Artikel

The Hebrew Verb: A Grammaticalization Approach[1]

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1 Introduction

The study of the Hebrew verbal system appears to have reached an impasse. Most scholars adhere almost religiously to either the 'aspectual school' (e.g., Ewald 1879; Driver 1892 [1998]; Rundgren 1961; Waltke and O'Connor 1990; Meyer 1992) or some variety of the 'tense school' (e.g., Blake 1951; Kuryłowicz 1972, 1973; Revell 1989; Zevit 1988, 1998); 'conversions' between schools are rare and the rhetoric is often polemical. Tense theorists refer to permutations of the Ewald-Driver aspectual theory as "outdated and unrealistic" (Rainey 1986:366), and claim that an aspectual system, in which the two primary verb forms (*qatal* and *yiqtol*) function in all three temporal spheres, would be "uneconomical" and "in danger of short-circuiting" (Zevit 1988:30). However, examples of *yiqtol* in past time contexts (e.g., Gen 2:6; Exod 19:19), which presumably make the Hebrew verbal system uneconomical from an aspectual viewpoint, make it manifestly contradictory as a tense system. For this reason, tense theorists have had to go to great lengths to explain away such examples (e.g., Zevit 1988:30-31; Joosten 1999:23-25).

Eschewing the partisan arguments between proponents of tense and aspect, some scholars have retreated to the relative calm of discourse analyses that discount or completely dismiss the semantics of the Hebrew verbal forms (e.g., Longacre 1989; Niccacci 1994; Talstra 1997; Baayen 1997). According to discourse theories, the Hebrew verb forms (and verbs in languages generally) serve primarily or solely to signal the type of discourse in which they occur (e.g., Longacre 1989:59; see also Weinrich 1994:30 and Schneider 1982:208). However, discourse theories have been criticized on two counts: first, for being inherently circular (one must, presumably, independently determine the discourse type in order to determine the constellation of verb forms characteristic of the type, but then to what end do the verb forms mark the discourse type?); and second, for confusing literary or discourse function with grammatical meaning (Bache 1985:22-24; Comrie 1986:21; Hatav 1997:21).[2]

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1 This article is an expanded version of a paper entitled "Tense, Aspect, and Modality and the Biblical Hebrew Verb" presented in the Linguistics and Biblical Hebrew section at the SBL annual meeting, Denver, Co., November 19, 2001. I am grateful to Cynthia L. Miller and Robert D. Holmstedt for their valuable comments and suggestions on both versions. A more complete analysis of these issues is found in my dissertation (Cook 2002).

2 Because of the general discounting of verbal semantics by discourse analysts, their models of the Hebrew verb require a separate critique, and are not treated any further here.

Many recent studies, however, have resisted being either reductionist or dismissive of the semantics of the Hebrew verb. These theories are characterized by their employment of multiple parameters to describe the Hebrew verbal system, including tense, aspect, modality, and discourse function (e.g., Gropp 1991; Buth 1992; Rattray 1992; DeCaen 1995; Hendel 1996; Endo 1996; Joosten 1997; Hatav 1997; Peckham 1997; Gentry 1998; Goldfajn 1998). While some of these studies have advanced our understanding of the Hebrew verb (e.g., Joosten 1992; Hendel 1996; Gentry 1998; Hatav 1997), others appear only to move the discussion to new heights of obfuscation (e.g., DeCaen 1995; Peckham 1997; on Peckham's model, see Tropper 1999).

Three main factors appear to have contributed to the present impasse. First, many theories expect that the Hebrew verbal system should be unrealistically symmetrical in terms of form and meaning. Many Hebraists (and linguists) would still affirm Bolinger's view that "the natural condition of language is to preserve one form for one meaning, and one meaning for one form" (Bolinger 1977:x). However, studies of grammaticalization and language variation have demonstrated that this view is idealistic: languages often have multiple focal meanings/functions for individual forms as well as multiple grammatical constructions operating in a single semantic domain (see Hopper and Traugott 1993:1-3). Although a "basic" or "primary" meaning may be determined for a particular verb form, the form is not thereby impeded from expressing other temporal, aspectual, or modal nuances typical of verbal systems, in addition to discourse-pragmatic functions. However, such "secondary" meanings must be distinguished from the primary meaning(s) and explained in terms of the interaction of verbal meaning and context (Comrie 1985:29). The grammaticalization approach introduced below presents principles by which such form and meaning asymmetries can be explained and taken into account in a semantic model.

Second, two opposing factors have created a methodological dilemma in studies of the Hebrew verb. On the one hand, post-Saussurean linguistic tradition upholds the principle that grammatical description should be synchronic. On the other hand, the most important datum for understanding the Hebrew verb derives from diachronic studies of the Semitic verb, i.e., the recognition of homonymy between *yiqtol* (<**yaqtulu*) and *(way)yiqtol* (<**yaqtul*). Out of allegiance to the post-Saussurean ideal of synchronic grammar description, some scholars have either ignored or denied the existence of homonymy between these forms and have thus been led to develop novel, but ultimately marginal, models of the Hebrew verb (e.g., Michel 1960; Kustár 1972). Other scholars, while claiming on principle to treat the verb forms synchronically, have nevertheless surreptitiously incorporated this important diachronic datum in their models (e.g., Zevit 1988; Gropp 1991). A grammaticalization approach rejects a sharp dichotomy between synchrony and diachrony, allowing the data from both axes to inform a semantic model of the Hebrew verb.

Finally, claims concerning 'the' defining semantic parameter(s) in the Hebrew verbal system are generally posited as self-evident, based on an analysis of the Hebrew data alone. Dogmatically holding to one or another model, the debate over the Hebrew verb is often reduced simply to who can force more 'anomalous' examples into their *a priori* model. In the following treatment, therefore, typological data are drawn upon that characterize typical aspect-, tense-, and modal-prominent languages

as external validation for the argument made here concerning the primary semantic parameter in the Hebrew verbal system.

In the following section a grammaticalization approach is presented that addresses the issue of form-meaning asymmetries in language systems and the synchrony-diachrony debate as a means of escaping the impasse of current semantic proposals of the Hebrew verbal system. Although this article is primarily constructive, the introductory discussion of tense, aspect, and modality in section three not only defines these concepts but surveys the ways in which they have been employed in past studies of the Hebrew verb. Finally, an analysis of the grammaticalization and semantic inter-relationship of the Hebrew verb forms (excluding infinitives, imperative, and jussive/cohortative) is presented in section four and the conclusions of this study are presented in section five.

2 A Grammaticalization Approach

The term *grammaticalization*, coined by Antonie Meillet (French *grammaticalisation*), is employed in linguistic literature in two distinct ways: in reference to grammaticalization phenomena and in reference to grammaticalization theory (Campbell and Janda 2001:94). *Grammaticalization phenomena* are changes that result in increased grammaticality of items – either lexical > grammatical, or grammatical > more grammatical. The "cline of grammaticality" offered by Hopper and Traugott, given in (1), shows the sorts of stages an item might go through in grammaticalization.

(1) A cline of grammaticalization (adapted from Hopper and Traugott 1993:7)
LEXICAL ITEM > GRAMMATICAL WORD > CLITIC > INFLECTIONAL AFFIX

Grammaticalization theory refers to claims made about grammaticalization phenomena, such as the principle of unidirectionality (Campbell and Janda 2001:94; see Hopper 1991 and Bybee, Perkins, and Pagliuca 1994:9-22 for other principles of grammaticalization). However, grammaticalization *theory* is problematic since it has no independent value; rather, it is "derivative," being defined by a variety of processes that may all be described independently of a grammaticalization theory (Campbell 2001:113). Nevertheless, Campbell points out that grammaticalization theory (i.e., claims about grammaticalization phenomena) has a "heuristic" value in that it informs typological studies concerning cross-linguistic phenomena and universal tendencies in language change (2001:158). The employment of the phrase *grammaticalization approach* in this study refers to the application of several key principles of grammaticalization theory about the nature of language change to resolve the dilemmas confronting a study of the Hebrew verbal system, described above.

