaining its semantic role. The oblique argument remains unchanged during the transformation.

Stative Transitive* ידע *(Atelic state [– dyn – tel + dur]; Achievement [+ dyn + tel – dur])[102]

Qal

The Qal of this root occurs 821 times.[103] It is a two-argument verb, usually with the semantic roles of Cognizer for the PSA and Content for the second

100. Gen 3:8; 5:22, 24; 6:9; 13:17; 17:1; 24:40; 48:15; Exod 21:19; Lev 26:12; Deut 23:15; Josh 18:4, 8; Judg 21:24; 1 Sam 2:30, 35; 12:2 [2×]; 23:13 [2×]; 25:15, 27; 30:31; 2 Sam 7:6–7; 11:2; 2 Kgs 20:3; Isa 38:3; Ezek 1:13; 19:6; 28:14; Zech 1:10–11; 6:7 [3×]; 10:12; Ps 12:9; 26:3; 35:14; 39:7; 43:2; 56:14; 58:8; 68:22; 77:18; 82:5; 101:2; 105:13; 116:9; 119:45; Job 1:7; 2:2; 18:8; 22:14; 38:16; Prov 6:22; 20:7; 23:31; 24:34; Esth 2:11; 1 Chr 16:20; 17:6; 21:4.

101. Exod 2:9; 14:21; Lev 26:13; Num 17:11; Deut 8:2, 15; 28:36; 29:4; Josh 24:3; 2 Sam 13:13; 1 Kgs 1:38; 2 Kgs 6:19 [2×]; 17:27; 24:15; 25:20; Isa 42:16; 48:21; 63:12–13; Jer 2:6, 17; 31:9; 32:5; 52:26; Ezek 32:14; 36:12; 40:24; 43:1; 47:6; Hos 2:16; Amos 2:10; Zech 5:10; Job 12:17, 19; Ps 106:9; 125:5; 136:16; Prov 16:29; Eccl 5:14; 10:20; Lam 3:2; 2 Chr 33:11; 35:24; 36:6.

102. ראה and שׁמע both occur more often than ידע, but they lack Piel and Hithpael, respectively.

103. Gen 3:5 [2×]; passim.

argument.[104] With these semantic roles, the situation aspect is either Atelic state or Achievement. "To know" someone or something is to *have* knowledge. So, in a sense, *to know* is to possess something. Such possessing can be considered continuous (i.e., always possessing something or someone) or inceptive (i.e., taking possession of something or someone which or who was not possessed before). Thus, **ידע** may be used in the continuous sense—that is, with no change of state as an Atelic state (e.g., Gen 42:23; Isa 1:3; Hos 5:3)—or in an inchoative sense—that is, with a change of state and therefore an Achievement (e.g., Gen 22:12; Ruth 3:4).

When used in the sense of conjugal knowledge, **ידע** can have the semantic roles of Agent and Patient (e.g., Gen 4:1, 17, 25).

Niphal

The Niphal of **ידע** occurs forty-one times.[105] In each instance its situation aspect is Achievement, in which there is only one core argument, with the semantic role of Content or Patient.[106] In the Niphal of **ידע**, the PSA enters into a state of being known,[107] whether it is a person entering into this state (e.g., Exod 6:3) or an inanimate object entering into this state (e.g., Exod 2:14). As a result, it is often understood as a passive when it is looked at as the PSA being put into that state.

Piel

The Piel of **ידע** occurs only once:

(36) יְדַעְתָּה שָׁחַר מְקֹמוֹ *Did **you place** the dawn **in a state of knowin**g its place?* (Job 38:12)

This analysis understands this Piel to be factitive—that is, to place into a state of knowledge. This function of the Piel is usually reserved for stative intransitive verbs, but such an analysis is made possible because, as discussed above, knowing is a type of state. Nevertheless, what gives us pause is the fact that very few stative transitive roots occur in the Piel. This moves us to ask: Why a Piel here instead of a Hiphil, where it would have causative force, the logical structure being Agent causing Cognizer to know Content? The kernel underlying this (in which the root would be in the Qal) would be the unattested clause *'the dawn knows its place' (cf. Job 28:23). Frankly, these are very similar.

