

## **Detecting Development in Biblical Hebrew using Diachronic Typology**

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### **1. Introduction**

Studies of Biblical Hebrew have long operated with the familiar three-stage diachronic model of Archaic Biblical Hebrew, Standard Biblical Hebrew, and Late Biblical Hebrew (e.g., Sáenz-Badillos 1993). In recent years there has been growing criticism that this tripartite model is too facile to account for the language variation found in Biblical Hebrew. Scholars have argued that at least some of the language variation in the biblical text may admit other explanations, such as diglossia (e.g., Rendsburg 1990),<sup>1</sup> or regional dialects (e.g., Rendsburg 1999, 2000), and language contact (e.g., Hurvitz 2003). These explanations, in contrast to the traditional tripartite analysis, share in common the view that the observed language variations are synchronic rather than diachronic in character. Although there is no a priori reason why the diachronic and these synchronic types of explanations should be mutually exclusive, Young, Rezetko, and Ehrensverd (2008) have argued that scribal activity has left the biblical text in such a state of disarray as to render impossible the drawing of diachronic conclusions about Biblical Hebrew from the text. As Young succinctly puts it, “We [Young, Rezetko, and Ehrensverd] claim instead that the nature of the biblical texts is such that this chronology, however, is not visible in any way that makes linguistic dating of biblical texts possible” (Young 2010: 1).<sup>2</sup> In this article I take the contrasting position that linguistics

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1 Diglossia refers to a sociologically based functional distinction in language, whereby one form is reserved for more formal uses (the “high” form) and another for less formal, everyday uses (the “low” form).

2 This statement came in direct response to comments in my previous year’s paper, which

offers usable models and methods for discerning diachronic differences in the language of the biblical text. I begin with a clarification of these contrasting positions.

## **2. Misunderstandings and differences of opinion**

Young, Rezetko, and Ehrensward (2008) have performed an inestimable service to the study of Biblical Hebrew not only by prompting a re-evaluation of entrenched positions but by pointing out some inherent weaknesses of those positions. In particular, they rightly criticize that in general studies of the language of the Bible have failed to grapple with the state of the text of the Bible. This failure to take text criticism into account is evident in discussions that appear to treat individual biblical books as dateable *in toto*, when in fact a critical analysis of the text demonstrates that there are various textual layers within the books. We are indebted to them for pointing out these blind spots, as well as for their bringing together a wealth of data and summaries of previous studies.

However, at the same time the very character of the disagreement has been muddled through some basic misunderstandings. On the one hand, these misunderstandings are ours, who have made it our task to study the language of the Bible. In particular, we have failed to always clearly distinguish between the text itself and the language represented in the text, the latter of which is the proper object of linguistic study. Citing the conflation of these two as common among historical linguists generally, Hale (2007: 22) states the distinction and its

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is the basis of this article, and led to a fruitful dialogue regarding misunderstandings and disagreements. Section 2 of this paper is largely a result of our useful dialogues at and after the sessions; references to our post-session discussions are indicated as personal communication (p.c.).

importance trenchantly:

If we are to keep this discussion coherent at all, we must carefully distinguish between the features of the text (established by philological methods) and features of the language of the text (which can be established by a *linguistic* analysis of the contents of the text ). This is not an easy task, since . . . philological and linguistic analyses show a mutual interdependence and are frequently carried out by one and the same person. However, accepting that it is necessary to distinguish between the text itself and the linguistic structures hypothesized to be evidenced in that text, the linguistics/philology contrast seems to correlate with this distinction quite well.

On the other hand, there is a misunderstanding of this same distinction on the part of Young, Rezetko, and Ehrensverd that is a product of their coming to the discussion as text-critical scholars: they have stated multiple times their central argument that linguistics cannot be used to date biblical texts (Young 2005; 2010, cited above). In light of Hale's comments (above) this claim misses the real point of contention: linguistics is not tasked with dating biblical texts; that is one of the chores of philology. Linguistics is concerned with *language* and philology with *texts*. Once this is clarified, it becomes evident that the claim about linguistics being incapable of dating biblical texts is correct, though not for the reasons that Young, Rezetko, and Ehrensverd claim, because their claim is based on the nature of the biblical text and not the character of the linguistic versus philological enterprises.