2.1 Form-Meaning Asymmetry

Post-Saussurean grammatical description has been characterized as maintaining the tenet that each form has just one meaning or function that contrasts with that of every other form in a particular semantic domain (Heine, Claudi, and Hünnemeyer 1991:1). However, grammaticalization often creates *layers*, so that a form may have

more than one meaning and several forms may concurrently express a particular meaning. For instance, in (2a) *be going to* is the main verb expressing direction; in example (2b), *be going to* functions as an auxiliary expressing intention or future tense. The distinction between these two functions or meanings of *be going to* is manifest in the availability of the phonologically reduced form *gonna* in the case of (2b), but not (2a) (see Hopper and Traugott 1993:2-3).

(2) Meanings of *be going to* in Present Day English
   a. I'm going to/*gonna New York next week. (main verb in the progressive expressing direction)
   b. I'm going to/gonna go to New York next week. (auxiliary verb expressing intention or future tense)

While examples such as *be going to* in (2) undermine the idea of that each form has just one meaning or function, the converse of this principle is likewise contradicted by synchronic variations in Present Day English such as those illustrated in (3). While these forms are grammatically distinct (i.e., Future tense vs. Present tense; Progressive aspect vs. Non-progressive aspect), they may all be employed in the future context in (3), and a clear semantic or discourse-pragmatic distinction among these choices is not always discernable; in other words, often there is no clear reason for a speaker to use one construction in a given discourse context as opposed to another.

(3) Variations of future expression in Present Day English
   a. He will fly to Chicago tomorrow.
   b. He will be flying to Chicago tomorrow.
   c. He flies to Chicago tomorrow.
   d. He is flying to Chicago tomorrow.

Such form and meaning asymmetry can be accounted for by two principles of grammaticalization. The first is that the grammaticalization process is *cyclical* (Heine, Claudi, and Hünnemeyer 1991:246), so that "within a broad functional domain, new layers are continually emerging. As this happens, the older layers are not necessarily discarded, but may remain to coexist with and interact with newer layers" (Hopper 1991:22; Hopper and Traugott 1993:124). The cyclical nature of grammaticalization is illustrated by the development of the Latinate Futures, shown in (4): a periphrastic future may be reconstructed for pre-Latin (**kata b^humos*), which developed into an inflected form in Latin (*cantabimus*); however, another periphrastic form developed in Latin (*cantare habemus*) that eventually replaced the inflected form, and itself subsequently developed into an inflected form in the Latinate French future (*chanterons*), alongside the more recently developed periphrastic French future *allons chanter*.

(4) Grammaticalization of Latinate futures (based on Hopper and Traugott 1993:10).

Pre-Latin		Latin		French	
*?					
*kata b^{h}umos	>	*cantabimus*			
	>	*cantare habemus*	>	*chanterons*	
				allons chanter	>

A layering effect occurs at the level of individual forms on the basis of a second principle of grammaticalization, the *persistence of meaning*: "When a form undergoes grammaticalization from a lexical to a grammatical function, so long as it is grammatically viable some traces of its original lexical meanings tend to adhere to it, and details of its lexical history may be reflected in constraints on its grammatical distribution" (Hopper 1991:22). This principle is illustrated by the grammaticalization of the English verbal auxiliary *wolde/would*, shown in (5).

(5) Grammaticalization of English *wolde/would* (based on Hopper and Traugott 1993:37-38).

Early Old English		Old-Middle English		Present Day English
wolde 'wanted'	>	*wolde* 'wanted'		
	>	*wolde* auxiliary	>	*would* auxiliary

The medial stage in this development, when the lexical (inflected) meaning of *wolde* persisted alongside its auxiliary function, is illustrated in the passage in (6), dated to the ninth-century (from Hopper and Traugott 1993:37).

(6) þa Darius geseah þæt he overwunnen beon **wolde**, þa **wolde** he hiene selfne on
when Darius saw that he overcome be would, then wanted he him self in
ðæm gefeohte forspillan.
that battle kill:INF
*'When Darius saw that he **would** be overcome, he **wanted** to commit suicide in that battle.'*

Importantly, grammaticalization phenomena, though not fully predictable, are not haphazard. Studies have shown that *universal paths* exist within broad semantic domains along which relevant forms develop. For example, one of the sources of future expressions is agent-oriented modal expressions. These modal constructions develop into future expressions along the universal path shown in figure (7).

(7) Paths of development of agent-oriented modalities into futures (based on Bybee, Perkins, and Pagliuca 1994:256, 263, 266).

ABILITY → ROOT POSSIBILITY
OBLIGATION > INTENTION → FUTURE
DESIRE → WILLINGNESS

A grammaticalization approach, which examines forms in terms of their development along such universal paths, has distinct advantages over other approaches in that the diachronic perspective makes similarities among languages more transparent by allowing us to compare cross-linguistic data from genetically and temporally diverse languages in terms of these universal paths of development (Bybee, Perkins, and Pagliuca 1994:4).

The recognition of multiple meanings or functions for individual word forms and an analysis of items in terms of the degree of grammaticalization along universal paths necessitates a reassessment of what is meant by the 'basic meaning' of a form. Some meanings for a form may be explained as persistent from earlier stages in a form's development, based on the principle of persistent meaning, given above. Thus, the basic meaning of a form corresponds to the furthest point of development along the relevant grammaticalization path. Other meanings associated with a form, however, may not share any semantic parameters with the form's basic meaning, as just defined. These meanings, which are a result of context-induced reinterpretations, must be viewed as secondary foci and treated separately from the determination of a form's basic meaning.

2.2 Synchrony, Diachrony, and Panchrony

The encompassing of both synchronic variation and diachronic grammaticalization processes in a grammaticalization approach presents a challenge to the post-Saussurean primacy of synchronic analysis. The priority given to synchronic description is based on the assumption that each language-state is "essentially stable and homogeneous" (Hopper and Traugott 1993:2), an assumption that studies of grammaticalization and language variation have shown to be gratuitous (e.g., Biber 1995). Some linguists have therefore proposed a *panchronic* approach, which rejects a sharp division between synchrony and diachrony as "both unjustified and impractical"; instead, the linguist should draw "on any piece of information that might illuminate the nature of language structure" (Heine, Claudi, and Hünnemeyer 1991:258).

Saussure's own chess game analogy illustrates the relationship between synchrony, diachrony, and panchrony: the configuration of the chess men on the board at any given moment provides a synchronic view while the movement of individual pieces is the diachronic dimension. According to Saussure, "each move is absolutely distinct from the preceding and the subsequent equilibrium" (1966:89). However, if grammaticalization is understood as a matter of problem solving (so Heine, Claudi, and Hünnemeyer 1991:29), then an additional element must be added to Saussure's metaphor – that of strategy. Strategy is the element that connects the synchronic and diachronic axes in a single panchronic viewpoint, because each state is the result of a previous diachronic change and in turn determines subsequent changes, just as the configuration of the men on the chess board determines the subsequent move according to the players' strategies.

This panchronic approach to the Hebrew verb allows for both diachronic and synchronic data to be taken into account. In other words, the panchronic approach to the Hebrew verbal system taken here is interested in the inherently diachronic grammaticalization phenomena that have shaped the verbal system as well as the resultant, dynamic configuration of forms within the system.