104. Van Valin, *Exploring the Syntax-Semantics Interface*, 55.

105. Gen 41:21, 31; Exod 2:14; 6:3; 21:36; 33:16; Lev 4:14; Deut 21:1; Judg 16:9; 1 Sam 6:3; 22:6; 2 Sam 17:19; 1 Kgs 18:36; Isa 19:21; 61:9; 66:14; Jer 28:9; 31:19; Ezek 20:5, 9; 35:11; 36:32; 38:23; Nah 3:17; Zech 14:7; Ps 9:17; 48:4; 74:5; 76:2; 77:20; 79:10; 88:13; Prov 10:9; 12:16; 14:33; 31:23; Ruth 3:3, 14; Eccl 6:10; Esth 2:22; Neh 4:9.

106. Boyd, *Synchronic Analysis of the Medio-Passive-Reflexive*, 462–63.

107. Thus, for this root, the stem is inchoative.

Hithpael

The Hithpael of **ידע** occurs only twice, in Gen 45:1 and Num 12:6:

(37) וְלֹא־עָמַד אִישׁ אִתּוֹ בְּהִתְוַדַּע יוֹסֵף אֶל־אֶחָיו — *No one stood with him when Joseph* ***made himself known*** *to his brothers.* (Gen 45:1)

(38) בַּמַּרְאָה אֵלָיו אֶתְוַדָּע — *In a vision* ***I make myself known*** *to him.* (Num 12:6)

In Gen 45:1, the Agent (Joseph) places the Cognizer (his brothers) into a state of possessing Content they did not previously have. This Content is the identity of, or experience, of the Agent himself; in other words, he places them in a state of knowing him (know who he truly is). The subsequent narrative (vv. 3–15) elucidates exactly what this means. The Hithpael of **ידע** in Num 12:6 functions in the same way (see fig. 4).

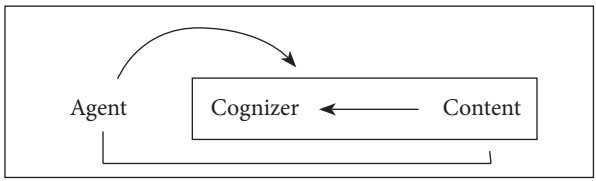

Figure 4. Logical Structure of the Hithpael in Gen 45:1 and Num 12:6.

This is a reflexive construction, at least in the sense that the action of the Agent returns to himself via a convoluted path. It apparently permits, at least here, a Hiphil-like transformation. Nevertheless, in that we are dealing with a *stative transitive* verb, the function is a self-referencing factitive and not a causative.

Hiphil

The Hiphil of **ידע** in all seventy-one attestations are either three-argument Achievements or three-argument Accomplishments, both of which manifest the following logical structure: Agent causes Cognizer to possess Content (see fig. 5, p. 118).[108]

In each instance the Agents of the Hiphil of **ידע** are sentient beings. Likewise, most of the Cognizers are human or treated as human (e.g., Jerusalem). They are

108. Gen 41:39; Exod 18:16, 20; 33:12–13; Num 16:5; Deut 4:9; 8:3; Josh 4:22; Judg 8:16; 1 Sam 6:2; 10:8; 14:12; 16:3; 28:15; 2 Sam 7:21; 1 Kgs 1:27; Isa 5:5; 12:4; 38:19; 40:13–14; 47:13; 64:1; Jer 11:18; 16:21 [2×]; Ezek 16:2; 20:4, 11; 22:2, 26; 39:7; 43:11; 44:23; Hos 5:9; Hab 3:2; Ps 16:11; 25:4, 14; 32:5; 39:5; 51:8; 77:15; 78:5; 89:2; 90:12; 98:2; 103:7; 105:1; 106:8; 143:8; 145:12; Job 10:2; 13:23; 26:3; 32:7; 37:19; 38:3; 40:7; 42:4; Prov 1:23; 9:9; 22:19, 21; Dan 8:19; Neh 8:12; 9:14; 1 Chr 16:8; 17:19; 2 Chr 23:13.

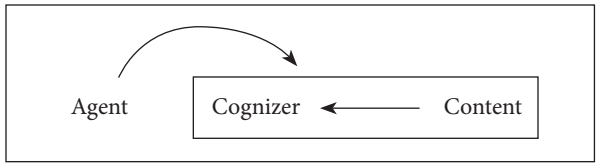

***Figure 5. Logical Structure of Hiphil of* ידע.**

either are marked in a number of different ways (e.g., אֵת, בְּ, לְ, and suffixes) or left unmarked or unexpressed. Content runs the gamut, from the meaning of dreams and appropriate actions to be taken to the specifics of God's work, and evidence a similar marking (e.g., אֵת) or are left unmarked or unexpressed.

