Artikel

The Evolution of the Hebrew Verbal System

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1. Introduction

This paper[1] focuses on problems relating to the diachronic* development of the Hebrew verbal system from the Proto-Semitic* verbal system.[2] That is, it addresses the question of how the verbs of the ancient Proto-Semitic language developed through time, evolving into the verbs found in Biblical Hebrew. For nine hundred years scholars have been trying to come up with a theoretically sound description of the Hebrew verbal system. As yet, no consensus has emerged. A linguistically sound diachronic analysis integrating insights from typological* studies would provide a firmer foundation for a plausible synchronic* description of the Hebrew verbal system. In this initial section, I provide an introduction to tense and aspect categories, as analysed by recent linguistic theory, and to the Hebrew verbal system.

1.1 Tense and Aspect Categories

Since this paper will have extensive discussion of tense and aspect, it is important to define my terms right at the start. (Definitions of terms marked with an asterisk are also provided in a glossary of linguistic terms in Appendix A.) Tense refers to whether a verb is portraying a situation* (event or state*) in the past, present, or future. Aspect refers to how the temporal structure of a situation is portrayed, in terms of whether the focus is on one complete event or state, one intermediate stage of an event, or on repeated occurrences of an event or state.

According to Joan Bybee and Östen Dahl (1989:55), there are six major tense-aspectual categories which represent a large majority of the grammaticalized* tense-aspect verbal categories found in the languages of the world. I will quote their definitions and give additional explanation as necessary.

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2 Terms listed in the glossary (Appendix A) are marked at their first occurrence with a final asterisk. This use of the asterisk should be distinguished from an initial asterisk used for marking hypothetical reconstructed word forms which are not attested in any ancient text corresponding to the diachronic stage under discussion.

a. "**Perfective***, indicating that a situation is viewed as bounded." Perfective aspect portrays an event as a complete whole. The event is bounded* since the beginning and end of the event are included in the portrayal. English does not have a verb form which is used exclusively to express perfective aspect. This is because the English past tense can be used to express both perfective and imperfective* aspect. Examples of verbs expressing perfective aspect are the Greek Aorist*, the French *Passé Simple* and the Spanish Preterite.
b. "**Imperfective**, indicating that the situation is viewed as not bounded." Imperfective aspect focuses on an event or state as ongoing or continuous. There is no focus on the beginning or end of the event or state, which is hence portrayed as unbounded. English does not have a verb form expressing imperfective aspect. Examples are the French *Imparfait* and the Spanish Imperfect.
c. "**Progressive*** (or **continuous**), indicating the situation is in progress at reference time*." Progressive aspect portrays an event as ongoing. This is a subtype of imperfective. Reference time can be either the time of the speech act, or else some other reference point in the past or future. In English, these are exemplified by the Present Continuous *I am singing,* the Past Continuous *they were rejoicing*, and the Future Continuous *we will be rejoicing*.
d. "**Perfect*** (or **anterior***), indicating that a situation is being described as relevant at the moment of speech or another point of reference." Perfect aspect portrays an event occurring earlier than reference time together with some continuing relevance of that event. The continuing relevance of the event may be in terms of a continuing result, or some other implication of the event for the reference time. In English, this is exemplified by the Present Perfect *I have finished* (the continuing relevance is that I can now do something else) or Past Perfect *He had left* (the continuing relevance is that he was no longer there).
e. "**Future**, indicating that the speaker predicts a situation will occur subsequent to the speech event."
f. "**Past**, indicating that the situation occurred before the speech event."

Besides these there is a seventh default **present** category, which has zero marking in a majority of languages. Another category which will be important in our examination of Semitic* verbal systems is **resultative.** This is defined by Bybee, Perkins and Pagliuca (1994:54) as indicating "that a state exists as a result of a past action".

Of the above terms, present, past, and future are tenses, whereas perfective, imperfective, progressive, perfect and resultative are aspects. A combination of past tense and perfective aspect can be called preterite*.

The term "perfect" tends to cause confusion. It designates the semantic category exemplified in the English Perfect, indicating that a past event has continuing relevance. In Semitic languages, however, the term Perfect is often used to label verb conjugations* which are really perfective, contrasting to imperfective. The key difference between perfective and perfect is that perfective focuses on only one point in time but the perfect involves two points in time, one being the time of the event in question and the other the time of the continuing result. Because of this confusion, I will use the convention of capitalizing words which refer to a particular verb form in a particular language, e.g. the Arabic Perfect. This does not imply that the Arabic

Perfect actually has perfect meaning. I will sometimes mention the alternate term "anterior" when referring to the semantic category of perfect.

1.2 The Hebrew Verbal System

Any hypothesis of the diachronic development of the Hebrew verbal system needs to be based on an analysis of the synchronic meanings of the verb forms as found in a variety of Biblical texts. Such a detailed analysis lies outside the scope of this paper, so I will simply suggest primary meanings of the verb conjugations as a set of working assumptions.

The Hebrew verbal system has some unusual features. It is not that it has a large number of different tenses. Nor is it that the meanings of the verb forms are unusual. The central meanings of the main verb conjugations are similar to those found in many languages around the world: perfective, perfect, imperfective, future, past. In fact Talmy Givón remarks (1977:198) on the similarity of the Biblical Hebrew aspectual system to that of the Universal Creole* Aspectual system (the basic system found universally in creole languages around the world). Since the categories in such a system are presumably fairly basic compared to some more developed languages, this suggests that the Hebrew categories are not particularly unusual.

The weird thing about the Hebrew verbal system is the unusual way coordination* affects verb meaning. Coordination is achieved by attaching the prefix *wə-* or *wa-* meaning 'and' to the first word of the clause. The *wa-* form of the prefix is usually accompanied by a lengthening of the following consonant. Since the Hebrew consonant representing the *w* sound is called *waw,* both forms of the coordinating prefix can be referred to as *waw* prefixes. When the first word of the clause is a verb, the meaning of the verb is often radically different from that of the same form without the coordinating *waw* prefix. The meaning change affects different verb forms in different ways.

Morphologically*, finite* indicative* verbs fall into two types: those which indicate person, gender, and number mainly by prefixes (a few forms also have suffixes) and those which indicate person, gender, and number by suffixes only. In the literature there are no uniform agreed-upon names for these verb conjugations. This is because there is no consensus as to their primary meanings. Some scholars maintain that the distinction is that of tense: the suffix conjugation conveys past tense meaning and the prefix conjugation conveys present or future tense meaning. Other scholars maintain that these conjugations convey aspectual meaning, not tense. These scholars refer to the suffix conjugation as Perfect (by which they usually mean perfective aspect) and the prefix conjugation as Imperfect (by which they mean imperfective aspect). I consider that the conjugations combine tense meaning and aspectual meaning. There are also distinctions in terms of discourse function, but I will not discuss those here.

In Hebrew, when the first word of a coordinated clause is a verb, there are two possibilities with regard to the semantic effect of coordination on the meaning of the verb. On the one hand, the verb meaning may be more or less the same as the uncoordinated verb. On the other hand, the verb form may have a radically different meaning from that of the same form without the *waw* prefix. In this latter case there

are often phonological* differences which help signal the meaning change, such as different stress patterns in the verb or a different allomorph* of the coordinating prefix (*wa-* instead of normal *wə-*). Since these latter forms with *waw* are supposed to convey consecutive* or sequential* meaning, indicating that the designated event is sequential to the previous reported event, they are often called Waw-Consecutive forms. Whereas the primary meanings of the so-called Imperfect conjugation are imperfective aspect or future tense, the primary meaning of Waw-Consecutive plus Imperfect forms is past tense and perfective aspect. Similarly Waw-Consecutive plus Perfect forms usually convey future tense or imperfective aspect, quite different from the Perfect conjugation, the primary meanings of which are perfect or perfective aspect.

By way of illustration, Table 1 sets out the meanings English tense forms would have if the English verbal system had similar semantics to the Hebrew system.

TABLE 1

IMAGINARY ENGLISH VERBAL SYSTEM WITH HEBREW SEMANTICS

Tense form	Meaning	Hebrew equivalent	Name of Hebrew form
he killed	'he killed'	*qātal*	Perfect
and he killed	'and he'll kill'	*wəqātal*	Waw-Consecutive plus Perfect
he'll kill	'he'll kill'	*yiqtōl*	Imperfect
and he'll kill	'and he killed'	*wayyiqtōl*	Waw-Consecutive plus Imperfect

Because the meanings of the conjugations are debated, it is best to use a naming system based on form rather than meaning. I will use the conventional system that names the verb forms based on the verb root* *qtl* 'to kill' according to the actual spelling of each verb form for that root. Hence the so-called Perfect is called *qātal*, the Imperfect is called *yiqtōl*, the Waw-Consecutive with Perfect is called *wəqātal*, and the Waw-Consecutive with Imperfect is called *wayyiqtōl*. Two other forms, *wəyiqtōl* and *wəqā'taltî*, are formed with the conjunction *wə-* without the same sort of meaning change as is found in Waw-Consecutive forms. The *wəqā'taltî* form, with penultimate* stress, can be distinguished to a limited extent from the Waw-Consecutive form, since the Waw-Consecutive form sometimes has final stress. Many *wəqātal* forms, however, are formally ambiguous.

Even though the system is rather strange, it is quite workable. But the really difficult thing to explain is how such a system could have evolved diachronically. It is hard to imagine what mechanism of linguistic change could have led language speakers to reanalyze a coordinated form to mean something opposite to the uncoordinated form. The goal of this paper is to set forth a hypothesis of how this might have occurred.