3 Defining the Parameters

All too often semantic discussions of the Hebrew verbal system are carried out with the assumption that the concepts of tense, aspect, and modality are self-evident. Unfortunately, this is far from the case; rather, contributing to the difficulties of

constructing an adequate semantic model of the Hebrew verb is the struggle within the discipline of linguistics to arrive at fully satisfactory understandings of these universal categories. This section, therefore, introduces the universal categories of tense, aspect, and modality and also gives an orientation to the ways in which these parameters have been featured in previous models of the Hebrew verb.

3.1 Tense

Tense is a deictic device by which a situation is evaluated as before, overlapping with, or after a temporal position. Some linguists distinguish between *absolute tense*, in which the time of speaking is the position for tense evaluations, and *relative tense*, in which the tense is evaluated from some contextually determined position (e.g., Comrie 1985). Although the idea of relative tense (though in a more rudimentary form) dates back to the ancient Greek and Latin grammarians (see Binnick 1991:25), in most instances in contemporary literature the label refers to the Reichenbachian notion of relative tense (Reichenbach 1947:287-98), whereby all possible tense constructions may be analyzed in terms of precedence relationships between the point of the event (E), the point of speaking (S), and a reference point (R). Thus, according to Reichenbach's theory of tense, the English Simple Past *He walked* may be analyzed as E, R < S, in which the event (E) is simultaneous with a reference point (R) that precedes the time of speaking (S). By contrast, the English Present Perfect *He had walked* is analyzed as E < R < S, in which the event (E) is prior to a contextually determined reference point (R), which is itself located prior to the time of speaking (S).

Although some scholars still adhere to a form of the medieval absolute tense theory of Hebrew, in which *qatal* is treated as past and *yiqtol* as non-past or future (e.g., Revell 1989; Zevit 1988, 1998), other scholars have proposed a relative tense model of the Hebrew verb, in which *qatal* is always prior or anterior to a reference point and *yiqtol* is always simultaneous with a reference point (e.g., Kuryłowicz 1972, 1973; Gropp 1991); the reference point defaults for the time of speaking in absence of any other contextual indicators. Unfortunately, the application of a relative tense approach to Hebrew is problematic. For instance, although Gropp treats both *way=yiqtol* and *qatal* as relative tense, he recognizes an inconsistency in his own model in that *wayyiqtol* "almost always implies anteriority specifically to the moment of speaking – i.e., absolute tense" (1991:55). Joosten overcomes the difficulty encountered by Gropp by distinguishing *wayyiqtol* as past tense, defined as "contemporaneity with a moment in the past" (i.e., E, R < S), from *qatal* as anterior tense, defined as "anteriority to … the moment of speaking" (i.e., E < R, S) (1997:60). Unfortunately, Joosten has to admit "partial promiscuity" between the semantics of these two forms (i.e., *qatal* may express both anterior and past tense) (1997:61-62).

At another level, however, the relative tense approach is fatally flawed because it treats the perfect form as *tense* when in fact it is an aspectual form. Kuryłowicz's and Comrie's relative tense models stand out because they recognized that the perfect is aspectual (Kuryłowicz 1972:86; 1973:118; Comrie 1985:78). It is therefore unlikely, *prima facie*, that *qatal* can adequately be treated as tense – either absolute

past or relative past/anterior – because it regularly expresses perfect *aspect* (see example (11a) in section 4.1 below).

3.2 Aspect

Two types of aspect discussed by linguists are relevant to the present discussion.[3] Situation aspect, also referred to as actionality or *Aktionsart*,[4] has to do with universal distinctions amongst situation types such as Aristotle observed (*Metaphysics* 9.6.1048b.18-34). The standard list of situation types, developed independently by Vendler (1957) and Kenny (1963), includes states, activities, accomplishments, and achievements. The most basic distinction, however, is between states and the other situation types, which are dynamic. In Hebrew, and other Semitic language, where stative and dynamic verbs are regularly distinct morphologically (e.g., **kabid/*yikbad* vs. **paqad/*yapqud*), this division plays an important role in the verbal system, as discussed below (4.1).

Most of the discussion of aspect and the Hebrew (and Semitic) verbal system has involved what I am calling *viewpoint aspect*, varieties of which present different 'viewpoints' of the structure of a situation (see Comrie 1976:3). The classical Stoic-Varronian model of the Latin verbal system featured viewpoint aspect in terms of a *complete : incomplete* opposition (Robins 1997:65). Ewald followed this tradition in his nineteenth-century aspectual model, characterizing *qatal* as "vollendet" and *yiqtol* as "unvollendet" and popularizing the Latin terms *perfectum* and *impefectum* for these verb forms (1870:349-350; 1879:1-3).[5] Unfortunately, there are ontological inferences in the concepts of complete and incomplete that make it problematic for

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3 There is also a third type of aspect called *phasal*, which is derived from Slavic grammar. Phasal aspects focus on the initiation, cessation, or some alternation of a situation (e.g., *He began/finished/continued working*). In many languages phasal aspect is expressed periphrastically, as in English and Hebrew (e.g., *wayyāḥœl śᵉᶜar-rōʾšô lᵉṣammēaḥ*, 'The hair on his head began to grow,' Judg 16:22).

4 Although this is the most common application of the term *Aktionsart* ('kind of action'), note that Waltke and O'Connor employ it in a much broader way, in reference to "causation, voice, transitivity, reflexivity, repetition, and similar factors" (1990:689).

5 Ewald referred to *qatal* and *yiqtol* simply as I and II *Modi* ('mood' or 'mode') in his 1828 grammar; he first employed the Latin terms in the 1839 edition of his Arabic grammar and then subsequently in his Hebrew grammar (see Ewald 1870:350n.1; 1879:3n.1). McFall claims that Johannes Jahn was the first scholar to use the Latin terms in reference to *qatal* and *yiqtol* in his 1809 *Grammatica linguae Hebraeae* (1982:44; Waltke and O'Connor 1990:463 mistakenly attribute McFall's quote of Jahn to Ewald).

DeCaen (1996) has argued that Ewald and Driver ([1892] 1998) have been misinterpreted as presenting aspectual models and that their theories are instead to be understood as relative tense. However, DeCaen's issue is primarily with how the Stoic-Varronian model of the Latin verb has been interpreted – whether as an early aspectual model or as relative tense (see Binnick 1991:20-26). On this complex and conjectural matter, I agree with Robins (1997:65), that the Stoic-Varronian theory can be characterized as featuring two aspects (complete and incomplete) cross-cutting three temporal spheres (past, present, and future), and thus, Ewald's theory is properly understood as a development of this early aspectual model. Driver's theory is also aspectual; however, his model differs from Ewald's due to the influence of Georg Curtis' distinctive aspectual treatment of the Greek Aorist (1870), as DeCaen recognizes (1996:144).

defining viewpoints of a situation (i.e., past events are complete while non-past events are incomplete).[6] As a result, Brockelmann replaced these potentially misleading terms with the Latinate labels "konstatieren" (from *constare* 'to stand still,' 'to exist') and "kursiv" (from *cursus* 'running,' 'coursing'); these terms have subsequently been widely employed in German scholarship (Rundgren 1961; Meyer 1992; Johnson 1979) and the concept also appears to lie behind Gibson's comments that *qatal* "identifies a situation or event as static or at rest," and *yiqtol* identifies a situation "as fluid or in motion" (1994:60).

Nevertheless, Ewald's terms perfect and imperfect remain fairly well established in Hebrew (and Semitic) studies, while in linguistics the terms *perfective* and *imperfective*, derived from Slavic grammar, have come to dominate the discussion of viewpoint aspect. The metaphor of camera lenses illustrates well the two defining characteristics of the opposition between perfective and imperfective – namely, scope and distance. Perfective aspect, like a wide-angle lense, captures an entire interval of the situation within its scope, but presents the situation as distant. By contrast, imperfective aspect, like a telephoto lense, presents a close-up view of a situation, but excludes the endpoints of the interval from its narrow scope. The implication of the imperfective's close-up view is that it discerns the internal structure of the situation interval. The practical result is illustrated by example (8): situations presented with an imperfective aspect may include other events within their frame. Thus, the perfective event of Evan walking into the room is presented as happening during the interval of time that Colin is reading, presented in the imperfective.