There would be no surprises for the Hiphil of ידע were it not for the similarity of all these occurrences of the Hiphil to the Piel in Job 38:12. There is a difference, however, in that the Agent in all the Hiphils is a person whereas this is not the case with the Piel of ידע in Job 38:12,[109] and the Piel admits a factitive analysis, whereas the Hiphils are causatives of a stative transitive verb. Nevertheless, the semantic structure of this Piel does resemble that of the Hiphils in this metaphorical usage, in which the dawn is personified.

Stative Intransitive קדשׁ *(Transitory state [– dyn + tel + dur])*[110]

Qal

The Qal of קדשׁ, which occurs eleven times, means 'to be holy', that is, 'to be in a state of holiness'.[111] As such, it is a Transitory state, with one argument with the role of Experiencer. On the one hand, human beings and objects can become and remain holy (e.g., Exod 29:37), but humans can all too easily leave that state. On the other hand, because holiness is a permanent attribute of God, God is never the subject of the Qal of קדשׁ; instead, the adjective קָדוֹשׁ is used (e.g., Ps 99:3, 5, 9).

Niphal

The Niphal of קדשׁ is middle, with one argument with the role of Experiencer, and denotes the entering into the state of being holy. In all but one of its eleven occurrences, God is the PSA of the verb with the meaning 'I will be treated as holy'.[112] The one exception is Exod 29:43, in which the tabernacle 'becomes holy' because of the weighty presence of God.

109. Another less likely possibility is that these Hiphils are elatives as well as being causatives, which is a function lacking in the Piel.

110. Other roots of this type are attested more frequently than קדשׁ but are disqualified for lacking one or more of the main derived stems.

111. Exod 29:21, 37; 30:29; Lev 6:11, 20; Num 17:2–3; Deut 22:9; 1 Sam 21:6; Isa 65:5; Hag 2:12.

112. Lev 10:3; 22:32; Num 20:13; Isa 5:16; Ezek 20:41; 28:22, 25; 36:23; 38:16; 39:27.

Piel

The Piel of קדשׁ, which occurs seventy-five times, is factitive. It has two arguments with the roles of Agent and Patient and denotes putting someone or something into the state of being holy: hence, it means 'to *make* holy'.[113]

Hithpael

With the Hithpael of קדשׁ, which occurs twenty-four times, the PSA has two semantic roles (Agent and Patient) with the same referent. Thus, it means 'to put oneself' into a state of holiness and exhibits a reflexive force, just as we would expect of the Hithpael.[114]

Hiphil

At first glance, the transformational nature of the Hiphil of קדשׁ, which occurs forty-five times, appears to be difficult to distinguish from that of the Piel.[115] But, it is possible to distinguish them by comparing the usage of the two stems that occur in the same contexts and then contrasting those that occur in unique contexts. I will look at four shared contexts: with Yhwh as DO, with priests as DO, with non-priests as DO, and with objects as DO. In each case, it is evident that the Hiphil has an elative function and therefore differs from the Piel.

With Yhwh as DO, קדשׁ occurs in the Piel with foreign nations as the PSA (Ezek 36:23) but in the Hiphil with the leaders of Israel as PSA (Num 20:12; 27:14). No one can put Yhwh into a state of holiness, but, because he is most holy, people can treat him with the appropriate level of holiness (cf. Lev 10:3). Thus, the Hiphil differs from the Piel in that it is elative rather than factitive.

With priests as DO, קדשׁ occurs in the Piel with respect to the garments that will set them apart to engage in priestly service (Exod 28:3) but in the Hiphil with respect to the administration of the *most holy* things (1 Chr 23:13). This again supports the factitive versus elative distinction.