Even if one concedes that the text is as skewed by scribal activities as Young, Rezetko, and

Ehrensverd argue,<sup>3</sup> it cannot follow that the text is bereft of any useable linguistic data, only that it is more difficult to obtain that data than has sometimes been realized or admitted.<sup>4</sup>

Young, Rezetko, and Ehrensverd (2008) concede this argument to a point: they themselves argue that there is language variation in the text, and attribute it to scribal dialectal differences rather than the traditional diachronic explanation. Such a blanket explanation falls under the same censure that they have leveled at the traditional diachronic model. One

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3 This is not the place to go into a detailed critique of Young's portrayal of the text-critical consensus, except to note that if there is an "unbridgeable gap" (Young 2010) between artifact texts and earlier texts, then the text critical task is at an end. However, Young employs "original text" in his description of this "unbridgeable gap" as a straw man: while the concept of an "original" composition is problematic, text criticism is concerned with distinguishing earlier texts from later scribal changes, and in so doing isolates two distinct grammars in the text—that of the earlier writer and that of the later scribe, both of which the linguist may legitimately analyze. However, the complexity of the text does not inevitably give priority to text criticism; linguistic analysis of the language represented by the texts may inform textual criticism as much as the reverse. Hale's (2007) model of the relationship among artifact, text, and composer's grammar is too ideal to directly apply to the biblical text as Young does, though in an effort to debunk it.

4 Young's (p.c.) claim, based on Pintzuk (2005: 525), that language change and diffusion is not "directly evidenced by the literary language" of the Hebrew Bible is a case of special pleading. Pintzuk's caution that change and diffusion do not predictably or evenly pass from their primary locus in the spoken language to literary texts is certainly correct and well-heeded; but her cautionary note does not invalidate nor fundamentally alter the

cannot *a priori* rule out certain explanations of language variation as Young, Rezetko, and Ehrensverd have done with diachronic explanations; each case must be individually examined. While Young, Rezetko, and Ehrensverd have done the field of biblical studies—and particularly Hebrew linguistics—a yeoman’s service, it is not in the form of an alternative theory that explains the language variation in the biblical text, as the traditional chronological model tried to do; rather, they have given a clarion call to scrutinize the foundations and begin sifting through the data anew. If we are to proceed with such a reassessment of the data in good faith, we cannot prejudge any language variation datum as incapable of explanation by any of the possible accounts of language variation (and others) listed in the beginning of this article—including diachronic models.

To make this point, I illustrate below that some sorts of language variation attested to by the biblical text are best explained as diachronic (or chronological) change and diffusion. Given the nature of the debate, there are two *desirdata* to make my case. First, I want to find the sort(s) of language variation that are not susceptible to “imitation” (e.g., archaizing) by scribes in order to exclude intentional scribal change as an explanation for the variation. Such variation has to be of a kind that affects an entire part of the grammar system, making it increasingly (diffusion) impossible to avoid ambiguity or confusion by the employment of an earlier grammatical construction. Second, I want some external means of validating that the variation in question is more likely a diachronic change than some variety of synchronic variation. Diachronic typology provides just such a means of external validation in that it provides a wealth of data regarding typical diachronic changes in human language. In the following section I discuss in more detail diachronic typology, somewhat anticipating its practice of corpus-based historical linguistics.

application to the case of יָדַע 'know' in Biblical Hebrew.

### **3. Diachronic typology and tense-aspect-mood (TAM) systems**

Linguistic typology consists of classifying languages in terms of a given linguistic structure, and then developing generalizations regarding patterns of linguistic structures across languages (Croft 2003: 1). For example, languages may be classified based on whether or not they have a perfective verb conjugation. Based on discernible patterns of perfective verbs in TAM systems across languages, linguists have made the following generalization: perfective verbs only develop in TAM systems that already have an imperfective verb, in opposition to which the new perfective stands (Bybee, Perkins, and Pagliuca 1994: 92). Hence, in analyzing Biblical Hebrew, if we conclude that it has a perfective verb conjugation, such as the Perfect, then based on this generalization we might reasonably identify the Imperfect as an imperfective verb.