The hypothesis will aim to provide a plausible account of how the Hebrew verbal system may have developed through time from the Proto-Semitic verbal system so as to reach the stage or stages represented in the Hebrew Bible and how the diachronic development impacts the range of meanings of the Hebrew verb conjugations. The following questions will be addressed:

1. What is the likely shape of the Proto-Semitic verbal system in terms of forms and their meanings?
2. What are some of the paths of diachronic development attested in other languages for the types of verb meanings found in the Proto-Semitic and Hebrew verbal systems?
3. What hypothesis of stage-by-stage diachronic development can best explain how the Proto-Semitic system evolved into the Biblical Hebrew verbal system?
4. What mechanisms of language change provided the impetus for change from each stage to the next?
5. What particular verb types and clause constructions were the initial locus of changes which later spread throughout the system?
6. What evidence is there in the biblical data of different diachronic stages of development of the verbal system and of relics of earlier stages?

1.3 Delimitations

This study will focus on those aspects of the verbal system which relate to the semantic distinctions between indicative verb conjugations. Therefore little attention will be given to non-indicative forms (imperative, jussive*, cohortative*) except as they impact the indicative forms. I will not examine energic* forms or finite uses of the infinitive* absolute. Similarly, I will not examine the development of the derived* stems, unless they impact the basic indicative verbal system.

2. Mechanisms of Semantic Change

In this section, I will outline some of the processes involved in the development of new grammaticalized semantic categories. Much of this material is based on Bybee, Perkins and Pagliuca (1994) and Heine, Claudi and Hünnemeyer (1991). Their methodological approach is typological, that is, it aims at classifying common types of linguistic change through the study of a large sample of languages from different language families.

2.1 Semantic Change

At any particular stage of a language, a lexical* item or construction will have a certain range of meanings. These can be divided up into more central meanings, sometimes called denotations*, and more peripheral meanings, sometimes called connotations*. Another way of differentiating between meanings conveyed by an utterance* is to distinguish the proposition actually designated by the utterance, and other propositions which are implied by it. These latter are called implicatures*. The process of semantic change occurs when peripheral meanings move to the center stage. Connotations become denotations.

The stages of a semantic change can be spelled out as follows. The expression in question is used in a variety of contexts. In certain contexts a certain implicature is associated with the central meaning. If this context occurs with sufficient frequency, language learners reanalyze the meaning, so that the meaning which was a peripheral

implicature becomes more central. Once this reanalysis has occurred, the expression can be used in other contexts with the new meaning. The new meaning gradually spreads to more and more contexts in which the new meaning would not have been evoked as an implicature in earlier stages of development.
The next thing that can happen is that the new meaning can crowd out the previous central meaning. This original meaning may become more peripheral. It may be preserved in certain limited contexts. This causes a "layering" effect in which remnants of earlier diachronic stages of the language can be found coexisting with later dominant meanings. This is the normal situation, although eventually the original meaning may disappear altogether.

2.2 Grammaticalization

Grammaticalization represents one type of semantic change in which a lexical form takes on a grammatical meaning. Heine, Claudi and Hünnemeyer (1991:29) explain the process as follows:

> The need for presenting a certain grammatical function ... in discourse leads to the recruitment of a lexical form for the expression of this function. The result is that the relevant lexical form acquires a grammatical status (Grammaticalized Form 1). Subsequently, there may be yet another, more abstract grammatical function ... that draws on Grammaticalized Form 1 for its expression – with the effect that a second grammaticalized form ... arises.

The lexical forms which are recruited can be referred to as "source structures". These may be individual lexemes* or whole propositions. They tend to be items of high frequency and portray concrete objects, processes or locations (Heine, Claudi and Hünnemeyer 1991:32). The acquired grammatical function can be referred to as the "target structure".
Grammaticalization can be seen as a process of metaphorical extension (Heine, Claudi and Hünnemeyer 1991:46). It involves mapping an image schema from a more concrete domain of conceptualization onto another more abstract domain.

2.3 Common Diachronic Paths

In this section, I will describe some of the common diachronic paths of semantic changes in the tense and aspectual meanings of verbs which have been found in languages of the world. This material is mainly based on Bybee and Dahl (1989) and Bybee, Perkins and Pagliuca (1994).
Bybee, Perkins, Pagliuca and Dahl have all been doing research on grammatical morphemes* denoting tense, aspect and modality in the languages of the world. In their research, they constructed databases of a random sample of languages representing all the language families in the world. Dahl's (1985) database included information from sixty-four diverse languages gathered from a questionnaire of more than two hundred carefully chosen sentences which were translated into each language. Bybee, Perkins and Pagliuca's (1994) database included information on seventy-four diverse languages gathered from reference grammars.
This research aimed to test the following hypotheses:

(1) Comparable meaning: "Grammatical morphemes in the languages of the world have comparable meaning; that is, the grammatical meaning is neither totally language-specific nor is it arbitrary." (Bybee, Perkins and Pagliuca 1994:37)
(2) Source determination: "The actual meaning of the construction that enters into grammaticization uniquely determines the path that grammaticization follows and, consequently, the resulting grammatical meanings." (Bybee, Perkins and Pagliuca 1994:9)
(3) Unidirectionality. Grammaticization occurs along certain diachronic paths in one direction only. For example: "Resultative constructions generalize to anteriors, which may then evolve into perfectives or pasts ... but the reverse direction is unknown." (Bybee, Perkins and Pagliuca 1994:12)
(4) Universal paths: "Any grammaticizations that begin with the same or similar source meaning can be expected to follow the same course of change." (Bybee, Perkins and Pagliuca 1994:14)

The research on both databases produced similar results. Certain grammatical morphemes with the same or similar meanings were found to occur widely in the languages of the world. These basic tense-aspect categories have already been mentioned in section 1.1. Evidence was also found to support the other hypotheses. The findings with regard to universal paths will be spelt out in some detail below.
Some findings of the research with implications for this study include the following:
(1) Retention of earlier meanings:

> Since ... semantic substance evolves in grammaticization and ... the meaning of the source construction determines the subsequent grammatical meaning, we are not surprised to find that certain more specific nuances of the source constructions can be retained in certain contexts long after grammaticization has begun. (Bybee, Perkins and Pagliuca 1994:16)

(2) Lack of a basic abstract meaning:

> The evidence from grammaticization suggests that it is not worthwhile to search for the one abstract meaning of each [grammatical morpheme], the least common denominator that underlies all its uses, but rather it is better to study the different uses of [grammatical morphemes] as though they were links on a chain, one having given rise to another. (Bybee, Perkins and Pagliuca 1994:17)

(3) It is common for grammatical morphemes to have similar, rather than contrasting, meanings:

> The rise of a new marker is not contingent on the loss or dysfunction of its predecessors, ... In fact, ... it is not unusual to find an array of grammaticized and grammaticizing constructions of different ages and sources sharing or competing for overlapping territories. (Bybee, Perkins and Pagliuca 1994:21)

Bybee and Dahl (1989) found several common diachronic paths for the development of tense and aspect grammatical morphemes. These are summarized in Table 2.

TABLE 2
COMMON DIACHRONIC PATHS

Initial construction	Initial grammaticalization	Next development	Final stage
be/have + past participle	resultative	perfect	perfective or past
main verb + finish/already main verb + throw away come + main verb	completive	perfect	perfective or past
locative + verbal* noun motion verb + main verb	progressive	imperfective or present	future
desire verb + main verb motion verb + main verb have/be + main verb	intention	future	

2.3.1 The Development of Perfects

There are four common sources for a perfect (=anterior) verb category:

1. copula* + past participle of main verb
2. auxiliary *have* + past participle of main verb
3. main verb + particle with an original meaning 'already'
4. main verb + auxiliary derived from verbs meaning 'finish', 'throw away' or 'come from'

Perfects derived from the first two sources usually develop from a resultative* construction. Those deriving from the last two sources usually develop from a completive* construction. Completive is defined as "signaling an action performed completely and thoroughly" (Bybee, Perkins, and Pagliuca 1994:57). I will not discuss these latter types any further since they have little relevance for Semitic languages. Rather I will focus on perfects which develop from resultatives.

Resultative aspect portrays a continuing state which is the result of a previous event. The first source above can be illustrated by the development of intransitive perfects in languages such as French or German. These are formed with the *be* copula plus the past participle. In French this *Passé Composé* has developed into a past tense. For example, *Il est allé* 'he went'.

The second source can be illustrated by the development of the English Perfect. As described by Kathleen Carey (1994), this construction originated as a resultative consisting of the possessive verb *have* plus the passive past participle of a transitive verb as a secondary modifier. An example would be: *We have our soup chilled*, where the meaning is that we possess the soup which is chilled (perhaps chilled by someone else). The participle is functioning as an adjective modifying the noun object. Stative verbs are not permissible in such resultative constructions since they portray an unchanging state, whereas resultatives "can only be formed from verbs whose interpretation involves some type of change". (Bybee and Dahl 1989:69)

The next stage involves reinterpreting the participle as being active, rather than passive so that the subject of *have* is necessarily the agent. In other words, we chill the soup and we have it. The focus is still on the final state, not the event. The participle "loses its adjectival nature and becomes part of the verb rather than an adjective modifying a noun". (Bybee, Perkins and Pagliuca 1994:68)

What verb types were the environment for this semantic change? Carey (1994:50) suggests that this active resultative meaning may have first appeared as an implicature in constructions with "external objects", i.e. designating physical processes, such as the example above with chilled soup. The grammaticalization of the meaning was conventionalized with verbs with "internal objects", specifically mental state verbs (e.g. *understand*, *decide*) and verbs of reporting (e.g. *say*, *tell*).