(8) Perfective event contained within the reference frame of an imperfective event
Colin **was reading** (imperfective) and Evan **walked** (perfective) into the room.

Although the perfective : imperfective opposition dominates linguistic discussions of viewpoint aspect, the *perfect* and *progressive* are also varieties of viewpoint aspect. In contrast to the perfective and imperfective, which focus on the nucleus of a situation, the perfect aspect focuses on the resultant phase of a situation. In other words, a perfect verb *presumes* a prior event nucleus, but its focal point is the result of that situation. The perfect is illustrated by the English example in (9), in which the event of *reading ten books* is presupposed but not included in the scope of the perfect expression *has read*.

(9) Perfect aspect
Jared **has read** (perfect) ten books this year.

Progressive aspect presents an agent in the midst of an activity at the reference time (Bybee, Perkins, and Pagliuca 1994:136). Although semantically the progressive viewpoint is virtually indistinguishable from the imperfective, there are some universal characteristics that differentiate progressive and imperfective verbs. For instance, progressives are often expressed periphrastically and/or based on nominal

6 These ontological inferences of complete and incomplete accord with the relative tense interpretation of the Stoic-Varronian model: the action in compete events lies mostly in the past, while the action of incomplete events lies mostly in the future (see Binnick 1991:24).

forms, as in English (Bybee, Perkins, and Pagliuca 1994:130; Dahl 1985:91). Also, as illustrated by example (10), progressive aspect is often incompatible with stative predicates.

(10) Progressive aspect's incompatibility with statives
*Tage **is knowing** (progressive) how to read.

3.3 Modality

The limits of the category of modality[7] are nebulous. As such, modality can only be broadly defined as characterizing the speaker's view of the actuality of an event (Palmer 1986:2).[8] Epistemic and deontic modality dominate linguistic discussion. The former, well known in modal logic, consists of the two modal operators *necessity* and *possibility*; deontic modality is characterized primarily by two operators corresponding to the epistemic operators, but in the moral realm – *obligation* and *permission*. In addition to obligation and permission, deontic modality encompasses performatives (i.e., statements through which we bring about changes in our world) commissives (i.e., promises), and volitives (i.e., wishes, expressions of hope and fear) (see Palmer 1986:chap. 3).[9]

Scholars have only recently begun to take more than passing account of modality in their models of the Hebrew verbal system. Some simply feature modality as a parameter of the traditional deontic forms (i.e., Imperative, Jussive, and Cohortative) (e.g., Loprieno 1986; Gropp 1991). However, others have given modality a more central role by characterizing forms as modal that have traditionally been identified as non-modal. For example, Joosten describes *yiqtol* and *weqatal* as "non-volitive modality," in contrast to the "volitive" Imperative, Jussive, and Cohortative forms (1999:16). Unfortunately, Joosten's characterization of "non-volitive modality" is rather vague (he includes in this category prediction, potentiality, conditionality, obligation, and habituality) (1992:7-8; 1999:25). Although Joosten is able to account for the past habitual use of *yiqtol* by redefining the form as modal, the employment of the form in indicative past and present progressive expressions is still problematic for such an identification, as evidenced by his desire to reanalyze such examples (1999).

A few scholars have redefined *qatal* and *yiqtol* in terms of *real(is)* and *irreal(is)* (e.g., Rattray 1992; Loprieno 1986) – concepts that are not properly modal as generally understood. These scholars, and some linguists (e.g., Bhat 1999:65) treat the real : irreal opposition as an ontological category (i.e., whether an event is realized or

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7 The choice of the term *modality* instead of *mood* is intentional. The term mood properly refers to morphological categories, such as the subjunctive and optative. All languages, however, have means of expressing modality even though they may lack morphological mood categories.

8 In particular, defining modality is made difficult by the vast variety of evidentiary systems in languages (e.g., visual, non-visual, apparent, secondhand, assumed) (see Palmer 1986:66-76).

9 Hebraists have often applied the label volitive to the primary modal forms (i.e., Imperative, Jussive, and Cohortative) (e.g., Joüon 1993); however, the semantics of these forms are broader than volitive, and they predominantly express directive modality (i.e., commands or instructions).

unrealized), whereas modality has to do with the speaker's subjective estimation of the reality of a situation (see Bybee, Perkins, and Pagliuca 1994:236-40).
Finally, a third type of modality, much less studied by linguists and Hebraists, is contingent modality.[10] This category derives from the distribution of the subjunctive mood in classical languages, and is based on the recognition of a modal value in many subordinated clauses such as conditional. The modality (i.e., the speaker's view of the situation) of these subordinate clauses is contingent; in other words, the actuality of the subordinated statement is dependent on the actuality of the statement to which it is subordinated. Constructions typically analyzed in terms of protasis-apodosis, such as conditional, temporal, causal, purpose, and result clauses, are examples of *contingent* modality. This type of modality, which is not featured in any models of the Hebrew verb that I am aware of, plays a role in the model presented here.

4 Grammaticalization of the Hebrew Verb

4.1 *Qatal*

The most convenient approach to the interrelationships among the Hebrew verbal forms is through an examination of the *qatal* form, which overlaps or contrasts with every other verb form in one or another broad semantic domain. *Qatal* also provides a ready entrance point into the grammaticalization of the Hebrew verbal forms because its development is the most well established.
The prototypical meanings for *qatal* are perfect and perfective or simple past, illustrated in (11).[11]

(11) a. Qatal with perfect meaning
yhwh ʾᵉlōhêkæm ***hirbāh*** *ʾætkæm wᵉhinnᵉkæm hayyôm kᵉkôkᵉbê haššāmayim lārōb*
'Yhwh your God **has multiplied you**, and behold, today you are like the stars of heaven with respect to (your) numerousness.' (Deut 1:10)

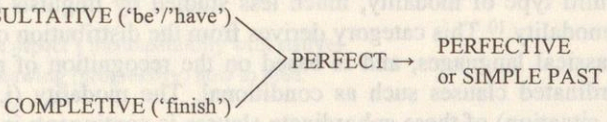
b. Qatal with perfective/simple past meaning
yhwh ʾᵉlōhênû ***dibbær*** *ʾēlênû bᵉḥōrēb*
'Yhwh our God spoke to us at Horeb.' (Deut 1:6)

These prototypical meanings place *qatal*'s development between the perfect stage and the perfective or simple past stage on the grammaticalization path in (12).

10 Palmer (1986:chap. 5) labels this type of modality "oblique."

11 Perfective and simple past are two closely related senses (Dahl 1985:79); therefore, it is not possible to determine whether *qatal* expresses perfective aspect or simple past tense based on the translational equivalent of the English Simple Past. The tense-based metalanguages (e.g., English and German) employed in studies of the Hebrew verb have contributed to confusion over whether Hebrew is an aspectual or tensed language.

(12) Grammaticalization paths for perfective/simple past (adapted from Bybee, Perkins, and Pagliuca 1994:105).



According to this path of development, verbs originating as either resultative or completive constructions develop via a perfect meaning into either perfective or simple past. The development from resultative to perfect is illustrated by a comparison of King James English with Present Day English: *He **is gone** down* (KJV, 1611) versus *He **has gone** down* (NRSV, 1989) (1 Kgs 1:25). Similarly, the alternation between the German Perfekt and Preterite (*Ich habe geschrieben ~ Ich schrieb*) illustrates the development of a perfect verb into perfective or simple past.