Diachronic typology, to use Croft's (2003: 233) term, represents a "dynamicization" of typology, whereby synchronic language states are reanalyzed as stages in the process of language change. Thus, the typological tasks of classification and generalization become applied in diachronic typology to the developmental axis of language structures. In other words, based on the classification of a given linguistic structure at one stage of a language, generalizations are developed regarding preceding and following stages in the development of that particular linguistic structure. Several generalizations have emerged from a variety of studies over the past quarter century about tense-aspect-mood (TAM) systems that illustrate diachronic typology. One of these Heine (2005: 594) states as, "verbal aspect categories give rise to tense categories, . . . while processes in the opposite direction are

unlikely to happen.” A more specific example, consistent with this generalization, is that imperfective and present verb conjugations develop from progressive constructions (Bybee, Perkins, and Pagliuca 1994: 91; Heine 2005: 594).

#### 4. Stative encoding and aspect-tense shift

A well-known linguistic variation in Biblical Hebrew is the predicate “split-encoding” of stative adjectives, such as מלא, כבד, and זקן. This small, closed class of adjectives when used predicatively may be encoded either like verbs or like nouns; in the latter case they are copular complements.<sup>5</sup> These alternatives are illustrated in (1).

##### (1) Stative encodings

a. Verbal encoding:

אָנִי זָקֵן בְּיָמַי

‘I am old, advanced in days.’ (Josh 23:2)

b. Nominal encoding:

וְאַבְרָהָם וְשָׂרָה זָקֵנִים בְּיָמַי

‘Now Abraham and Sarah (were) old, advanced in days. (Gen 18:11)

My characterization of the stative as a small, closed class of adjectives is justified by a comparison of the number and frequency of stative pattern adjectives versus other

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5 The copula may be either null/covert (i.e., a “verbless” clause) or phonologically realized/overt (e.g., הִיהָ/יֵשׁ/אִין/הוּא). Since there is no discernible pattern to the phonological expression of a supporting copula, I have not included the further distinction that Stassen (1997: 12) makes between nominal (null copula) and locative (overt copula) expressions, but group both together as Biblical Hebrew’s “nominal strategies.” For a more complete application of Stassen’s theory to the encoding of Biblical Hebrew stative and participle, see Cook (2008).

adjectival patterns in Biblical Hebrew and from the pattern's lack of productivity in post-biblical Hebrew; that is, no new split-encoded stative-pattern adjectives appear in post-biblical Hebrew. However, the question is whether the decline of the stative adjective is diachronically significant, or whether, for instance, the post-biblical Hebrew data represent a different dialect than Biblical Hebrew, in which the stative pattern was marginal at best. In order to answer this question, I first need to construct a larger diachronic-typological argument that will provide a framework in which to answer this question.

#### 4.1. *The diachronic-typological argument*

My diachronic-typological argument involves three interrelated generalizations. The first, which I mentioned above in illustrating diachronic typology (§3), is that TAM systems tend to develop from aspectual categories and oppositions towards tense ones rather than the reverse (Heine 2005: 594). The second generalization is that perfective and past conjugations are distinct in their interaction with stative predicates, so as to create a marked opposition (see Bybee, Perkins, and Pagliuca 1994: 95): the unmarked member of the opposition is the perfective with stative predicates, which may express either present or past states; the marked member of the opposition is the past with stative predicates, which may only express past states. This opposition characterizes the Perfect and Past Narrative conjugations in Biblical Hebrew, as illustrated in (2).