The next change leads to a construction with perfect meaning. This stage of the process applies equally to constructions derived from *be* or *have*. The event which was still in the background in the previous resultative construction is now in focus. This construction no longer designates a state, but rather an event which has continuing relevance. Carey (1994:64) suggests that "communication and perception verbs, rather than other types of event verbs, are the catalysts for the shift" from resultative to perfect meaning. This is because perception verbs (e.g. *see*, *hear*) do not fit easily with pure resultative meaning, and typically involve strong implicatures to perfect meaning.

The final stage is a change from perfect (=anterior) to perfective or simple past meaning. Bybee, Perkins, and Pagliuca explain this process as follows:

> The change of an anterior to a past or perfective is typical of grammaticization changes. On the semantic level, the change is clearly a generalization of meaning, or the loss of a specific component of meaning; the anterior signals a past action that is relevant to the current moment, while the past and perfective signal only a past action. The specification of current relevance is lost...
>
> Such changes occur because of the way language is used... Thus if a speaker wishes to frame his or her contribution AS THOUGH it were highly relevant to current concerns, then the speaker might use the anterior more often than would be strictly necessary for the communication of the propositional content of the message. Such overuse weakens the force of the current relevance component, and eventually the hearer infers only past or perfective action from the anterior and no sense of current relevance. (Bybee, Perkins, and Pagliuca 1994:86-87)

An intermediate stage in this process is the use of a perfect form with recent past meaning. An example of this is the "hot news" Perfect in English. This is a use of a Perfect verb for a recent event which is unknown to the hearer and hence is "hot news". For example: "Iraq has invaded Kuwait!" Another type of recent past usage of a perfect verb is found in the Alicante dialect of Spanish. The Present Perfect is used as a hodiernal* perfective, that is, referring to situations occurring earlier on the same day. It is suggested that "once the Present Perfect is established as a hodiernal past rather than a past with current relevance, it will gradually extend beyond the limits of the day and will eventually become a general perfective". (Bybee, Perkins, and Pagliuca 1994:87)

Whether a perfect becomes a perfective or a simple past depends mainly on whether the language has a past imperfective verb form or not. If a language has a past imperfective, the perfect will probably take on only perfective functions and not take over the functions of the imperfective as well. If there is no past imperfective, the perfect can take on both perfective and imperfective past functions to become a simple past (Bybee, Perkins, and Pagliuca 1994:85).

An interesting aspect of the developments of perfectives is the frequent attestation of perfectives which have present tense meaning with stative verbs. Bybee, Perkins, and Pagliuca (1994:92) state: "When perfectives do apply to stative predicates, the effect is usually to signal a present state, not a past one, despite the fact that perfectives are usually past." This can be explained diachronically from the way resultatives and perfects tend to interact with stative predicates. A resultative generally cannot be used with stative predicates, but when its meaning develops and generalizes to become a perfect, various possible meanings arise when it is used with stative predicates. It may emphasize "the completeness with which the state applies to the entity" (Bybee, Perkins and Pagliuca 1994:74). It may have inchoative meaning, that is, "it makes the stative predicate signal a change of state" (Bybee, Perkins and Pagliuca 1994:75). Both of these meanings may later generalize to simply designate a present state. Meanwhile, the same resultative or anterior verb form used with fientive* verbs (i.e. dynamic or nonstative verbs) eventually develops into a perfective. Hence one ends up with a verb form which is past perfective with fientive verbs and present with stative verbs.

2.3.2 The Development of Progressives

Progressives generally derive from a locative* expression (e.g. an expression meaning 'be here', 'be in a place') or from a motion verb (e.g. *go*, *come*). There are also cases of progressives which derive from a *be*-auxiliary plus a non-finite verb form (participle or infinitive) (Bybee, Perkins and Pagliuca 1994:130-131). The locative concept of being at a place is extended to the aspectual concept of being at a certain stage of an activity. Hence it takes on the meaning of being in the midst of an ongoing process, which is the meaning of progressive. Progressive aspect focuses on the middle stage of an event, ignoring its beginning and end.

The next stage of development is an extension to imperfective meaning. Imperfective aspect includes progressive, habitual*, continuative* and gnomic* as subtypes. All of them involve different ways of viewing an event as continuing without change. For progressive, this is because the end of the event has not been reached yet. For habitual, it is because an event is repeated again and again. Continuative applies to states that continue without any changes. Gnomic situations are those which hold for all time. Hence the semantic shift from progressive to imperfective involves extending the meaning to a wider range of verb types, for each of which imperfective aspect has a somewhat different interpretation.

Bybee, Perkins and Pagliuca (1994:141, 148) suggest that the first major step in a progressive becoming an imperfective is an extension of meaning to include habitual. This would tend to precede a further extension to continuative meaning with stative verbs.

2.3.3 The Development of Futures

The most common sources of futures are movement verbs, such as *come* and *go*, modal auxiliaries of desire or ability such as *want* and *can*, and the auxiliaries *have* or *be*. Bybee, Perkins and Pagliuca (1994:244) call these primary futures. The initial construction tends to develop a meaning of intention which then further develops into a future tense. I will not discuss these in detail since they do not seem to be relevant to the Hebrew verbal system.

The other main type of futures are aspectual futures. They represent a further step in the development of aspectual verb forms as outlined above in the section on progressives. Future becomes one of the meanings of progressive, present or imperfective forms. Although progressives usually develop to become imperfectives or presents, there are also cases of progressives taking on future meaning. Examples are progressive forms in English, Baluchi and Alyawarra, an Australian language (Bybee, Perkins and Pagliuca 1994:276-277). There are also cases of imperfectives with future uses, such as is found in the Rukai language of Taiwan. The reduplicated Rukai imperfective can be used for progressive, iterative, habitual and future (Bybee, Perkins and Pagliuca 1994:278).

Less common are perfectives which have secondary future meanings. For example, in the Abkhaz language of Georgia and the Baining language of Papua New Guinea, a perfective form can also be used with immediate future meaning (Bybee, Perkins and Pagliuca 1994:278). A more common source of immediate future forms are movement verbs, such as *come*. There is some evidence that immediate future forms may develop into general futures (Bybee, Perkins and Pagliuca 1994:271).

In many languages, futures can also be used as imperatives. Bybee, Perkins and Pagliuca (1994:273) remark: "Imperative is the most commonly occurring other use for futures. We propose that the imperative use develops out of the future use, rather than vice versa, because the futures that are used as imperatives in all other respects have the properties of primary futures."

The various diachronic processes outlined in this section provide a helpful framework for working out the probable development of the Hebrew verbal system.

3. The Proto-Semitic Verbal System

In this section, I introduce the comparative Semitic data which provides the evidence needed to trace the diachronic development of the Hebrew verbal system.

3.1 Semitic and Afrasian Languages

A reconstruction* of the Proto-Semitic verbal system must be based on data from the whole range of Semitic languages. Data from the larger Afrasian* language family, of which Semitic is one branch, may also be relevant. Evidence for a conjugation from Afrasian languages would suggest that the conjugation in question is not only a Proto-Semitic conjugation, but also an even earlier Proto-Afrasian* conjugation.

In Table 3 I set out the linguistic affiliation* and location of the languages of the Semitic and Afrasian language families, as well as the approximate date of major textual evidence.[3] Languages are listed more or less from east to west and from oldest to youngest.

TABLE 3

SOME SEMITIC AND OTHER AFRASIAN LANGUAGES

Language	Affiliation	Location	Date of Texts
Akkadian	Northeast Semitic	Mesopotamia	2500-500 B.C.
Eblaite	Northeast/Northwest? Semitic	Ebla	c. 2800 B.C.
Ugaritic	Northwest Semitic: Canaanite	Ras Shamra on the Syrian coast	c. 1365-1200 B.C.[4]
Amarna Canaanite	Northwest Semitic: Canaanite	Syria, Palestine	14th century B.C.
Phoenician	Northwest Semitic: Canaanite	Mediterranean	1st millennium B.C.
Hebrew	Northwest Semitic: Canaanite	Judea, Samaria	1st millennium B.C.
Moabite	Northwest Semitic: Canaanite	Moab	9th century B.C.
Old Aramaic	Northwest Semitic: Aramaic	Syria	10th-8th century B.C.
Ya'udic	Northwest Semitic: Aramaic	Sam'al	10th-8th century B.C.
Aramaic	Northwest Semitic: Aramaic	Mesopotamia, Palestine, Egypt	7th-2nd century B.C.
Syriac	Northwest Semitic: Aramaic	Syria	3rd-13th century A.D.
Arabic	Southwest Semitic: Arabic	Arabia	4th-7th century A.D.
Mahri[5]	Southwest Semitic: Arabic	South Arabia	20th century A.D.
Ethiopic	Southwest Semitic: Ethiopic	Ethiopia	1st millennium A.D.
Egyptian	Afrasian: Egyptian	Egypt	3rd-1st millen. B.C.
Sidamo	Afrasian: Eastern Cushitic	Ethiopia	20th century A.D.
Mubi	Afrasian: East Chadic	Chad	20th century A.D.
Libyan	Afrasian: Berbero-Libyan	Algeria, Tunisia	2nd century B.C.
Berber	Afrasian: Berbero-Libyan	Morocco	20th century A.D.
Kabyle	Afrasian: Berbero-Libyan	Algeria	20th century A.D.

3.2 Diakonoff's Reconstruction

There are many views concerning the shape of the Proto-Semitic verbal system. As a starting point, I present the reconstruction of I.M. Diakonoff, who is a leading authority of the study of comparative Semitic, even though the arguments presented in this paper will lead me to positing a somewhat different reconstruction.