An analysis of the grammaticalization of *qatal* leads to the conclusion that in Biblical Hebrew the form expresses *perfective aspect*. Most scholars have adopted the hypothesis that *qatal* (<**qatala*) is a West Semitic innovation, developed from the Common Semitic verbal adjective **qatil* (Huehnergard 1992:156). As illustrated by the Akkadian Verbal Adjective, this form could express verbless predications through the suffixing of subject pronouns (e.g., **qarib ʾanta* > **qarib-ta* 'you are drawn near' (see von Soden 1952:100-2; Huehnergard 1997:219-23). However, in West Semitic the theme vowel was altered and the form developed from a stative (resultative) verb into a dynamic (perfect) form: **qarib-ta* 'you **are** drawn near > **qarabta* 'you **have** drawn near') (Bergsträsser 1983:11n.s, 21n.ac; Lipiński 1997:341; Tropper 1998:182).[12]

This earlier perfect meaning is dominant in the Canaanite of Amarna (see Moran 1950:27; Rainey 1996:281-366) but by the period of Biblical Hebrew the form had developed into a perfective verb. The frequency with which *qatal* expresses perfect is explained as a persistence of this earlier meaning (on the persistence of meaning see 2.1 above). Although perfective and simple past verbs are semantically related (Dahl 1985:79), there are several factors that distinguish perfective and simple past verb forms cross-linguistically. One of these is that perfective verbs with stative predicates, if the combination is allowed at all, often express by default a *present* state; by contrast, simple past verbs are limited to expressing *past* states with stative

[12] Andersen takes issue with this analysis of *qatal* as originating in a resultative construction: "in Proto-Semitic … **qatala ʾanta* would have meant 'you (are) killed', with the subject as patient, not agent. It is unclear how this could have evolved into **qatalta* meaning 'you have killed'" (2000:34). However, one must carefully distinguish between passives like 'you are killed' and resultative constructions involving intransitive verbs, in which the shift to perfect does not affect the verb's arguments (e.g., *He is gone* > *He has gone*) (Bybee, Perkins, and Pagliuca 1994:54). Thus, in Semitic, the shift from resultative to perfect can only be illustrated with intransitive verbs, such as **qariba* ('he is drawn near' > 'he has drawn near'). Presumably, the development of the dynamic **qatala* conjugation in Semitic originally occurred with intransitive verbs and subsequently spread to transitives. This explanation accords with Huehnergard's discussion of the predicative use of the Verbal Adjective in Akkadian, which has a *passive* sense with transitive verbs, and a *resultative* meaning with intransitive verbs (1997:27).

predicates (Bybee, Perkins, and Pagliuca 1994:92). Since within a past context perfective verbs *may* express a past state, in order to determine the default meaning of *qatal* with stative predicates,[13] it is helpful to limit the analysis to direct speech examples, where the narrative context does not effect the interpretation of the form (Miller 1996:131). A statistic sampling of thirty-five stative roots in *qatal* in direct speech shows that they express a present state about eighty percent of time,[14] demonstrating that the default interpretation of *qatal* with stative predicates in Biblical Hebrew is a *present state*, and thus that *qatal* in Biblical Hebrew is a perfective verb rather than a simple past form. In addition, *qatal*, like some other perfective verbs cross-linguistically, has a future meaning (see 4.4 below), which past verbs cannot express (Bybee, Perkins, and Pagliuca 1994:95).[15]

Perfective, however, is not the end of *qatal*'s development. Bybee, Perkins, and Pagliuca hypothesize that perfectives may develop further into simple pasts (1994:92).[16] Stative verbs in *qatal* in Rabbinic Hebrew no longer express present states, only past (Segal 1927:150),[17] demonstrating that *qatal* in Rabbinic Hebrew has undergone a further shift from perfective to simple past.

In summary, the development of *qatal* I am proposing is presented in (13): originating in a resultative construction, *qatal* developed into a perfect, evidenced in Amarna Canaanite; it has developed into a perfective by the biblical period, although

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13 The semantic distinction between the **qati/ula* and **qatala* patterns varies throughout West Semitic. Müller states that originally the stative **qatila* pattern was not limited to present time reference, nor to an active or passive sense (1983:38); both patterns occur with a dynamic perfect meaning in Eblaite (Müller 1984:157-58), and some roots in El-Amarna Canaanite occur in both patterns (Rainey 1996:303). Analyzing the opposition between the two patterns is further complicated by confusion and/or disagreements concerning the semantic analysis, as evidenced in the different labels given to the opposition: stative/passive : transitive/motion (Rainey 1996:296); passive : active (Tropper 1998:182); middle voice : active voice (Joosten 1998:207).

14 The data consisted of thirty-five common stative roots that are attested in both *qatal* and *wayyiqtol*. The actual numbers are: 63 out of 290 (22 percent) express a past state and 227 out of 290 (78 percent) express a present state in *qatal*. The percentage is much higher if the stative roots are included that are attested in *qatal* but not *wayyiqtol*. The other twenty percent of *qatal* examples in direct speech express past states within the past context of narrative embedded in discourse.

15 The so-called prophetic perfect, explained below (4.4) as an immediate future use of *qatal*, is especially problematic for tense theories since it cannot be explained by either an absolute or relative past meaning for the form.

16 Importantly, Bybee, Perkins, and Pagliuca claim the reverse development, simple past > perfective, will not occur (1994:92). Although this is only a hypothesis, it goes against DeCaen's claim that there is no path of development between perfective and simple past (1995:182).

17 Segal's assessment appears to be correct and agrees with Kutscher's statement that "the perfect now [i.e., in Rabbinic Hebrew] denotes only past action" (1982:131). Nevertheless, Pérez Fernández objects that "M. H. Segal overstates his claim that forms like יָדַעְתִּי can never have a present significance in RH, for in fact, we find in rabbinic literature certain idiomatic turns of phrase, such as אַתָּה אָמַרְתָּ, in which the present is clearly signfied" (1997:108). However, none of Pérez Fernández's examples (see 1997:116-17) involve stative roots. Ridzewski does offer one example of a stative root in *qatal*, which he categorizes as "Präsens": נחנו {א}אשמנו. However, he translates it with a past inchoative sense, consistent with a simple past identification of *qatal*: "wir luden Schuld auf uns" (1992:160).

it retains its older perfect meaning; finally, in the post-biblical period *qatal* develops into a simple past.

(13) Development of *qatal* in Hebrew

Proto-Semitic	>	Amarna Canaanite	>	Biblical Hebrew	>	Rabbinic Hebrew
RESULTATIVE (**qariba* 'he is drawn near')		PERFECT (**qaraba* 'he has drawn near')		PERFECTIVE (*qārab* 'he has drawn / drew near')		SIMPLE PAST (*qārab* 'he drew near')

4.2 *Wayyiqtol*

Many models of the Biblical Hebrew verb distinguish *wayyiqtol* from *qatal* based on the parameter "sequentiality" (e.g., Gropp 1991; Endo 1996; Hatav 1997; Gentry 1998);[18] however, a grammaticalization approach enables us to semantically distinguish these two forms based on their stage of development along the universal path in (12). Following Bauer's suggestion (1910), and on analogy with the proposed development of *qatal* (see 4.1 above), we may hypothesize that *wayyiqtol* originated as a resultative form, constructed of subject pronouns prefixed (with some suffixing) to the Common Semitic **q(u)tul* infinitive form: **ya-qrub* 'he is drawn near.'[19] This hypothesis is tenable on the basis of cross-linguistic data that show other resultatives constructed of infinitives plus a copulative verb (see Bybee, Perkins, and Pagliuca 1994:80).