##### (2) The stative with Perfect and Past Narrative

a. Qal Perfect + stative = present state

יְהִי לִי לֵבָי וְלֹא־רָמוּ עֵינַי

'Yhwh, my heart is not high / my eyes are not elevated.' (Ps 131:1).

b. Qal Perfect + stative = past state

וְלֹא־כָגַמְלָ עָלָיו הַשִּׁיב יְחִזְקִיָּהוּ כִּי גָבַהּ לְבוֹ

‘But Hezekiah did not respond according to the benefit to him, because his heart was high.’ (2 Chr 32:25).

c. Qal Past Narrative + stative = past state

וַיִּתְיַצֵּב בְּתוֹךְ הָעָם וַיִּגְבֶּה מִכָּל־הָעָם

‘And he stood in the midst of the people and he was taller than all the people.’

(1 Sam 10:28)

The third generalization Stassen (1997: 347) terms the “tensedness universal of adjective encoding.” In his study of intransitive predication, Stassen shows a correlation between the choice of encoding strategy for adjectival predicates and whether a language’s TAM system is aspectual or tensed: languages which have predominately aspectual categories tend to encode adjectival predicates according to their verbal strategy, whereas languages with predominately tense categories tend to encode adjectival predicates according to one or more of their nominal strategies (see Stassen 1997: 347–57).<sup>6</sup>

These three generalizations are interrelated: as a language’s TAM system shifts from aspectual towards tense, as may happen according to the first generalization, its aspectual categories decline in productivity or may shift in meaning. For example, a perfective conjugation may become past tense; such a shift could be discerned by its pattern of interaction with statives as outlined in the second generalization. As the shift occurs, the strategies for expressing present states also shift, based on the tensedness parameter, given as the third generalization.

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6 These implicational correlations can also be reversed so that if a language uses verbal encoding for its adjectives it is likely aspect-prominent, and if it uses nominal encodings for its adjectives it is likely a tense-prominent language (see Cook 2008).

#### 4.2. *The data*

The foregoing diachronic-typological argument points to the decline of the stative in Hebrew as diachronically significant. But while this decline is easily appreciated through a comparison of Biblical and post-biblical Hebrew, the question remains to what extent this diachronic shift is measurable *within* the Biblical Hebrew corpus. The obvious place to look would be the variation of verbal and nominal encoding of stative predicates. Unfortunately we face the obstacle of a dearth of data, which is compounded by having to exclude the ambiguous masculine singular form.<sup>7</sup> Thus, among 60 of the most frequent stative verbs, there are only 12 that occur frequently enough to exhibit unambiguous split encoding. These 12 verbs provide exhibit 183 instances of unambiguous verbal encoding and 57 occurrences of unambiguous nominal-encoded predicates. The sparse data cautions us against drawing hasty conclusions. However, the following observations are warranted with reference to the chart in (3).

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7 That is, the masculine singular nominal encoding and Qal third-masculine singular verbal encoding (if both occur) are morphologically identical (e.g., פָּבַד) and syntactically identical in the absence of an overt copula.

(3) Verbal versus nominal encodings of 12 stative adjectives<sup>8</sup>

Book	Verbal	Nominal	Book	Verbal	Nominal
Psalms	24	2	Zech	3	0
Isa 1–39	18	0	Mic	3	1
Deut	18	2	Kgs	3	8
Jer	17	4	Hos	2	0
Ezek	14	5	Prov	2	0
Job	12	1	Mal	2	0
Lev	11	7	Lam	2	2
Gen	9	1	Zeph	1	0
Sam	8	3	Jon	1	0
Isa 40–66	7	1	Chron	1	0
Judg	6	0	Ruth	1	0
Joel	4	0	Neh	1	0
Josh	4	1	Nah	1	0
Exod	4	3	Num	1	0
Hab	3	0	Qoh	0	1

First, 7 books (Amos, Obadiah, Haggai, Song, Esther, Daniel, Ezra) offer no data and another 8 show just one example—either nominal or verbal. It may reflect the general decline in the use of the stative adjective patterns that 11 of these 14 books are philologically datable to the exilic or post-exilic periods (Jonah, Chronicles, Ruth, Nehemiah, Qohelet, Song of Songs, Obadiah, Ezra, Haggai, Esther, Daniel).<sup>9</sup> Second, and by contrast,