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3 Harris (1939:17-24), Moscati (1964:6-15). Affiliation and geographical information for the Afrasian languages from "Genetic tree for Ethnologue, 12th ed., 1992" (1995:1-18).

4 Segert (1984:13).

5 Alternative spelling: Mehri.

TABLE 4

PROTO-SEMITIC STRUCTURE OF VERBAL FORMS

(adapted from Diakonoff 1988:89)

	Imperative	**Perfective, Jussive**	**Imperfective**	**Subordinate**
Transitive verb	**qutul*	**yaqtul*	**yaq(a)tal*	**yaqtulu*
Intransitive verb	**qVtal*	**yVqtal*		**yVqtalu*

The only change I have made in Table 4 is to use the root *qtl*, whereas Diakonoff used the root *prs*. *V* represents a vowel of indeterminate quality (either *i, u* or *a*). Subordinate* refers to a verbal form used in subordinate clauses. Note that for intransitive* verbs there is no distinction between perfective and imperfective. In addition to the forms shown in Table 4, Diakonoff posits a stative* verb conjugation **qatVla* which expresses a state* as the result of an accomplished action.

In the sections below, I will summarize the evidence for each of the forms from Table 4 except the imperatives, since they do not form a part of my investigation. I restrict myself to the basic G stem*. Unless otherwise noted, the information comes from I.M. Diakonoff (1988) or Sabatino Moscati (1964). I will not discuss the reasoning that Diakonoff uses to reconstruct the Proto-Semitic verbal system from the evidence presented here. I merely want to give a brief overview of the attested forms on which the reconstruction must be based.

*3.3 Evidence for Perfective *yaqtul*

Table 5 sets out the verb forms for various languages which can be regarded as reflexes* of Proto-Semitic perfective **yaqtul*. Note that for Moabite, Ugaritic and Old Aramaic, transcriptions only provide information about the consonants.

TABLE 5

REFLEXES OF PROTO-SEMITIC PERFECTIVE **yaqtul*

Language	**Verb form**	**Conventional name or meaning**[6]
Akkadian	*iqtul*	Preterite*
Eblaite	*iqtul*	preterite[7]
Ugaritic	*yqtl*	narrative past[8]
Amarna Canaanite	*yiqtul*	preterite[9]
Hebrew	*wayyiqtōl*	Waw-Consecutive with Imperfect
Hebrew	*yiqtōl*	preterite (archaic usage)
Moabite	*wyqtl*	consecutive imperfect[10]

6 Capital letters indicate a conventional name; lower case indicates a meaning as described by a particular scholar.

7 Müller (1984:152).

8 Segert (1984:89).

9 Rainey (1996:222-224).

10 Garr (1985:185).

Old Aramaic	*(w)yqtl*	consecutive imperfect[11]
Arabic	*yaqtul*	Jussive
Berber	*iqtəl* < **yaqtul*[12]	Perfective
Proto-Cushitic	**yaqtil*	Perfective
Libyan	*iqtel*	Preterite[13]

The Arabic Jussive shows its semantic affinity to the preterite **yaqtul* in its use with the negator *lam* to convey the negative past. In Hebrew, besides the *wayyiqtōl*, there are also preterite uses of *yiqtōl*, especially in archaic texts.

*3.4 Evidence for Imperfective *yaqatal*

Table 6 sets out the verb forms for various languages which are regarded by Diakonoff as reflexes of Proto-Semitic imperfective **yaqatal*.

TABLE 6

REFLEXES OF PROTO-SEMITIC **yaqatal*

Language	**Verb form**	**Conventional name**
Akkadian	*iqattal*	Present
Mahri	*yiqōtel* <**yaqatal*	Imperfective (transitive)
Ethiopic	*yəqattəl*	Imperfect Indicative
Berber	*iqtəl* < **yaqtal*[14]	Imperfective
Libyan	*iqattel*	Present[15]

As can be seen, evidence for Proto-Semitic **yaqatal* is rather scarce. This is a reason that not all scholars accept that it was a Proto-Semitic form. It is unclear whether one should regard the proto-form* as having a geminated (doubled) medial consonant, as in Akkadian and Ethiopic, or whether the gemination* is a secondary development, as Diakonoff claims.

*3.5 Evidence for Subordinate *yaqtulu*

Table 7 sets out the verb forms for various languages which can be regarded as reflexes of Proto-Semitic subordinate clause verb form **yaqtulu*.

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11 Garr (1985:184).

12 The Berber perfective form *iqtəl* is supposed to be derived from a Proto-Berber form **yaqtul* (Diakonoff 1988:86).

13 Moscati (1964:133) gives the form *ifres*, citing Rössler (probably from: *Der semitische Charakter der libyschen Sprache*. ZA 50 [1952]:121-150).

14 The Berber imperfective form *iqtəl* is supposed to be derived from a Proto-Berber form **yaqtal* (Diakonoff 1988:86).

15 Moscati (1964:133) gives the form *ifarres*, citing Rössler.

TABLE 7

REFLEXES OF PROTO-SEMITIC **yaqtulu*

Language	Verb form	Conventional name
Akkadian	*iqtulu*	Subjunctive
Ugaritic	*yqtl*	Imperfect
Amarna Canaanite	*yaqtulu*	Imperfect[16]
Hebrew	*yiqtōl*	Imperfect
Aramaic	*yiqtul*	Imperfect[17]
Arabic	*yaqtulu*	Imperfect
Ethiopic	*yəqtəl*	Subjunctive

*3.6 Evidence for Intransitive *yVqtal*

Table 8 sets out the verb forms for various languages which can be regarded as reflexes of Proto-Semitic intransitive **yVqtal*.

TABLE 8

REFLEXES OF PROTO-SEMITIC **yVqtal*

Language	Verb form	Conventional name
Akkadian	*iqtil, iqtal*	Preterite (stative verbs)
Eblaite	*yiqtal*	Preterite (transitive/intransitive)[18]
Hebrew	*yiqtal*	Imperfect (intransitive)
Aramaic	*yiqtal*	Imperfect (intransitive)[19]
Arabic	*yaqtalu*	Imperfect (intransitive)[20]
Mahri	**yuqtal, *yiqtal*	Imperfective (intransitive)
Ethiopic	*yəqtal*	Subjunctive (intransitive)

*3.7 Evidence for Stative *qatVla*

Table 9 sets out the verb forms for various languages which can be regarded as reflexes of Proto-Semitic stative **qatVla*.

16 Rainey (1996, II:227-228).

17 Rosenthal (1961:44).

18 Müller (1984:152).

19 Rosenthal (1961:43-44).

20 Arabic Imperfects of the form *yaqtalu* generally correspond to Perfects with an *i* vowel after the second consonant (*qatila*), and generally denote a state or the entering of a state (Haywood and Nahmad 1965:94, 112).

TABLE 9
REFLEXES OF PROTO-SEMITIC *qatVla

Language	Verb form	Conventional name or meaning
Akkadian	*qatil*	Permansive
Eblaite	*qatala, qatila*	stative, preterite[21]
Ugaritic	*qtl*	Perfect
Amarna Canaanite	*qatal, qatil, qatul*	past tense, present/future tense[22]
Hebrew	*qātal, qātēl, qātōl*	Perfect
Ya'udic	*wqtl*	Perfect [23]
Aramaic	*qətal, qətil*	Perfect
Arabic	*qatala, qatila, qatula*	Perfect
Mahri	*qatōl*	Perfect[24]
Ethiopic	*qatala*	Perfect
Ethiopic	*qatīl*	Gerund
Egyptian	*sḏm-w*	Pseudo-participle[25]

In addition to the forms cited above, related suffix conjugations occur in a number of Afrasian languages. These include the Perfective in Sidamo, the Qualitative in Kabyle,[26] and the suffixed form of the Perfect in Mubi (Diakonoff 1988:92-93).

*3.8 Evidence for *qātilu Participle*

Table 10 sets out the verb forms for various languages which can be regarded as reflexes of Proto-Semitic *qātilu* Participle.

TABLE 10
REFLEXES OF PROTO-SEMITIC *qātilu

Language	Verb form	Conventional name
Akkadian	*qātilu*	Active Participle
Hebrew	*qōtēl*	Active Participle
Ugaritic	*qtl*	Active Participle
Aramaic, Syriac	*qātel*	Active Participle
Arabic	*qātil*	Active Participle
Ethiopic	*qātəl*	substantives

From the above tables, it can be seen that the evidence for perfective *yaqtul* and the *qātilu* Participle is quite clear, since there are quite a few languages with verb

21 Müller (1984:154-159).
22 Rainey (1996:348-365).
23 Garr (1985:185).
24 Bergsträsser (1983:154).
25 For the Egyptian conjugation I have used the conventional root *sḏm* 'hear' rather than *qtl*.
26 Cf. Rabin (1984).

conjugations which are similar in meaning and form. The situation with the other conjugations is more complicated. Many languages have conjugations related to **qatVla*, but the meanings differ significantly. The evidence is relatively less for each of the other prefix conjugations (**yaqatal*, **yaqtulu*, and **yVqtal*), and the meanings of these forms often differ. As a result there is more scope for controversy in reconstructing the proto-forms in these latter cases.

4. Preterite **yaqtul* and *wayyiqtōl*

In the next few sections, I will review the main theories about how the Proto-Semitic verb forms mentioned above could have changed their meaning so as to take on the meanings they have in Biblical Hebrew. One way of doing this would be to look at the major theorists one by one, describe their total theory and give an evaluation. This is what Leslie McFall (1982) does for the diachronic theories of Hans Bauer, G.R. Driver and T.W. Thacker. I will not duplicate that approach. Rather I will look at the verb conjugations, one at a time, and refer to various views of their development according to different scholars.