With other people as DO, the Piel occurs with respect to the change of status of the people in the presence of holy offerings (Ezek 46:20) but in the Hiphil with respect to their change of status to be in the presence of Yhwh himself (2 Chr

113. Gen 2:3; Exod 13:2; 19:10, 14, 23; 20:8, 11; 28:3, 41; 29:1, 27, 33, 36–37, 44 [2×]; 30:29–30; 31:13; 40:9–11, 13; Lev 8:10–12, 15, 30; 16:19; 20:8; 21:8 [2×], 15, 23; 22:9, 16, 32; 25:10; Num 6:11; 7:1 [2×]; Deut 5:12; 32:51; Josh 7:13; 1 Sam 7:1; 16:5; 1 Kgs 8:64; 2 Kgs 10:20; Jer 6:4; 17:22, 24, 27; 22:7; 51:27–28; Ezek 20:12, 20; 36:23; 37:28; 44:19, 24; 46:20; Joel 1:14; 2:15–16; 4:9; Mic 3:5; Job 1:5; Neh 3:1 [2×]; 13:22; 2 Chr 7:7; 29:5, 17 [2×].

114. Exod 19:22; Lev 11:44; 20:7; Num 11:18; Josh 3:5; 7:13; 1 Sam 16:5; 2 Sam 11:4; Isa 30:29; 66:17; Ezek 38:23; 1 Chr 15:12, 14; 2 Chr 5:11; 29:5, 15, 34 [2×]; 30:3, 15, 17, 24; 31:18; 35:6.

115. Exod 28:38; Lev 22:2–3; 27:14–19, 22, 26; Num 3:13; 8:17; 20:12; 27:14; Deut 15:19; Josh 20:7; Judg 17:3 [2×]; 2 Sam 8:11 [2×]; 1 Kgs 9:3, 7; 2 Kgs 12:19; Isa 8:13; 29:23 [2×]; Jer 1:5; 12:3; Zeph 1:7; Neh 12:47 [2×]; 1 Chr 18:11; 23:13; 26:26–27, 28 [2×]; 2 Chr 2:3; 7:16, 20; 29:19; 30:8, 17; 36:14.

30:17). There is a qualitative distinction between the holiness of offerings and God's holiness, once again evincing the factitive versus elative distinction.

Finally, with objects as DO, the Piel occurs with objects that are set aside for priestly use (Lev 8:11) but with Hiphil with the holy things of the sons of Israel dedicated directly to Yhwh (Lev 22:2–3). Although the frequent 'I am Yhwh who sanctifies [DO]' occurs in the Piel (e.g., Exod 31:13), in contrast, the Hiphil refers to the consecration of the firstborn to Yhwh (Num 3:13; 8:17), Yhwh consecrating the temple (1 Kgs 9:3, 7; 2 Chr 2:3; 7:16, 20), and Yhwh setting Jeremiah apart to be a prophet (Jer 1:5). All of these are best understood as elatives.

פקד

Finally, we come to **פקד**, which presents us with a new challenge: unlike other roots we have examined, there is neither a consensus as to the meaning of the Qal nor do the stems seem to relate to one another clearly. Indeed, Speiser has noted, "There is probably no other Hebrew verb that has caused translators as much trouble as *pqd*"[116]—despite the fact that this word is attested in most, if not all, of the ancient Semitic languages[117] and the seeming legion of studies devoted to it.[118]

Qal

The Qal stem of **פקד** occurs 154 times in the Hebrew Bible.[119] Its usage can be divided into two main groups: (1) God as Agent and (2) human being as Agent. They have the same argument structure (two arguments), semantic roles (Agent and Patient), and situation aspect (Accomplishment) but seemingly disparate meanings, as indicated in Table 5.

With God as Agent, **פקד** expresses an *intense personal attention, including careful inspection, which triggers appropriate action, whether positive (i.e., assistance) or negative (i.e., punishment).* Assistance is typically indicated by the construction **פקד** + DO /person/ and punishment whereas punishment is typically expressed by the construction **פקד** + DO /sin/ + **עַל** + /person/.

116. E. A. Speiser, "Census and Ritual Expiation in Mari and Israel," *BASOR* 149 (1958) 21.

117. The root is attested in Hebrew, Akkadian, Ugaritic, Syriac, Mandaic, Classical and Modern Arabic, Modern South Arabian (Soqoṭri), and Ethiopic (Geʿez, Amharic, Tigre, Harari, Tigrinya, and Gurage). Its attestation in Old South Arabian is disputed because the dissimilation of emphatics in the presence of other emphatics (as in Geer's Law) could potentially account for the root *pqḍ*.