8 The 12 statives are שׁמח, קרב, קלל, מלא, כבד, ירא, יבש, טמא, חפץ, חדל, זקן, דלל.

9 Young’s (p.c.) complaint that analyses of Biblical Hebrew fail to distinguish textual layers in the books may have a some validity, but the convention of referencing datum by book, chapter, and verse, as well as the fact that the books have long been recognized as distinct compositions from one another, some with clear *termini post quem* based on their content (e.g., post-exilic Ezra-Nehemiah and Chronicles) make continued reference to data by book convenient, at least at this level of preliminary analysis. Note how my

most of the books with a majority of verbal encoding contain material philologically datable to the pre-exilic period (14 of 21: Genesis, Exodus, Leviticus, Deuteronomy, Joshua, Judges, Samuel, First Isaiah, Jeremiah, Hosea, Micah, Habakkuk, Psalms, Proverbs).

A strategy to increase the database is to examine the general decline of verbally encoded statives in the Qal Perfect between the “Standard Biblical Hebrew” corpus of Genesis through 2 Kings and those traditionally classified as “Late Biblical Hebrew” (Ezra, Nehemiah, Chronicles, Haggai, Zechariah, Malachi, Esther, Daniel, and Qohelet).<sup>10</sup> The frequency of 60 statives in Qal Perfect as a percentage of all Qal Perfects in these books show an almost equal

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statements here illustrate the requisite give and take between linguistic analysis and philology in investigating these matters; neither can or should work in isolation.

<sup>10</sup> I have placed these terms (Standard and Late Biblical Hebrew) in scare quotes because of their centrality to the dispute over whether the language represented in these texts is datable. I am convinced, however, that we should interact with the previous consensus (albeit no longer naïvely) rather than rejecting it wholesale, which has only lead Young, Rezetko, and Ehrensverd (2008) to conclude that no diachronic observations about the text are possible. Certainly if two texts differ chronologically on philological grounds there is every possibility that differences in their language are diachronic. Here I do not intend to defend or validate the traditional diachronic scheme, but I am using it as a foil to demonstrate that the variations seen in the Hebrew stative occurrences and encodings are likely diachronic in character inasmuch as they do not completely fly in the face of conventional wisdom regarding the relative dating of these texts, as the chart in (6) below demonstrates.

amount between the two groups of books—about 22% of all perfects are stative verbs.<sup>11</sup>

However, the data is skewed by the increase of הִיָּה, which jumps from 8% to 12.5% frequency in the data. Given the shift of the Hebrew TAM from aspectual categories towards tense, this increase is fully expected given that the copula is a main strategy for overtly signaling tense.<sup>12</sup> If we set aside this single stative verb, the data shows a decline in frequency from 14% in the SBH corpus to 9% in LBH.<sup>13</sup>

Yet a third means of examining the data is to chart the decline of present state expression by stative verbs in the Qal Perfect conjugation. To do this we must identify the “new” strategy or strategies employed for the expression of present states for each stative verb. Here I illustrate with יָדַע because of its relative frequency (over 300 occurrences), though I have found similar but less consistent results in analyses of other stative verbs.<sup>14</sup> The shift from present to past state is illustrated in (4a–b), while the examples in (4c–d) illustrate the

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11 Verheij (1990: 32) has demonstrated that there is a general decline in the frequency of verbal predications between Samuel-Kings and Chronicles. Therefore, it is preferable to measure the data in terms of the frequency of the stative adjective in Qal Perfect as a percentage of all Qal Perfects in these books.

12 This rise is further confirmed by the frequency of הִיָּה in the post-BH literature: 83 times in Ben Sira, 945 times in Qumran, and 1738 times in Mishnah, based on the Accordance databases.