In this section, I will discuss in detail the evidence supporting the development of *wayyiqtōl* from Proto-Semitic preterite (that is, past perfective) **yaqtul*. This is a good place to start because the evidence is quite compelling. The main diachronic changes undergone by this conjugation seem to be phonological and morphological rather than semantic. That makes the task of reconstruction easier since phonological and morphological changes are easier to trace than semantic changes.

First I will survey the evidence in various Semitic languages which forms the basis for reconstructing a Proto-Semitic preterite **yaqtul* conjugation. Then I will address the question of whether or not **yaqtul* had omnitemporal* meaning at an earlier stage of its development. Lastly I will address the question of how preterite meaning of **yaqtul* came to be associated with clause-initial coordinated verbs (*wayyiqtōl*) to the extent that this meaning was preserved in that context even though it was lost in most other contexts.

*4.1 Evidence for Proto-Semitic Preterite *yaqtul*

With regard to perfective **yaqtul,* Diakonoff states (1988:85):

> All Semitic, Cushitic and Berbero-Libyan languages possessed, at a certain time in their development, a prefixal conjugation of the verbs of action, ... characterized by a reduced (usually *i/u*) vocalism, having the pattern **ja-(C_1)C_2VC_3-*, and being used for the Perfective (Punctual) aspect as well as for the Jussive mood.

Some of the evidence for the above statement was given in summary form earlier in Table 5 of section 3. I will spell out in more detail below the evidence from Semitic languages.

4.1.1 Evidence from Akkadian and Eblaite

The strongest evidence is from Akkadian. In Akkadian preterite meaning is expressed by *iqtul*, which is close to Proto-Semitic **yaqtul*. In Old Akkadian, there is some evidence that some forms of the preterite were written *yiqtul*, suggesting that the word-initial *y-* had not yet elided. (Gelb 1952:208-211)
An *iqtul* preterite is attested in Eblaite, as shown by examples such as *ig-mul-da-mu* 'Damu did well', *ik-bù-ul-ma-lik* 'Malik fettered', *[i]k-tub* 'he wrote', *ip-ḫur*+GN 'GN gathered'. (Müller 1984:152)

4.1.2 Evidence from Old Aramaic

In Aramaic, the suffix conjugation is used for preterite meaning. There is, however, evidence from Old Aramaic of the use of a *wyqtl* prefix conjugation for a narrative past tense. Three examples are found in the ninth century Zakkur text (Garr 1985:184). There are also six examples of preterite prefix conjugations found in an Old Aramaic inscription from Tell Dan (Tropper 1993:404; Muraoka 1995). Of these, four are preceded by the conjunction *waw* (corresponding to Hebrew *wayyiqtōl*), and two have no conjunction (corresponding to Proto-Hebrew **yaqtul)*.
Randall Garr (1985:185) suggests that:

> The few attestations of the consecutive imperfect, in contrast to numerous examples of the historical perfect, suggest that the consecutive imperfect was already (becoming) obsolete by the ninth century (Zakkur). Thereafter, the consecutive imperfect fell into total disuse.

4.1.3 Evidence from Hebrew

The Hebrew evidence consists of the use of *wayyiqtōl* as the normal conjugation to indicate the preterite in narrative as well as the use of *yiqtōl* as a preterite after certain conjunctions and in archaic texts such as early or archaizing poetry. Examples of the latter can be found in section 9.

4.1.4 Evidence from Amarna Canaanite

According to Anson Rainey (1996, II:222-227), Amarna Canaanite has a *yaqtul* preterite, used in both main clauses and subordinate clauses. It is relatively rare in texts from Byblos (which tend to use the suffix conjugation for past tense), but more common in texts from other localities.
The Amarna evidence is especially relevant to the diachronic development of Biblical Hebrew, since the texts come from the same geographic location and represent a stage of linguistic development hundreds of years earlier than the biblical texts. Amarna Canaanite is the closest we can get to a direct ancestor of Biblical Hebrew. William Moran (1961:64) says: "There is no reason why, allowing for minor differences, we should not regard Byblian usage as comparable with that of contemporary Hebrew."[27]

[27] Moran's research focused on the Amarna tablets from Byblos.

4.1.5 Evidence from Arabic

The so-called Jussive *yaqtul* is used with the negative adverbs *lam* 'not' and *lamma* 'not yet' to express the negative past tense, as well as with *ʾiḏ* 'then' in reference to past time (G.R. Driver 1936:87). This suggests that the earlier preterite meaning of *yaqtul* has been preserved only in these contexts. Elsewhere preterite meaning is expressed by *qatala*.

4.1.6 Evidence from Ethiopic

In Ge'ez (the ancient liturgical dialect of Ethiopic), preterite **yeqtel* is used after conjunctions meaning 'before' (Smith 1991:12). Although Ethiopic normally uses the suffix conjugation for preterite, Chaim Rabin (1984:395) points out that for the common verb *bəḥla* 'to say', the usual narrative form is *yəbē*, with the expected Perfect *bəhla* appearing only in late works. This suggests that *yəbē* is a frozen survival of an early prefix preterite conjugation in Ethiopic.[28]

4.2 Earlier Meanings of *yaqtul

From the above evidence it can be safely concluded that **yaqtul* was a Proto-Semitic verb conjugation with preterite meaning. Evidence from Afrasian languages such as Berber and Libyan (Table 5 in section 3) suggest that the conjugation was found in Proto-Afrasian as well.

Has **yaqtul* always had preterite meaning? Bauer (1910:10-11) suggests that in Proto-Semitic, there was only one verb form, **yaqtul*, which was timeless or omnitemporal.[29] This view is echoed by Blake (1951:77) who refers to it as an omnitemporal form. Bauer suggests (1910:15-16) that **yaqtul* became restricted to the past sphere because of the rise of **qatala* as a present participle.

Bauer's view seems to be based on the supposition that very ancient languages would have had a primitive stage in which there were very few tense or aspectual distinctions. This is combined with the idea that the Semitic languages were primitive as compared to European languages (see DeCaen 1996:140-141). There is little evidence to support such views. Studies of pidgin* and creole languages have shown that such newly created languages, although initially limited in vocabulary, always have a functional tense-aspect system. In particular, the category of past or anterior tends "to emerge early in any language system. ... [This is] likely to stem from a widespread need in human life everywhere to distinguish between past (or anterior) and nonpast". (J. Aitchison 1994:3183)

Often the basic semantic oppositions in a language are more enduring than the actual forms expressing those oppositions. Thus it is more natural to assume that the perfective-imperfective opposition in Semitic and Afrasian languages may well have been present as far back as one might be able to go, even if we have no evidence as to what forms may have expressed that distinction millennia ago. Heine, Claudi, and Hünnemeyer (1991:246) remark:

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28 Dillman (1907:172) categorizes this usage as a historic present.

29 "mit zeitlos d.h. allzeitigem Verbum haben wir mithin auch das Protosemitische aufzufassen. Jaqtul war die einzige Form, in der jene Menschen, ... verbale Beziehungen auszudrücken vermochten..."

> In the literature on grammaticalization, there are indeed many examples suggesting that, once a given grammatical form declines and/or disappears, a new form tends to be recruited on the same conceptual pattern as the old one, with the result that a kind of morphological cycle emerges.

So there is no sufficient reason to posit an omnitemporal **yaqtul* as Bauer does, or alternatively, a **qatil* with "universal usage" as G.R. Driver (1936:28) does. Rather we may suppose that at some point in the early history of Afrasian, **yaqtul* arose by a normal diachronic path to fill the past perfective semantic slot which had already been established as a conceptual category since the genesis of the Afrasian language family.

*4.3 The Development of wayyiqtōl from *yaqtul*

Preterite meaning is particularly associated with the mainline* events of narrative. In Hebrew, mainline events tend to be portrayed with verb-initial clauses. They also tend to have a coordinating conjunction to mark sequence. Hence in terms of frequency, the most frequent use of preterite **yaqtul* would have been in clause-initial position with a coordinating conjunction, that is **wayaqtul*. When a new preterite conjugation arose (**qatala*; see section 7), it tended to replace **yaqtul* except in this most frequent occurrence. Eventually, the clause-initial position and *waw* conjunction were reanalyzed as markers of preterite meaning. Later the form underwent a number of phonological changes. The initial consonant was geminated (doubled), perhaps as a way of preserving the *a* vowel of the **wa-* conjunction, when the rest of the **wa-* conjunctions underwent a phonological change to become *wə-*. The motivation for preserving the vowel might be to help distinguish preterite *wayyiqtōl* from imperfective *wəyiqtōl* (cf. Müller 1991:146-150). Another sound change caused the final *u* of *wayyaqtul* to change to *ō resulting* in *wayyaqtōl*. Finally, a late sound change caused the initial *a* of the verb stem to change to *i*, resulting in *wayyiqtōl*.[30]

5. The Development of Imperfective *yiqtōl*

In this section, I will discuss in detail the evidence relating to the development of the imperfective *yiqtōl*. There are several hypotheses as to the Proto-Semitic source of this conjugation. The first one is that **yaqtulu* is derived from Proto-Semitic perfective **yaqtul*. The second hypothesis is that **yaqtulu* was a subordinate clause form in Proto-Semitic which later extended its meaning to become an imperfective. This is Diakonoff's hypothesis. The third hypothesis is that **yaqtulu* was already imperfective in Proto-Semitic, in which case it has undergone little semantic change.