118. The literature on the root **פקד** is vast. See, e.g., Gunnel André, "**פקד**," *TDOT* 16:50–63; Willy Schottroff, "**פקד**," *TLOT* 2:1018–31; Tyler F. Williams, "**פקד**," *NIDOTTE* 3:657–63; Gunnel André, *Determining the Destiny: PQD in the Old Testament* (ConBOT 16; Lund: Gleerup, 1980); Stuart Creason, "*PQD* Revisited," in *Studies in Semitic and Afroasiatic Linguistics Presented to Gene B. Gragg* (SAOC 60; ed. Cynthia L. Miller-Naudé; Chicago, IL: Oriental Institute of the University of Chicago, 2007) 27–42; Jack Boyd Van Hooser, *The Meaning of the Hebrew Root* **פקד** *in the Old Testament* (ThD thesis, Harvard University, 1962).

119. Gen 21:1; passim.

Table 5. Semantic Analysis of the Distribution of פקד *in the Qal*

Agent		*Patient*	*Marking*	*Effect/Duty*	*Reference*
God		*Human Beings*			
		Sarah	אֵת	birth of Isaac	Gen 21:1
		Israel	עַל	appointment of Joshua	Num 27:16
		Israel	בְּ	judgment	Jer 9:8
		Amalekites	אֵת	destruction	1 Sam 15:2
		kings of Babylon & Assyria	אֶל	destruction of land	Jer 50:18
		humanity	none	judgment	Exod 20:5
		humanity	objective pronominal suffix	appropriate action	Job 7:18
		Things			
		pride of Sennacherib	עַל	army to be destroyed	Isa 10:12
Human Beings	*God*				
	Israel	God	objective pronominal suffix	seeking help	Isa 26:16
	Human Beings				
	Moses	men older than 20 years	אֵת	assignment to military service	Num 1:3
		Aaron and his sons	אֵת	assignment to priestly service	Num 3:10
		Levites older than one month	אֵת	assignment to levitical service	Num 3:15
		Gershonites	עַל	regulations for priestly service	Num 4:27
	Joshua	troops	אֵת	roll call of troops	Josh 8:10 [a]
	Saul	troops	objective pronominal suffix	roll call of troops	1 Sam 11:8
	military officials	troops	none	roll call of troops	1 Sam 14:17
	Ish-Bosheth	Abner	עַל	accusation of offense	2 Sam 3:8
	Israel's leaders ("shepherds")	people of Israel	אֵת	dereliction of duty	Jer 23:2 [b]
	Things				
	Moses and Aaron	tabernacle articles to be carried	אֵת	levitical duties	Num 4:32
	military officers	command	בְּ	military duties	Deut 20:9

a. 1 Sam 13:15 includes the number of the troops.
b. Notice the word-play: due to their פקד dereliction of duty, God will פקד these false shepherds.

With a human being as Agent, פקד likewise expresses *inspection or assessment, often regarding one's assigned duties* (whether military, royal, or priestly). Sometimes it simply denotes inspection (e.g., 1 Sam 17:18), but most often it refers to the counting of people for their assigned duties. The Qal of פקד in these instances does not seem to mean 'to muster' because the verb אסף instead describes this act within military contexts (e.g., Judg 20:11, 14). This is why פקד is so frequently associated with numbers (e.g., Num 1:3, passim; 1 Sam 11:8; 13:15).[120]

In other instances, the Qal indicates assignment to a particular duty within existing authority structures (i.e., their duty does not include authority to assign responsibilities to others). In this usage פקד is followed by the DO, which marks the one who is assigned to the duty, and then is followed by the preposition עַל or אֵת, which marks the duty itself.

There are some curious usages, however, that do not fit the pattern evident above. The usage in 2 Kgs 5:24, 'leave in safekeeping', does not comport with the above and resembles more the significations ascribed to the Hiphil. In addition, Judg 15:1 seems to be an outlier but may refer to marital duty.