13 This represents an actual decrease of 457 examples (564 versus 107 occurrences).

14 I have analyzed מָלַא, חָפַץ, אָהַב, and שָׁנָא with less consistent results probably due to the size of the data.

main alternative strategies: an active participle encoding and an Imperfect verbal encoding.<sup>15</sup>

(4) Encoding strategies and the interpretation of ידע

a. Qal Perfect = present state

כִּי יָדַע עַבְדְּךָ כִּי אֲנִי חָטָאתִי

‘For your servant knows that I have sinned.’ (2 Sam 19:21; see also 2 Sam 14:22)

b. Qal Perfect = past state

כִּי־יָדְעוּ הָאֲנָשִׁים כִּי־מָלְכָנִי יְהוָה הוּא בָרַח

‘For the men knew that he was running away from Yhwh.’ (Jon 1:10)

c. Qal Active Participle = present state

כִּי יוֹדַע אֲנִי כִּי בְשָׁלִי הַסַּעַר הַגָּדוֹל הַזֶּה עָלִיכֶם

‘For I know that on my account this storm has (come) upon you.’ (Jon 1:12)

d. Qal Imperfect = present state

כִּי־פָשַׁעִי אֲנִי אֹדֵעַ וְחַטָּאתִי נִגְדִי תָמִיד

‘For I know my transgressions / and my sin is continually before me.’ (Ps 51:5)

The data appear in (5) arranged in ascending frequency of new constructions as a percentage of all occurrences in the data. The list excludes the nine books that offer no relevant data.<sup>16</sup>

15 For simplicity sake I am excluding lexical alternatives, which are in any case much less frequent than the strategies examined here; for example, Hifil of בִּין (Job 28:23).

16 Leviticus (it includes 5 irrealis *qatal* forms of ידע), Obadiah, Habakkuk, Haggai, Malachi, Ruth, Lamentations, Ezra, and Nehemiah.

(5) Old forms and new forms of ע״י expressing a present state

Book	Perf. <sup>17</sup>	Partic. <sup>18</sup>	Impf. <sup>19</sup>	Freq. %	Book	Perf.	Partic.	Impf.	Freq. %
Song	1	0	0	0%	Jer	17	1	3	19%
Mic	1	0	0	0%	Sam	17	3	2	22.7%
Dan	1	0	0	0%	Isa	11	1	3	26.7%
Judg	3	0	0	0%	Job	20	0	8	28.6%
Ezek	3	0	0	0%	Ps	22	6	6	35.3%
Amos	3	0	0	0%	Prov	6	3	4	53.8%
Zech	3	0	0	0%	Chron	2	1	3	66.7%
Hos	4	0	0	0%	Jon	1	2	0	66.7%
Num	4	0	0	0%	Qoh	5	12	4	76.2%
Exod	11	0	0	0%	Est	0	2	0	100%
Deut	10	0	1	9.1%	Nah	0	1	0	100%
Gen	17	2	0	10.5%	Joel	0	1	0	100%
Kgs	22	1	3	15.4%	Zeph	0	1	0	100%
Josh	5	1	0	16.7%	TOTAL	189	38	37	28.41%