[30] These sound changes are discussed in Stage 8 of Section 8. For a discussion of the development of *wayyiqtōl* see Smith (1991:1-6).

*5.1 Perfective *yaqtul as the Source*

Bauer suggests that in West Semitic the appearance of the *qa'talta* form in the perfective meaning area of *'yaqtul*[31] forced *'yaqtul* to move into the non-perfective area corresponding to the Present Participle, namely present, future, and imperfective (1910:18, 25-26).[32] F.R. Blake (1951:77) gives a similar view suggesting that a two tense system developed as *qatal* became the normal expression of past time, with the prefix conjugation "as the normal expression of present-progressive past-future-modal ideas".

Bauer links the difference in meaning of the Waw-consecutive forms to an ancient difference in stress.[33] In other words, the shift in semantic territory of *'yaqtul* was accompanied by a shift in stress to become *yaq'tul* (McFall 1982:102). This is linked to the distinction between archaic *wayyiqtōl* forms with retracted stress on the penultimate syllable, e.g. *way'yāqom*, versus *yiq'tōl* forms with final stress.

This theory has a number of weak points. It gives too great a role to stress as the key distinction between different meanings. This is problematical in view of the difficulty of reconstructing Proto-Semitic stress patterns[34] as well as the evidence adduced by Revell (1984:443) claiming that retracted stress in *wayyiqtōl* forms was a late secondary development. The theory does not propose a natural semantic mechanism that could have caused the supposed meaning change. It was propounded before further analysis of evidence from Northwest Semitic languages such as Amarna Canaanite shed new light on the pattern of diachronic development (Rainey 1986).

5.2 The Subordinate Verb Form Hypothesis

Diakonoff (1988) hypothesizes that **yaqtulu* was a subordinate clause verb form in Proto-Semitic which later took on imperfective meaning in main clauses in Hebrew and other West Semitic languages.

5.2.1 Evidence from Akkadian and Ethiopic

Akkadian and Ethiopic provide the main evidence for this hypothesis, since **yaqtulu* occurs in both languages as a subordinate clause form, a so-called Subjunctive. The supposition is that Akkadian and Ethiopic preserve the Proto-Semitic system in this respect.

Diakonoff (1988:103) suggests that Akkadian **yaqtulu*

> Probably originated ... from a form of nominalization of the finite verb in subordinate clauses by a case marker: a phenomenon amply attested in Cushitic languages. In Akkadian it is probably a locative case marker *-u* (< **um?*).

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31 Stress is marked on these forms since it is important in Bauer's theory.

32 "Im Westsemitischen ist die perfektische Funktion von qatala übernommen worden, während der Rest (also Präsens, Futurum und Imperfekt unserer Sprachen) dem Imperfekt verblieben ist ... der Zeitsphäre eines Participium presentis." (1910:25-26)

33 "Die einzig annehmbare Erklärung kann meines Erachtens nur die sein, dass in der Betonung ebenso wie in der Bedeutung dieser Formen ein Archaismus vorliegt." (1910:37)

34 Moscati (1964:65): "We lack sufficient data to determine the position of stress in Proto-Semitic."

5.2.2 Problems with the Subordinate Verb Form Hypothesis

While this hypothesis has some plausibility, there are some problems with it. First, it reconstructs Proto-Semitic **yaqtulu* as being a subordinate clause form based primarily on the evidence of only two languages. The semantic developments in the larger number of languages in which **yaqtulu* is a general imperfective not restricted to subordinate clauses all have to be regarded as innovations.

A second problem is explaining the mechanism of semantic change that would cause a subordinate clause form to change into an imperfective. There is little if any evidence of such a process attested in other languages. G.R. Driver (1936:78) suggests that in Arabic, "with the inflectional decay of the language, however, this *-u* came to be freely attached to any verbal form, whether in the indicative or in the subjunctive mood." Subsequently it "was erroneously retained only with the indicative mood." A process which must be characterized as being "erroneous" seems somewhat unnatural and implausible.

A. Hamori (1973:320-322) suggests a line of development by means of which subordinate **yaqtulu* could have become a primary, independent form, replacing **yaqattal* as the imperfective form in West Semitic. He suggests that the context in which the initial semantic shift could have taken place would be a construction with the sequence: *yaqtul* – Subject – *yaqtul* + *u*. If, for example, the first *yaqtul* was 'came in' and the second dependent *yaqtul* + *u* was 'spoke', the meaning would be "A man who spoke came in." He compares this to a similar construction: *yaqtul* – Subject – *yaqattal*. With the same verbs this would mean: "A man came in speaking." Hamori (1973:322) claims: "The functions of *yaqattal* and *yaqtulu* show a clear overlap. It is this initial crossing of functions that allows *yaqtulu* to take over all the functions of *yaqattal* when the latter dies out in Proto-West Semitic." However, the overlap is not that clear. The two constructions differ in whether the dependent verb is perfective or imperfective. The choice of an activity* verb 'speak' in the example makes the contrast in aspect less marked. If Hamori had used an accomplishment* verb in his example, the contrast would have been much more perceptible, for example "A man who beat his wife came in" versus "A man came in beating his wife." Such a restricted context of not very clear overlap only valid for certain verbs does not explain why a non-imperfective subordinate verb form should change its meaning to become imperfective.

This leads to the third problem, which relates to the **yaqat(t)al* imperfective form. The main reason Diakonoff does not think that **yaqtulu* was imperfective in Proto-Semitic is that he thinks **yaqatal* was the Proto-Semitic imperfective form. The problem with this hypothesis is that one needs to explain the absence of a reflex of **yaqatal* or **yaqattal* in the Northwest Semitic branch and the Arabic branch of Southwest Semitic.

Earlier scholars thought they detected a **yaqattal* conjugation in Ugaritic, Amarna Canaanite, and Hebrew.[35] But this has been shown to be not the case by T.L. Fenton (1970) and Rainey (1975:423), who states:

[35] For example, Goetze (1938), Moscati (1964:132), O. Rössler (1961): *Eine bisher unbekannte Tempusform im Althebräischen*. ZDMG 111:445-451. See also Müller (1983:43-45). Early analysts

> Therefore it is abundantly clear that all attempts to find traces of *yaqattal/yiqattal* in Ugaritic and Hebrew are flatly contradicted by the WS [Western Semitic] influences in the EA [El Amarna] tablets. We do not believe that a geminated form of the G stem ever existed in any NWS [Northwest Semitic] dialect at any documented stage of this language family!

In view of this evidence, if one wants to maintain that **yaqattal* was a Proto-Semitic conjugation, one has two options. On the one hand, one might maintain that **yaqattal* was present in Northwest Semitic and the ancestor of the Arabic languages, but that it disappeared before the earliest attested texts in these languages. G.R. Driver (1936:83), for example, approves Torczyner's suggestion[36] "that Hebrew may once have possessed such a tense but must have lost it in the pre-literary period, as no trace of it survives in the written language". This sort of argument from silence has little force.[37] Hetzron (1976:105) suggests that "the disappearance of -Q*a*TTVL as a Nonpast stem in Central Semitic [i.e. Northwest Semitic plus Arabic] may be justified by its quasi-homonymy with a derived conjugation (*pi'el* or II form, characterized by gemination of the mid radical)".
On the other hand, one might maintain that there was a significant degree of language variation in Proto-Semitic, and that some language varieties used **yaqattal* whereas others did not. The former language varieties developed to become Akkadian and Ethiopic whereas the latter developed to become the Northwest Semitic languages and the Arabic languages. In effect, such a view is tantamount to saying that **yaqattal* was not a well-established Proto-Semitic conjugation, which brings us to the next hypothesis.

*5.3 *yaqtulu as Proto-Semitic Imperfective*

If we posit **yaqtulu* as being the Proto-Semitic imperfective conjugation, we avoid some of the problems in the above hypotheses. This is the position of Jerzy Kuryłowicz (1972). With this hypothesis, there is no need to seek a mechanism of semantic change for imperfective **yaqtulu* in Northwest Semitic, since there is no semantic change. Rather we need to explain how an imperfective could change to become a subordinate clause form. There are indeed attested cases of an imperfective form becoming restricted to subordinate clause contexts. Such a process has occurred in Modern Armenian and some colloquial dialects of Arabic. Bybee, Perkins and Pagliuca (1994:233) remark:

> In Armenian ... the development of a progressive into an imperfective in both the present and the past has left the older Present and Imperfect forms stranded in primarily subordinate contexts, yielding new subjunctive and conditional forms. A similar development is under way in some varieties of Arabic...

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of the Amarna tablets were misled by Akkadianisms and "the fact that the WS scribes confused the G *iparras* with the D stem" (Rainey:1975:419).

36 Cited from ZDMG 66:88.

37 Hamori evades the problem of explaining the disappearance of *yaqattal*, saying: "It is immaterial for our puposes why the doubling imperfective (if Proto-Semitic) dies out in West Semitic" (1973:322 n. 10).