Niphal

The Niphal of פקד occurs twenty-one times.[121] In a few passages, it has the medio-passive of the Qal stem's meaning (Num 16:29; 31:49; Isa 24:22; 29:6; Jer 23:4; Prov 19:23). However, most of the occurrences of the Niphal revolve around the idea of someone being missing or a place being empty (1 Sam 20:18, 25, 27; 1 Kgs 20:39; 2 Kgs 10:19). In these cases, the Niphal could potentially be glossed as 'to be missing'. But how would this be related to the meanings associated with the Qal? If someone or something is regularly scrutinized, their absence will be noted. Thus, these instances of the Niphal of פקד could just as easily be understood as the medio-passive meaning: 'to be noticed, be noted'. Now, having arrived at a second plausible gloss, we are no closer to the meaning of the Niphal, because a workable gloss should not be confused with the meaning of the Hebrew term.[122]

Numbers 16:29 suggests a third line of analysis. Moses' poetic restatement of the first part of the verse (which refers to death) refers to death as well: 'the *visitation* of all mankind is *visited* upon them', a noun and the Niphal from פקד, respectively. A casualty of war would be missing from the ranks when the troops were inspected (e.g., Num 31:49). From this point, its meaning could be extended to being missing in general and not just because of death.

120. Brian Webster, *The Cambridge Introduction to Biblical Hebrew* (Cambridge: Cambridge University Press, 2009) 231–33.

121. Num 16:29; 31:49; Judg 21:3; 1 Sam 20:18 [2×], 25, 27; 25:7, 21; 2 Sam 2:30; 1 Kgs 20:39 [2×]; 2 Kgs 10:19 [2×]; Isa 24:22; 29:6; Jer 23:4; Ezek 38:8; Prov 19:23; Neh 7:1; 12:44.

122. Webster, *Cambridge Introduction to Biblical Hebrew*, 233.

At any rate, the argument structure, semantic roles, and situation aspect of the Niphal seem clear: one core argument, Patient, and Achievement, respectively.

Piel

The Piel of this root occurs only in Isa 13:4, in a clear military context in which Yhwh musters an army of nations. There are two core arguments: יְהוָה צְבָאוֹת 'Yhwh of armies' has the role of Agent, and צָבָא מִלְחָמָה 'battle army' has the role of Patient; and the situation aspect is Accomplishment. Because the Piel here appears to be identical to the Qal of פקד in terms of its semantic roles, situation aspect, and syntactic structure, we must ask why the Piel is used rather than the Qal. Perhaps the Qal, which is used of *men* mustering *men* for battle, is not adequate for *God* mustering *nations* for battle (which is a far larger mustering and of a different order). Nevertheless, the reason for the Piel's usage in Isa 13:4 is not entirely clear.

Pual

There are two forms of this root, found in Exod 38:21 and Isa 38:10, and they are typically considered Puals, but both are probably old Qal passives. In these two instances, they have the same semantic role (Patient), argument structure (one core argument), and situation aspect (Achievement) as the Niphal.[123]

Hithpael/Hothpaal

פקד occurs four times in the Hithpael stem. All are found in the same context of the tribes of Israel mustering together for battle (Judg 20:15 [2×], 17; 21:9). The argument structure (one core argument), semantic roles (Patient), and situation aspect (Achievement) are like that of the Niphal and could be understood as a middle, similar to verbs of gathering. However, because אסף is used to express the act of gathering within these contexts, and because פקד is frequently associated with counting, in these instances פקד could also mean 'to count for oneself'. The Hithpael would then, in these cases, have the expected reflexive sense.

In addition, פקד occurs four times as a Hothpaal without the expected duplication of the middle radical (Num 1:47; 2:33; 26:62; 1 Kgs 20:27). Like the Hithpael, these four instances appear to have the same argument structure (one core argument), semantic roles (Patient), and situation aspect (Achievement) as that of the Niphal. It is possible that the Hothpaal is used in place of the Hithpael for dialectal reasons, but it is also possible that this unusual stem was used iconically to highlight certain signal differences. In the three passages from Numbers, the Levites were not to be assigned military duty—they were not to be counted in

123. The doleful words from Hezekiah's prayer of lament in Isa 38:10 are riveting when understood in the sense we are hinting at here. The king is saying that he expects to be assigned duty at the gates of Sheol after he goes [i.e., dies]—a duty he is not permitted to neglect!

the military mustering as other men over twenty were—so the author used this unusual form in a sense mimicking the unusual exclusion of the Levites from the army (Num 1:47, 2:33, 26:62). Similarly, in 1 Kgs 20:27, there is a difference between the massive mustering of Ben-Hadad's armies (expressed with the Qal), ordered by Ben-Hadad himself, and the pitifully small mustering of Ahab's men (expressed with the Hothpaal), without any mention of Ahab, so the author chose the Hothpaal—a very different stem—to dramatically emphasize this difference.