This form developed at an earlier stage than West Semitic **qatala* and, consequently, by the stage of Biblical Hebrew had become a simple past verb, demonstrated by the fact that it always expresses past states with stative predicates, never present states.[20] The earlier stage of *wayyiqtol* (<**yaqtul*) may be evidenced in Ugaritic poetry, where the form freely expresses perfective as well as perfect meanings (i.e., past perfect, present perfect, and future perfect), similar to *qatal*'s semantic range in Biblical Hebrew (see Tropper 2000:695-701). However, Kienast notes that even in Ugaritic *qatala* is encroaching on the functions of *yaqtul* (2001:315, 317), just as in Biblical Hebrew, where the perfective *qatal* is semanti-

18 The use of a parameter *sequentiality* in models of the Hebrew verb is especially problematic. First, the term is reserved by linguists for under-marked chained verb forms (see Longacre 1990; Marchese 1988), whereas most Hebraists intend by the term the concept of temporal succession. Second, there is no evidence that any other languages mark temporal succession with bound verbal morphology, as scholars commonly propose for *wayyiqtol* and *weqatal* (see Comrie 1985:61-62); rather, temporal succession is the default interpretation of texts, and can be semantically explained as affected by a gestalt of features including situation aspect, viewpoint aspect, and temporal adverbs (see Brown and Yule 1983:125, 144; Cook 2002:chap. 4).

19 It is reasonable to suppose that the Jussive originated in the same construction, but the prefixed pronouns were added to the imperative **q(u)tul*. However, it is an open question whether indicative and modal **yaqtul* should be treated as two forms, built from homonymous infinitive and imperative **q(u)tul* forms or as a single polysemous form (so Huehnergard 1988:20; see also Meyer 1992:3.39-41).

20 Based on the same thirty-five roots mentioned above (note 14), 96 percent (243 out of 252) of the time the stative roots in *wayyiqtol* express a past state; the other 4 percent (9 out of 252) have a present gnomic meaning (on which see Gross 1976).

cally very similar to *wayyiqtol*. The latter differs primarily in its discourse-pragmatic specialization as a narrative verb; thus the forms relate to each other in a similar fashion as the French *Passé Simple* narrative verb and *Passé Compose* (e.g., *j'écrivis* vs. *j'ai écrit*).[21] As *qatal* developed from a perfective into a simple past verb in the post-biblical period, it completely eclipsed the semantics of *wayyiqtol*, thus pushing the latter form into obsolescence, as shown by the Rabbinic Hebrew data.

4.3 *Yiqtol* and Participle

Since grammaticalization data show that perfective verbs only develop in opposition to an imperfective verb (Bybee, Perkins, and Pagliuca 1994:91-92), an identification of *yiqtol* as imperfective is inevitable based on the identification of Biblical Hebrew *qatal* as perfective. Furthermore, cross-linguistic data show that progressives are the main source for imperfective verb forms (Dahl 1985:93; Bybee, Perkins, and Pagliuca 1994:141); thus, it is logical to posit a progressive form as the origin for *yiqtol* (<**yaqtulu*). The most likely hypothesis is that **yaqtulu* was originally constructed of the **q(u)tul* infinitive prefixed with pronouns (as *wayyiqtol*) plus a locative *-u* ending (see Diakonoff 1988:103; on locative *-u(m)* in Akkadian suffixed to infinitives see Huehnergard 1997:131).[22] This hypothesis accords with cross-linguistic data showing that progressives often originate in locative constructions with infinitives (Bybee, Perkins, and Pagliuca 1994:128).[23]

By the biblical period, *yiqtol* (<**yaqtulu*) had developed from a progressive into an imperfective, the latter being distinguished from the former by its more general meaning, encompassing progressive as well as other meanings such as habitual and gnomic (Comrie 1976:25; Bybee, Perkins, and Pagliuca 1994:141). The examples in (14) illustrate these prototypical meanings for imperfective *yiqtol* in Biblical Hebrew.

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21 Although it is tempting to connect the fossilizing of the *wa*C- prefix to the past **yaqtul* form in Hebrew with its specialization as a narrative verb, the semantic or discourse-pragmatic contribution of *wa*C- is as yet uncertain; the prefix cannot be identified as either the sufficient or necessary cause of *wayyiqtol*'s specialization as a narrative verb (for a discussion of analyses of the *wa*C- prefix see Testen 1998:193-94).

22 Diakonoff's complete hypothesis is that **yaqtulu*, created by adding a nominative or locative *-u* to the jussive/preterite **yaqtul*, originated as a subordinate form and then spread in West Semitic to independent clauses (1988:103). By contrast, Kuryłowicz argued that **yaqtulu* originated as a present verb form, which was subsequently syntactically restricted to subordinate clauses in East Semitic by the rise of the new present **yaqattal* conjugation (1972:60). Although Andersen combines elements of both these approaches (2000:24), Diakonoff's and Kuryłowicz's theories are both flawed because they propose an unlike path of development from jussive or preterite to progressive and because they treat Akkadian *iqtulu* as a discrete conjugation. Huehnergard explains that the Akkadian Subjunctive *-u* is a modal marker, independent of any one conjugation nor forming an independent conjugation itself (1997:183-84).

23 The locative construction is a logical source for progressives judging from Bybee, Perkins, and Pagliuca's definition of progressive as presenting an agent spatially located in the midst of an activity at the reference time (1994:136). The other major source of progressives is demonstrated by English: copula verb plus a gerund form as in ***He was singing*** (see Bybee, Perkins, and Pagliuca 1994:128).

(14) a. *Yiqtol* with a past progressive meaning
way^{e}hî qôl haššôpār hôlēk w^{e}ḥāzēq m^{e}ʾōd mōšæh y^{e}dabbēr w^{e}hāʾ^{æ}lōhîm ya^{ca}nænnû b^{e}qôl
'And as the sound of the trumpet was growing louder and louder, Moses **was speaking** and God **was answering** him in a voice.' (Exod 19:19)

b. *Yiqtol* with a present progressive meaning
*wayyōʾmær bôʾ b^{e}rûk yhwh lāmmāh **ta^{ca}mōd** baḥûṣ*
'And he said, "Come in, blessed of the Lord. Why are you standing outside?"' (Gen 24:31)

c. *Yiqtol* with a past habitual meaning
*w^{e}kēn **ya^{ca}śæh**[24] šānāh b^{e}šnāh middê ^{ca}lōtāh b^{e}bêt yhwh*
'And thus **he would do** year by year as often as she went up into the house of the Lord.' (1 Sam 1:7)

d. *Yiqtol* with a gnomic meaning
*bēn ḥākām **y^{e}śâmmaḥ**-ʾāb ûbēn k^{e}sîl tūgat ʾimmô*
'A wise son **gladdens** a father, but a foolish son (is) his mother's grief.' (Prov 10:1)

The general future meaning of *yiqtol* is contextually derived, as is the case with imperfectives in other languages (see Bybee, Perkins, and Pagliuca 1994:275-76). This is similar to the case of the English Present, which may express future tense in a future context: *He **will travel** to New York next week~He **travels** to New York next week.*

Past progressive examples of *yiqtol*, such as (14a) above, have generally been ignored or explained away by theories claiming *yiqtol* is a non-past *tense* form (e.g., Zevit 1988; Joosten 1999). While such examples are admittedly infrequent, they gainsay a non-past tense identification of *yiqtol*. In addition, a grammaticalization approach can explain the relative infrequency of *yiqtol* in past progressive expressions by its relationship to the participle: the participle, which is marked for progressive aspect in Biblical Hebrew, had begun to encroach upon *yiqtol*'s prototypical progressive meanings, thus appearing often in past progressive expressions, as in the example in (15).[25]