> In Cairene Arabic the simple Imperfect ... is no longer used for any indicative present tense functions. The prefix *bi-* is used on the Imperfect verb form for present progressive, habitual, and generic statements. Now in main clauses the simple Imperfect ... is used for exhortations ('Let's go') or for statements of weak obligation ('he is to let them know'). In subordinate clauses, the use of the Imperfect is widespread: it is used in the complements to predicates meaning 'be able to', 'know how to', 'like to', 'let', 'continue to', and 'begin to'; it is used in purpose clauses following verbs of motion; it is used after many temporal conjunctions. (Mitchell 1956:83-85)[38]

According to this hypothesis, a similar process occurred in Akkadian and Ethiopic. The **yaqattal* imperfective represented an innovation. It is a common phenomenon that reduplication* symbolizes continuous or iterative* activity. Bybee, Perkins, and Pagliuca (1994:170) remark: "It seems very plausible that iterative is the original meaning of reduplicative constructions and that continuative might be an extension of iterative meaning. We further hypothesize that progressive meaning may derive from continuative meaning." As mentioned in section 2, progressive normally develops into imperfective. Diakonoff (1988:105) mentions that in Egyptian and Berber, gemination of the second consonant or other similar reduplication processes "are used for expressing a third aspect (alongside of Punctual and Cursive) – namely Habitative". Hence it would be a natural process for a new imperfective conjugation to arise from a reduplicated form.

This new conjugation might have originally been iterative or habitual in contrast to the broader imperfective meaning (what Diakonoff calls "Cursive") of **yaqtulu.* However as **yaqattal* extended its meaning to progressive, imperfective and future meanings, it eventually supplanted imperfective **yaqtulu* in main clauses, relegating it to subordinate clauses. Presumably, the old imperfective could survive in such contexts because the clear contextual clues in subordinate clauses (such as conjunctions) ensure that there is no confusion as to the meaning of the archaic form. Subsequently *yaqtulu* was reanalyzed as a subordinate clause form and lost its aspectual meaning. This caused the final *-u* to be reanalyzed as a marker of subordinate clauses, and enabled it to be applied by analogy to other verb forms, such as the Akkadian Present and Permansive*.[39]

Kuryłowicz's views are similar. He says:

> The old pres. type *i̯aqtulu* is preserved in Akk. (*iprusu*) in a secondary syntactical function. In Sem. the so-called "imperf." *i̯aqtulu* functioned primarily as a present-future, but could also be used to express *simultaneity* with a past action ... It is just to this secondary function that *iprusu* was restricted in Akk. after the introduction of the new present-future *iparras* etc. With the meaning simultaneity changing to *past action depending on another* (*past*) *action* the old "imperf." *i̯aqtulu* (*iprusu*) became a mood of subordination appearing in different kinds of subordinate clauses, in the first instance

38 Bybee, Perkins and Pagliuca (1994:372) give the following reference: Mitchell, T.F. (1956): *An Introduction to Egyptian Colloquial Arabic.* Oxford: Oxford University Press.

39 This is the opposite of G.R. Driver's view (1936:75-78) that the *-u* originated as a case ending on the Permansive in relative clauses, and was extended by analogy to *iqtul* and *iqattal.*

> in relative clauses. The restriction of Sem. *ɨaqtulu* to a secondary function, due to the generalization of a new form of the indicative, occurs also in Eth. (1972:60)

Ethiopic is similar to Akkadian in having the reduplicated form *yəqattəl* as an imperfective. However not every Ethiopic language has this form; it is restricted to languages of the North Ethiopic group, i.e. Ge'ez, Tigré, and Tigrinya. In the South Ethiopic group, including Amharic and various other languages, the imperfect form is not reduplicated, e.g. Amharic *yeqatl* (Perkins 1992:193). Leslau (1953) therefore argues that the Proto-Ethiopic imperfect was **yeqtl(u)* since this form can be easily derived from Proto-Semitic **yaqtulu* and would explain the presence of the unreduplicated imperfect form in South Ethiopic languages.

The development of *iqattal* in Akkadian and *yəqattəl* in some Ethiopic languages could be regarded as independent parallel developments, since it would be based on a widespread natural semantic process. A possible source of this conjugation would be the D stem*, which has a reduplicated middle consonant. In Semitic and Afrasian languages these stems "usually denote an action as either intensive, iterative, factitive, declarative or causative" (Diakonoff 1988:104). The *iqattal* conjugation in Akkadian and *yəqattəl* conjugation in Ethiopic could have developed from the iterative meaning of the D stem, and become differentiated from it as a result of phonological changes in the vowels.

It is easier to explain the relatively less widespread **yaqattal* imperfective as an innovation than the relatively more widespread **yaqtulu* form. This hypothesis also avoids the need to posit the presence of a **yaqattal* form in Proto-Northwest Semitic, seeing as there is no credible attested evidence of such a form in that language family.

*5.4 Earlier Origin of *yaqtulu*

If we accept that *yaqtulu* was already an imperfective at the Proto-Semitic stage, one can still speculate as to its origins at a still earlier stage. Speculate is the operative word, since there is little comparative evidence to support a reliable reconstruction. Diakonoff (1988:89) makes the valid point that because **yaqtulu* is a marked form in relation to **yaqtul,* it cannot have been the original form. The *-u* suffix may have initially derived from a nominative* case* ending[40] or from a locative case ending, as suggested by Diakonoff (1988:102). The *-u* locative case ending is attested in Akkadian (Moscati 1964:94). The form could have initially been a nominalization* of perfective *yaqtul* to give a participial form. Later this participial form could have expanded its meaning to become an imperfective and later yet added future meaning. Alternatively if it was originally locative, it would fit into the normal diachronic path of a locative expression evolving into a progressive, and subsequently an imperfective (see Table 2).

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[40] A suggestion made by Knudtzon (ZA 6:419 n. 1, cited in G.R. Driver 1936:75). Compare G.R. Driver's remark (1936:27) that *-u* "was originally a nominal ending proper to the permansive *qatil* and that it was subsequently applied ... to the other tenses when they were evolved". Driver, however (1936:75-77), thinks the case marking originated in the subordinate clause, as Diakonoff does.

6. The Development of **qatila*

In this section, I will discuss in detail the evidence regarding the development of **qatila*.

*6.1 The Priority of *qatila*

G.R. Driver (1936:26-28) considers that of the three vocalizations* of the suffix conjugation, **qatala, *qatila, *qatula,* the earliest was **qatila* with **qatala* as a secondary derivation. One reason for this is the occurrence of a significant number of verbs for which the proto-form is reconstructed as **qatila*, but which subsequently underwent a vowel change to become **qatala*.[41] This is interpreted as suggesting that **qatila* was the more original form. The fact that *qatil* is the predominant form in the Akkadian Permansive, which is sometimes regarded as the most conservative of the suffix conjugations, adds weight to the argument. Whether or not such arguments really show that **qatila* was prior to the other forms, they do suggest that **qatila* represents a logical starting point for a discussion of the development of the suffix conjugation.

*6.2 The Origin of *qatila*

There are several views regarding the origin of **qatila.*

*6.2.1 *qatila as a Universal Verb*

G.R. Driver suggests that *qatil* was "the simplest form of the verb from which all other forms have been demonstrably developed" (1936:26). Sometimes he describes it as denoting a state; other times he says it had "universal usage" (1936:28). This view is based on the mistaken conception that early stages of ancient languages would be primitive in grammar, having just one verb form. There is no evidence for this. One would rather suppose that when the current verb forms arose millennia ago they probably replaced previous forms of which no trace is now left.

*6.2.2 *qatila as a Stative*

A more reasonable view of **qatila* sees it as having been a Proto-Semitic stative verb. This is the hypothesis of Diakonoff. Evidence from most Semitic languages shows that many verbs which are reflexes of the proto-form **qatila* have stative meaning. These include the Akkadian Permansive, *qātēl* in Hebrew, and *qatila* in Arabic.

*6.2.3 *qatila as a Nominal Form*

Related to the view that **qatila* was stative is the widespread view that **qatila* originated from a nominal* form. Evidence for this can be found in the Akkadian Permansive, which can be applied to nouns, such as *zikarum* 'man' to form a predicate nominal form *zikarāku* meaning 'I am a man' (von Soden 1952:8).

41 G.R. Driver (1936:48-49) citing Joüon.

The phonological shape of the **qatVla* conjugations supports the hypothesis that they earlier (before the Proto-Semitic stage) had a nominal character. The final vowels in the third person forms can be identified as nominal case endings. Diakonoff (1988:96) suggests that the final *-a* is derived from a nominal ending for predicate state. The final *-at* of the third person feminine singular and the final *-ū* of the third person masculine plural reflect nominal endings (cf. Moscati 1964:84.87).

*6.2.4 *qatila as an Adjectival Noun*

According to R.M.W. Dixon (1977), many languages of the world do not have adjectives as one of their parts of speech. There are two strategies to accommodate words with adjectival meanings: either group them with the nouns as adjectival nouns or group them with the verbs as stative verbs. The nominal features noted above are evidence that at a stage before Proto-Semitic (perhaps at the stage of Proto-Afrasian) the proto-language* adopted the first strategy: **qatila* was an adjectival noun. The proto-form of a word such as Hebrew *kābēd* 'heavy' would have been an adjectival noun designating something or somebody in a heavy state, i.e. 'heavy one'. The subsequent diachronic development of **qatila* and **qatula* could be seen as a change from the noun strategy to the verb strategy. The adjectival noun gradually took on more verbal characteristics (such as inflection* for person, gender, and number) thus becoming a stative verb.

6.3 The Change from Noun to Verb

We can envision the change from noun to verb happening in the following way. Initially **qatila* functioned as a predicate nominal in an equative* clause. As a noun, it was marked with nominal case endings. The word order was predicate nominal first, followed by the subject, as would be expected in a verb-initial language. We can posit the following changes:[42]

TABLE 11
DERIVATION OF **kabida*

Original form	**Shortened form**	**Meaning**
**kabida ʾanaku*	**kabidku*	I am/was heavy
**kabida ʾanta*	**kabidta*	You (m. sg.) are/were heavy
**kabidat ʾanti*	**kabidti*	You (f. sg.) are/were heavy
**kabida huwa*	**kabida*	He is/was heavy
**kabidat sĭya*	**kabidat*	She is/was heavy
**kabidū naḥnu*	**kabidna*	We are/were heavy
**kabidū ʾantumu*	**kabidtumu*	You (m. pl.) are/were heavy
**kabidā ʾantina*	**kabidtina*	You (f. pl.) are/were heavy
**kabidū humu*	**kabidū*	They (m.) are/were heavy
**kabidā hina*	**kabidā*	They (f.) are/were heavy

42 Reconstructions of Proto-Semitic pronouns and cliticized forms follow Moscati (1964:103-106, 138-140). I omit dual forms.