17 Gen 4:9; 12:11; 18:19; 20:6; 21:26; 22:12; 27:2; 29:5; 30:26, 29; 31:6; 39:8; 43:22; 44:15, 27; 47:6; 48:19; Ex 3:7, 19; 4:14; 5:2; 9:30; 18:11; 23:9; 32:1, 22–23; 33:12; Num 10:31; 11:16; 20:14; 22:6; Deut 1:39; 3:19; 7:15; 9:2; 22:2; 28:33; 29:15; 31:21, 27; 34:6; Josh 2:4–5, 9; 14:6; 22:31; Judg 15:11; 17:13; 18:14; 1 Sam 17:28; 20:3, 30; 22:15; 24:21; 25:11; 28:9; 29:9; 2 Sam 1:5; 2:26; 3:25; 7:20; 14:22; 17:8; 19:7, 21, 23; 1 Kings 1:11, 18; 2:5, 15, 44; 5:17, 20; 8:39; 17:24; 22:3; 2 Kings 2:3, 5; 4:1, 9; 5:15; 7:12; 8:12; 9:11; 17:26; 19:27; Is 1:3; 29:12; 37:28; 42:16; 44:18; 56:10–11; 59:8, 12; 63:16; Jer 1:6; 4:22; 5:4–5; 9:2; 10:23, 25; 11:19; 12:3; 14:18, 20; 15:15; 17:16; 18:23; 29:11; 33:3; 48:30; Ezek 11:5; 17:12; 37:3; Hos 5:3–4; 7:9; 8:2; Amos 3:2, 10; 5:12; Jonah 4:11; Mic 4:12; Zech 4:5, 13; 7:14; Psa 14:4; 20:7; 31:8; 35:11; 40:10; 41:12; 50:11; 53:5; 56:10; 69:6, 20; 71:15; 73:11; 79:6; 82:5; 91:14; 119:75; 135:5; 139:2, 4; 140:13; 142:4; Job 9:2, 28; 10:13; 12:9; 13:2, 18; 15:9; 19:25; 20:4; 21:27; 22:13; 23:10; 30:23; 32:22; 34:33; 35:15; 38:21, 33; 39:1; 42:2; Prov 4:19; 7:23; 9:13, 18; 23:35; 30:18; Song 6:12; Eccl 3:12, 14; 4:13; 7:22; 10:15; Dan

A wide-spread confusion in discussions of linguistic data and dating of biblical texts is between linguistic change with linguistic diffusion. Responding to this confusion in historical linguistics generally, Hale (2007: 33) explains that change is strictly intergenerational, “when transmission is flawed with respect to a some features.” Diffusion is the spread of change among speakers, and is not instantaneous but exhibits a distinct pattern that has been described as an S-curve: the diffusion of the new construction is gradual in the beginning, accelerates in the middle stage, and slows again as it gains ascendancy at the close of the process (Pintzuk 2005: 512). Thus, we fully expect to find old and new constructions side-by-side in the data, but we also expect to find an increasing frequency of the new form in the shape of an S-curve. The graph in (6) charts the data from (5) against the plot of an ideal S-curve. I have excluded from this chart the six books that offer just one example as statistically less significant (i.e., it is difficult to draw any conclusions from these).

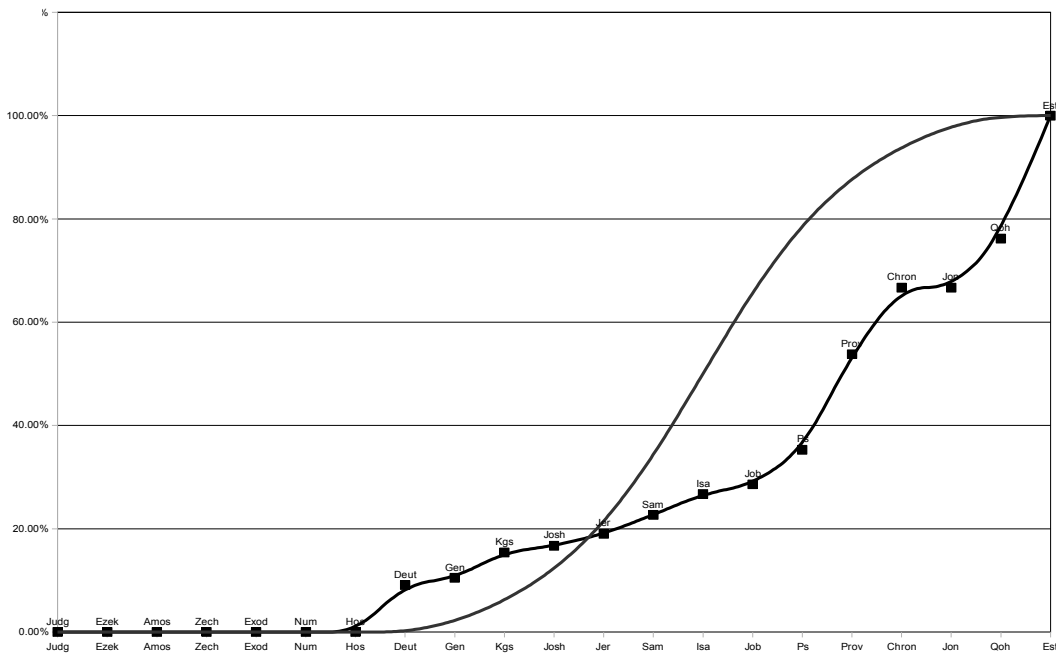
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10:20; 2 Chr 2:7; 25:16 (2 others from Chr are excluded since they are paralleled in the Samuel-Kings source text).