(15) Participle with a past progressive meaning
wayyābōʾ ʾæl-hāʾîš w^{e}hinnēh ^{c}ōmēd ^{c}al-hagg^{e}mallîm ^{c}al-hā^{c}āyin
'And he came to the man, and behold, (he) **was standing** by the camels and the spring.' (Gen 24:30)

Thus, the relationship between *yiqtol* and the participle is analogous to the relationship between *wayyiqtol* and *qatal*: the participle is a younger form developing along the same universal path of progressive > imperfective as *yiqtol*. As in the case of *qatal*, the participle eventually displaced *yiqtol*, but within the newly developed

24 Reading ***ta^{ca}śæh*** (YQTL:3FS) alleviates some of the logical problems in this passage: *'thus she would do ... as often as she would go up.'*

25 No pre-Biblical Hebrew development can be discerned for the progressive participle; the form originated as a **qātil* verbal adjective expressing progressive aspect.

tense system of Rabbinic Hebrew *yiqtol* expresses future tense and deontic modality while the participle is employed in progressive and habitual expressions (e.g., *hāyāh ômēr* 'he was saying/would say') as well as for present tense.[26]

4.4 *Qatal* and Participle

Among the forms discussed here, *qatal* exhibits the least amount of overlap with the participle; however, both the participle and *qatal* have specialized future meanings. The participle has an *expected future* meaning, as illustrated in (16a), which parallels the future use of the English Present Progressive, illustrated in (16b).

(16) a. Participle with an expected future meaning
kî lᵉyāmîm ᶜôd šibᶜāh ʾānōkî ***mamṭîr*** *ᶜal-hāʾārcṣ*
'For in seven days I **am going to cause it to rain** upon the earth.' (Gen 7:4)

b. Expected Present Progressive with a future meaning
I **am mailing** the manuscript next week.

The future meaning of *qatal* is commonly referred to as the 'prophetic perfect.' This peculiar use of the perfective *qatal* has been explained in psycholinguistic terms (e.g., Kautzsch 1910:312) and as a rhetorical device (e.g., Joüon 1993:363). It is not unusual cross-linguistically, however, for a perfective verb to have a future meaning and, in fact, a future meaning for *qatal* confirms a perfective identification for the form, since simple past verbs do not express future meanings (Bybee, Perkins, and Pagliuca 1994:95). In Bybee, Perkins, and Pagliuca's data there are two languages with perfective verbs that express *immediate future* (1994:278). One of these is the Caucasian language of Abkhaz, in which the perfective Aorist has an immediate future meaning, illustrated in (17).

(17) Immediate future Aorist
b- ab də- cé-yt'
your father he-go:FINITE
'Your father ***is (on the point of) going.****'* (Hewitt 1979:173)

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26 Although the transition of the Hebrew verbal system from the biblical period to Rabbinic Hebrew is complex, certain developments are clear. First, *qatal* developed into a past tense form, displacing the Biblical Hebrew past *wayyiqtol* form (see note 17). Second, the participle remained an intermediate form (i.e., both nominal/adjectival and verb), in contrast to Modern Hebrew, where its adjectival and verbal roles are strictly separated (see Gordon 1982:33, 43); nevertheless, this intermediate progressive form came to serve as the present tense construction, much as the progressive is preferred in English for present expressions (e.g., *I am walking* in contrast to *I walk*, which is normally interpreted gnomically). Third, the semantics of *yiqtol* are complicated by the falling together of *yiqtol* with the deontic modals, the development of a periphrastic future (i.e., *ᶜātîd l*-INF), and the more frequent use of the participle in future expressions (Pérez Fernández 1997:109; 137-38). Hence, the future meaning of *yiqtol* in Rabbinic Hebrew is restricted to subordinate structures (like some colloquial Arabic dialects; see Bybee, Perkins, and Pagliuca 1994:233-34); in independent clauses *yiqtol*'s deontic modal sense predominates (Kutscher 1982:131).

Just as the participle's expected future function is comparable to the future auxiliary use of *be going to* in English, *qatal*'s immediate future expression is analogous to the English construction of *about to*, as in *He is about to fly to London*. Hence, the prophets were not writing down visions that portrayed these events as already passed, nor were they trying to express certainty of the events through the rhetorical use of a past time expression. Rather, the prophets were convinced that these acts of God thus portrayed by *qatal* were imminent. So in the example in (18), the prophet is convinced that the people's disregard for God makes their exile imminent.

(18) *Qatal* with an immediate future meaning
lākēn ***gālāh*** *ʿammî mibbᵉlî-dāʿat*
'Therefore, my people **are about to go into exile** because of lack of knowledge.' (Isa 5:13)

4.5 Modal *Qatal* (*Weqatal*)

The last form to examine is *weqatal*. Analysis of the semantics of *weqatal* has been hampered by its analogical association with *wayyiqtol*; however, neither the grammaticalization nor the semantics of *weqatal* is analogous to those of *wayyiqtol*. In terms of grammaticalization, there is no evidence for a *weqatal* conjugation that is distinct from *qatal* in Semitic.[27] However, it has been observed that throughout Semitic the perfective *qatal* (and its cognates) may have a future time reference when used modally in conditional sentences.[28] In such cases, the future sense of the perfective verb is derived from the modal context (Peled 1992:12). Thus, *weqatal* should be analyzed as the perfective *qatal* functioning modally. The common label *weqatal* refers to *qatal*'s distinctive shape with the *waw* conjunction when used modally, and indicates that verb-subject word order restriction observed for the deontic modals (i.e., Imperative, Jussive, and *yiqtol* when used deontically) by Hebraists (Rosén 1969; Revell 1989; DeCaen 1995; Shulman 1996) applies to modal *qatal* as well (see Holmstedt 2001).
In contrast to the strictly conditional modal use of *qatal* in the other Semitic languages, in Biblical Hebrew modal *qatal* is very productive: as illustrated in (19), modal *qatal* may express contingent as well as directive deontic modality.

(19) a. Modal *qatal* expressing purpose or result
ʾānōkî mamṭîr ʿal-hāʾāreṣ ʾarbāʿîm yôm wᵉʾarbāʿîm lāylāh ***ûmāḥîtî*** *ʾæt-kol-hayᵉqûm*
'I am going to cause it to rain upon the earth for forty days and forty nights **so that I wipe out** every existing thing.' (Gen 7:4)

b. Modal *qatal* expressing directive deontic meaning
wᵉlāqaḥtā *ʾæt-šæmæn hammišḥāh* ***ûmāšaḥtā*** *ʾæt-hammiškān*
'**And you are to take** the anointing oil **and anoint** the tabernacle.' (Exod 40:9)

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27 This lack of evidence contradicts the claim by Zuber and Joosten that *weqatal* is an independent modal conjugation (Zuber 1986; Joosten 1992).

28 E.g., in Arabic, Ethiopic, Aramaic and Syriac, Ugaritic, Phoenician, and the Canaanite of El-Amarna (see Wright 1962:2.14-17; Dillman [1899] 1974:548; Folmer 1991; Nöldeke 1904:203-5, 265; Tropper 2000:715; Krahmalkov 1986; Moran 1950:73; Rainey 1996:355-65).

This wide range of meanings for Biblical Hebrew *qatal* may be explained as "context-induced reinterpretations" (Heine, Claudi, and Hünnemeyer 1991:71-72). In other words, a new modal sense developed for *qatal* in the specific context of conditional clauses. As this meaning became more established, the form could be used in other contexts that were compatible only with the modal meaning – such as other contingent modal constructions. Eventually, this new meaning became conventionalized. As a further or perhaps separate development, a deontic modal sense developed for *weqatal* in the context of case-law apodoses. Examples from legal literature, such as (20), in which the form expresses both conditional and deontic modality illustrate the pathway between the two types of modal expressions.