Hiphil

The Hiphil occurs twenty-nine times.[124] It has three arguments, with the semantic roles primary Agent, secondary Agent, and Patient. Its situation aspect is Achievement, and its logical structure could be understood in this way: the primary Agent assigns a secondary Agent a duty that involves his authority to assign duties to others. This verb differs from the Qal, which is also used to assign authority, in that the Hiphil describes the assigning of a completely new authority (i.e., their duty includes authority to assign responsibilities to others), not the assigning of responsibility within an already-existing authority structure as the Qal does.[125]

Hophal

The Hophal occurs eight times, six times as a participle (2 Kgs 22:5, 9; 2 Chr 34:10, 12, 17) and twice as a finite verb (Lev 5:23; Jer 6:6). All instances except Jer 6:6, which functions as the passive of the Qal ('to be punished'), are passives of the Hiphil meaning 'to assign new authority'.

Summary on פקד

The concept that the two meanings of the Qal and those of the derived stems seem to have in common is *carefully scrutinizing a situation, which involves inspecting and assessing it, and then acting appropriately commensurate with the vested authority*. Sometimes, the resulting action is to assist, sometimes it is to punish, other times it is to assign responsibilities or to delegate various levels of authority;[126] but, most concern *various facets of duty and responsibility* (whether, for example, God's self-imposed duty to enable barren Sarah to bear the promised seed or people assigning duties to others). Nevertheless, having said these things, some usages

124. Gen 39:4–5; 41:34; Lev 26:16; Num 1:50; Josh 10:18; 1 Sam 29:4; 1 Kgs 11:28; 14:27; 2 Kgs 7:17; 25:22–23; Ps 109:6; Isa 10:28; 62:6; Jer 1:10; 36:20; 37:21; 40:5, 7, 11; 41:2, 10, 18; Ps 31:6; Esth 2:3; 1 Chr 26:32; 2 Chr 12:10.

125. An informative contrast to this effect can be seen in Gen 40:4 vs. 39:4. Joseph the prisoner can only be assigned duty under authority (and thus the Qal); Joseph the servant can be assigned duty so that he can exert authority (hence the Hiphil). Cf. Webster, *Cambridge Introduction to Biblical Hebrew*, 234–36.

126. Ibid., 228.

will resist every effort to fit them into a certain lexical mold (such as when Samson tried to effect reconciliation with his wife in Judg 15:1). But, I suspect that, in the many meanings of פקד, there is explainable polysemy rather than genuine homonymy.[127]

Conclusion

The above discussion has examined the transformational schema of the *binyanim* by means of a theoretical linguistic model. We have seen that the transformational picture for the *binyanim* is more complicated than one would expect in light of their expected functions. It would be an overstatement to aver that actual usage proves that the functions of the *binyanim* we have presented above are categorically wrong; they are an essential starting point. On the other hand, they should not be slavishly held to either; instead, our understanding of them should be tempered by actual usage, which not infrequently veers from the straight and narrow, and by grasping the nature of language, that it is not rigid but fluid and dynamic; rules are for grammarians not speakers.[128] Thus, we should not be surprised with the oddities, abnormalities, and exceptions we have noted. Nor should we be surprised that, since speakers were not obligated to use any particular stem in any particular way, the stems do not always submit to efforts to locate them in discrete categories.

Space precludes me asking many intriguing questions—let alone answering them. But hopefully the issues I have raised here will prompt a thorough revisiting of the Semitic stems—a worthy task indeed for another time and another place.

127. For the differences between these and the process by which polysemes become homonyms, see Ladislav Zgusta, *Manual of Lexicography* (Janua Linguarum: Series Maior 39; Prague: Prague Academia, 1971).

128. Brian Webster states, "Speakers try one of a limited number of forms for a meaning, and if the community accepts it, then that is what it means. Something does suggest to the speaker to try one stem or another. But, simply asking the question, 'What does this stem mean?' can make the matter sound far more rigid and static than language really can be as if it has always done the same things in the same way without other influences" (*Cambridge Introduction to Biblical Hebrew*, 252).