18 Gen 3:5; 33:13; Josh 22:22; 1 Sam 23:17; 2 Sam 12:22; 17:10; 2 Kings 17:26; Is 29:15; Jer 29:23; Joel 2:14; Jonah 1:12; 3:9; Nah 1:7; Zeph 3:5; Psa 1:6; 37:18; 44:22; 90:11; 94:11; 139:14; Prov 12:10; 14:10; 24:22; Eccl 2:19; 3:21; 4:17; 6:12; 8:1, 7, 12; 9:1, 5; 11:5–6; Esth 4:11, 14; 2 Chr 2:7.

19 Deut 20:20; 1 Sam 20:9; 2 Sam 3:38; 1 Kings 3:7; 8:39; 18:12; Is 40:21; 55:5; 58:3; Jer 5:15; 13:12; 40:14; Psa 35:8; 39:7; 51:5; 73:22; 92:7; 138:6; Job 8:9; 11:8; 15:9; 36:26; 37:5, 15–16; 38:5; Prov 24:12; 27:1; 28:22; 30:3; Eccl 9:12; 10:14; 11:2, 5; 2 Chr 6:30; 20:12; 32:13.

(6) Frequency of new construction expressing a present state for ידע



Notice that the frequency of new and old in those books that exhibit both are fairly consistent with the philological dating of the various books: at the low end are notably a majority of the books from the Primary History (Genesis, Exodus, Numbers, Deuteronomy, Joshua, Samuel, and Kings) along with the prophetic books of Hosea, Jeremiah, and Isaiah; at the mid-point we find the mixed poetic material of Job, Psalms, and Proverbs; and at the high end we find Chronicles, Jonah, and Qohelet. This analysis should, of course, be further refined by distinguishing among blocks of material within the different books and by including post-Biblical Hebrew data.<sup>20</sup> However, it is a promising beginning: promising

<sup>20</sup> Some general statistics on ידע in the post-biblical materials are as follows: Ben Sira has 3 Perfects (present) versus 5 Participles and 5 Imperfects; the Qumran data is large enough to require separate treatment (122 Perfects; 72 Participles; 71 Imperfects); the Mishnah shows a clear preference for Participle (112 times) versus 51 Perfects and a 16 Imperfects.

inasmuch as it does not depart radically from the received wisdom of philological dating of these books; a beginning in that we need to begin to move forward with the data, plotting each individual phenomenon in a similar manner in order to cautiously and securely build up a picture of the diachronic development of BH.<sup>21</sup>

## 5. Conclusions

In conclusion, no one will deny that the linguistic data of BH are difficult. For this reason not only must we be cautious in drawing diachronic conclusions from them, but at the same time we should not quickly give up the enterprise, as has been suggested. Other possibilities may present themselves for drawing meaningful conclusions from the data. Among such possibilities I have examined how diachronic typology serves to set up expectations of the data that make the observed variations more meaningful.

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21 With regard to absolute dating, one would want to rely upon the relatively more fixed dates of the epigraphic texts. Unfortunately, they provide little help with regard to the stative, which are almost wholly lacking in the pre-exilic texts. It is only somewhat confirmatory that there are three instances in the pre-exilic epigraphic texts of  $\text{ׁוּ}$  conjugated (unambiguously) in the Perfect (Arad 40:9; Lachish 2:6; 3:8), two of which clearly express present states (Lachish 2:6; 3:8).

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