(20) Modal (conditional and deontic) *qatal*
*ʾim hakkōhēn hammāšîaḥ yæḥ^{æ}ṭāʾ . . . **wᵉhiqrîb** . . . par bæn-bāqār . . .*
'If the anointed priest sins . . . **then he must bring near** . . . a young bull . . .' (Lev 4:3)

5 Summary and Conclusions

This study has sought to understand the semantics of the Hebrew verb by tracing the grammaticalization of the various forms. A summary of the grammaticalization of the Hebrew verbal system is given in the table in (21) (the deontic forms are included for the sake of completeness, but have not been discussed in this study).

(21) Summary of the grammaticalization of the Hebrew verb.

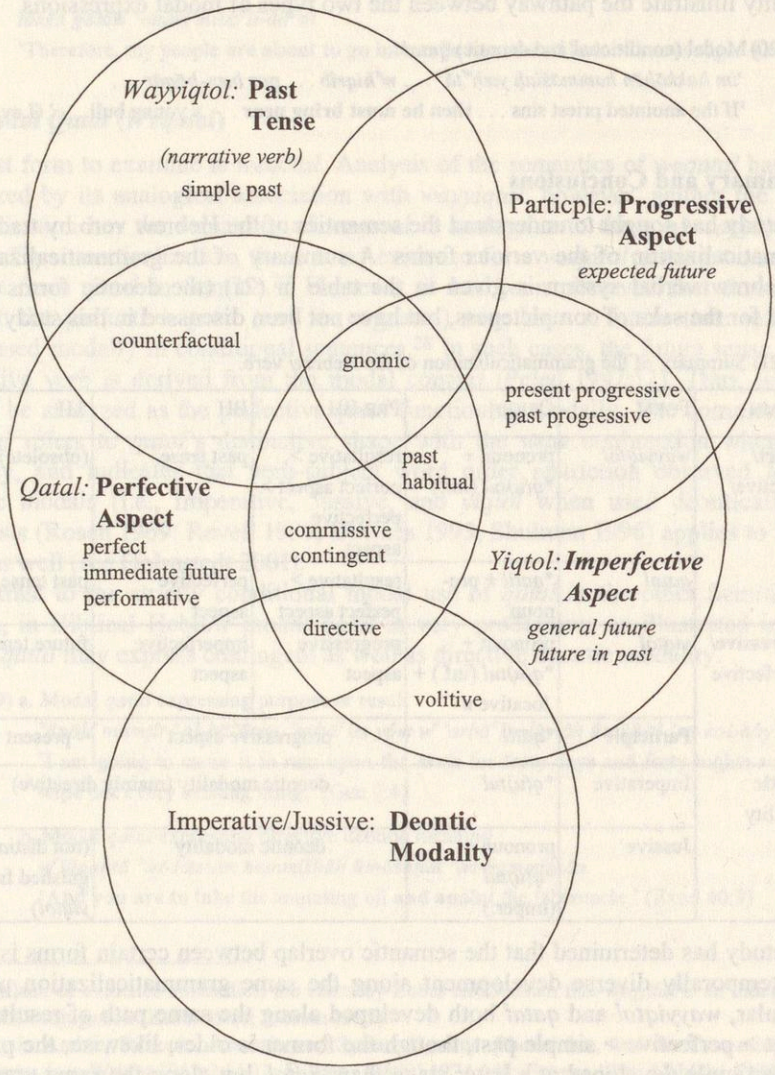
DOMAIN	FORM	ORIGIN	PRE-BH	BH	RH
Perfect/ Perfective/ Past	*wayyiqtol*	pronoun + **q(u)tul* (inf.)	resultative > perfect aspect > perfective aspect	past tense	(obsolete)
	qatal	**qatil* + pronoun	resultative > perfect aspect	perfective aspect	past tense
Progressive/ Imperfective	*yiqtol*	pronoun + **q(u)tul* (inf.) + locative *u*	progressive aspect	imperfective aspect	future tense
	Participle	**qātil*	progressive aspect		≈ present tense
Deontic Modality	Imperative	**q(u)tul*	deontic modality (mainly directive)		
	Jussive	pronoun + **q(u)tul* (imper.)	deontic modality		(not distinguished from *yiqtol*)

This study has determined that the semantic overlap between certain forms is due to their temporally diverse development along the same grammaticalization path. In particular, *wayyiqtol* and *qatal* both developed along the same path of resultative > perfect > perfective > simple past, though the former is older; likewise, the progressive participle developed at a latter stage than *yiqtol*, but along the same grammati-

calization path, thus creating semantic overlap with the latter. Other overlap between forms (not all discussed here), such as between Jussive, *yiqtol*, and *weqatal* can be generally accounted for the by layering effect of a cyclical grammaticalization process.

The full extent of semantic overlap between the verbal forms in Biblical Hebrew is illustrated in the vendiagram in (22) below.

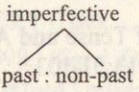
(22) A semantic model of the Biblical Hebrew verbal system based on a grammaticalization approach.



A basic meaning is discernable for each form, given in bold, but overlap between forms is recognized and tolerated within the system. In some instances there is a discourse-pragmatic distinction that is fairly obvious (e.g., between *qatal* and narrative *wayyiqtol*, the latter of which expresses foregrounded narrative events; see Cook 2002:chap. 4); in other instances no such distinction may exist. However, in still other cases of overlap there may be a discourse-pragmatic distinction that has yet to be discerned. This semantic model provides a basis for doing the necessary inductive, textual analysis in order to discover some of these distinctions.

Most importantly, this study has drawn on cross-linguistic data concerning the development and configuration of verbal forms in grammar in order to demonstrate that the ancient Hebrew verbal system is aspect-prominent, having a central perfective : imperfective opposition in *qatal* and *yiqtol*, and that this system shifted to a tense-prominent one in Rabbinic Hebrew. As an aspect-*prominent* language, the central opposition in Biblical Hebrew is aspectual; however, the system features a variety of verb forms, including tensed, aspectual, and modal forms (e.g., *wayyiqtol* is past tense, the participle is progressive aspect, and imperative/jussive are modal). At the Biblical Hebrew stage, the verbal system is a rather typical tripartite aspectual system, as illustrated by the figure in (23). Bybee and Dahl have concluded from their combined typological studies that this type of system occurs in about every second language in the world (1989:89).

(23) Dahl's model of perfective : imperfective opposition and tense (adapted from Bybee and Dahl 1989:83).



In contrast to other Semitic languages, which developed periphrastic constructions with their imperfective forms to distinguish past : non-past (e.g., Arabic *kāna yaktubu*, Syriac *nektob hwā'* 'he was writing'), tense distinctions in Biblical Hebrew are purely contextual.

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Abstract:

Several difficulties in the study of the Hebrew verb have contributed to the present impasse in the field: the failure of past theories to adequately deal with form-meaning asymmetries in the verbal system; the unresolved debate over synchronic versus diachronic approach; and the neglect of typological data as a means of external validation for models of the Hebrew verb. This study outlines a grammaticalization approach that remedies each of these problems and then presents a semantic model of the Hebrew verb in terms of the parameters of tense, aspect, and modality. The important conclusions reached in this study include: (1) that Biblical Hebrew has a typical aspect-prominent verbal system, but (2) that the system is drifting towards becoming tense-prominent, as it appears in Rabbinic Hebrew; (3) the semantic relationships between certain verb forms (e.g., *qatal* and *wayyiqtol*, *yiqtol* and participle) is clarified in terms of their relative stage of grammaticalization; and (4) a model is constructed that sufficiently distinguishes the Hebrew verbal forms in terms of their 'basic meanings,' but nevertheless tolerates semantic overlap between the forms.

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