As time went on there was a phonological reduction, and in the first and second persons the subject became cliticized* to the noun. In the third person, however, the subject pronoun was dropped. This would be in accord with a tendency that third person verb forms are more likely to be unmarked than first or second person forms.[43]

The formation of a form combining subject and predicate is the signal that this conjugation has shifted from being a noun to become a verb. The question arises: what tense and aspect did this new verbal form have? Initially it would have inherited the tense and aspectual features of the verbless equative clause it was derived from. Such clauses are unmarked for tense – they can refer to past, present, or future. With regard to aspect, a verbless equative clause has imperfective aspect because it portrays an unchanging state. Hence we can conclude that when **qatila* emerged as a stative verb it designated imperfective aspect.

It is important to distinguish between the situation type* of the verb and its aspect. Situation type refers to a four-way classification of verbs first posited by Aristotle, and elaborated by Zeno Vendler (1967:97-121):

States: Situations unchanged through time (e.g. know, seem).

Activities*: Processes going on in time without an intrinsic endpoint (e.g. walk, study).

Achievements*: Processes which occur at a single moment (e.g. find, begin).

Accomplishments*: Ongoing processes with an intrinsic endpoint (e.g. destroy, make something).

Many discussions of the tense and aspect of **qatila* content themselves to say that it is stative, as if that explained everything. But this can be misleading because the term stative can refer to the situation type of the verb on the one hand, and to a subtype of imperfective aspect on the other. A stative verb can still have a variety of aspects. Imperfective aspect focuses on an unchanging state. In relation to a stative verb, imperfective aspect is often called stative. To avoid confusion, I will call this imperfective continuative aspect. When a stative verb occurs with other aspects, it is no longer strictly stative, because some change is involved. With perfective aspect, a stative verb would designate a change of state. With perfect aspect, it would designate an event bringing about a change of state as well as the continuing new state. With resultative aspect, the change of state would be in the background and the focus would be on the new state which resulted. Although English does not strictly distinguish between these aspects, the following examples give an approximation of the differences between them:

Imperfective continuative: *It is black.*

Perfective: *It became black.*

Perfect: *It has been blackened.*

Resultative: *It is blackened.*

[43] Comrie (1989:191-192) cites a number of languages in which verb agreement is oriented to first and second person, but not third person.

Note that with perfect and resultative aspect, English requires the use of the fientive verb *blacken*. In some languages, the same form might be used with the different aspects, but the meaning would change.

If **qatila* initially designated imperfective continuative aspect, did further diachronic development lead to the emergence of other aspectual meanings? The normal diachronic path would be to develop from imperfective continuative to resultative to perfect to perfective.

A suffix conjugation with resultative meaning is exemplified by the Akkadian Permansive. M.B. Rowton (1962:234) defines permansive as "a tense which is used to speak of state as the outcome of past action... it contains the element of result." Hence it is another name for a resultative. Rowton (1962:302) remarks that "the tendency the permansive has in verbs of action to be used as a perfect is observable in Akkadian". He explains:

> Because of its capacity to relate past perfect action to a later situation, because it speaks of action in terms of its effect, the permansive has a marked tendency to function as a perfect. This tendency arises when the context focuses attention on the action rather than its effect. (1962:300)

But there is a problem here in relation to stative verbs. With stative verbs, there is no action to focus on. According to Carey (1994:24), stative verbs are excluded from resultative constructions. She explains: "Stative verbs do not involve an inherent goal or result and therefore can not appear in constructions that require that the object bear a final state or result." This is because they do not involve any event which results in a state. In fact, the normal diachronic path mentioned in section 2 applies to fientive verbs, not stative verbs.

This suggests that stative verbs are not the likely locus of the semantic shift from continuative imperfective to resultative to perfect. Such a shift must have occurred first in verbs which are able to simultaneously portray an event and a state, namely fientive verbs. Hence we now turn our attention to fientive **qatila* verbs.

*6.4 Fientive *qatila*

Thus far we have restricted our discussion to stative **qatila* verbs. But not all **qatila* verbs are statives. In Akkadian, many *qatil* Permansives are non-stative, that is, fientive. They designate an event, not a state. For example: *ṣabit* 'he holds', *rakib* 'he is mounted, rides', *naši* 'he bears, carries', *ṣamid* 'he has bound', *padi* 'he has arrested', *kali* 'he has detained' (Rowton 1962:259,292). In terms of situation type, such verbs do not differ from fientive **qatala* verbs. In Arabic also, there are many *qatila* forms which are fientive rather than stative. For example: *laqima* 'swallowed', *šariba* 'drank', *zarida* 'devoured', *lafiẓa* 'vomited', *qadima* 'arrived', *laḥiqa* 'closely followed', *laqifa* 'caught' (G.R. Driver 1936:50-51). Hence the broad correlation between the **qatila* conjugation and stative verbs is one-way rather than two-way: if we take any stative verb, odds are that it will be **qatila*, but if we take any **qatila* verb, it is as likely to be fientive as stative.

Since the semantics of the verb are more important in relation to diachronic development than the phonological form, it is best if we discuss fientive **qatila* and fientive **qatala* together, as we will do in the following section.

7. The Development of **qatala and wəqātal*

In this section, I will discuss in detail the evidence regarding the development of fientive **qatala* and *wəqātal*. It should be understood that fientive **qatila* verbs are included in the discussion, even if they are not explicitly mentioned.

*7.1 The Origin of *qatala*

There are several views regarding the origin of **qatala*. Most of these parallel the views of the origin of **qatila* set forth in the previous section.

*7.1.1 *qatala as an Innovative Activity Verb*

G.R. Driver suggested that *qatal* developed from *qatil* "when the need for a distinct form to describe activity as distinct from state came to be felt." (1936:45). He felt the change in vowel was based on semantic considerations: "Consequently an active *qatal* was developed out of *qatil* by a change of vowel based on the accordance of the nature of the vowel with the meaning required to be expressed" (1936:82). This view is based on the mistaken notion that ancient languages were more primitive and on a mentalistic view of the mechanisms of semantic change. G.R. Driver's view has been refuted by McFall (1982:141-151).
Hughes expresses a similar idea in more appropriate language. He says:

> The situation in Akkadian suggests that in the Proto-Semitic speech the preformative verb *yaqtul* denoted action and the afformative verb *qatil* signified state, ... But there came a time when the afformative verb *qatil (qatal)* gathered active meaning, resulting in an obscuration of the original distinction between the tenses. (1970:12)

Presumably this means that **qatala* did not appear until **qatila* had acquired active (i.e. fientive) meaning. In other words, it was an innovation. Does this mean that **qatala* did not exist earlier? If it was derived from **qatila,* how is the vowel change to be explained? Although Driver's explanation is unacceptable, at least he attempted an explanation. The problem is that most scholars who hold this view do not make explicit how the suffix conjugation became extended to fientive verbs. If in Proto-Semitic, **qatVla* was strictly nominal and stative, then presumably the form did not exist at all with fientive verbs, particularly transitive* verbs, which are the most eventive and least stative. One might suppose that only after the conjugation underwent semantic development and acquired perfect meaning did the way open for fientive roots to appear in this conjugation. However the phonological patterns of the **qatVla* conjugation argue against this. If transitive forms appeared only late, it would be more likely that they would have copied the phonological shape of the stative forms and betray few irregularities. Unless one can give a reasonable explanation as to why an innovative form derived from **qatila* should change the

vowel and then become the most common vocalization of the suffix conjugation in Northwest Semitic, it is more reasonable to suggest that the **qatala* form was already present at the earlier stage. In which case the innovation would be giving a new meaning to an already existing form. Semantic change is more flexible and dynamic than phonological change. New phonological forms do not normally spring into existence without being the result of a natural phonological process.

*7.1.2 *qatala as a Resultative Alias Stative*

Many scholars consider that the semantics of the Proto-Semitic **qatala* and **qatila* conjugations corresponded fairly closely with the semantics of the Akkadian Permansive. This is the hypothesis of Diakonoff. He says of the **qatala* form:

> Not only in Akkadian, but also in other Semitic languages of the Ancient stage this form was rare and, as it seems, was originally used for predicates of state; in other words, it was quite similar not only in form, but also in semantics to Akkadian and the Old Egyptian forms of quality, and of state emerged as a result of action. (1988:94)

When he speaks of "state emerged as a result of action" he is talking about what I have termed resultative. The implication is that the **qatala* conjugation existed in Proto-Semitic as a resultative aspect of fientive verbs.

There is terminological confusion here, since scholars use the term "stative" to describe at least three things: (1) a verb denoting a state situation type, whatever the aspect (e.g. *kābēd* 'be heavy'); (2) a verb denoting a state situation type which is in continuative imperfective aspect, denoting a situation which continues without change; (3) a verb of a non-stative situation type (i.e. a fientive verb) with resultative aspect.[44] So if scholars say that the **qatala* of fientive (or transitive or active) verbs was originally stative, it is best if we interpret that as meaning resultative.

*7.1.3 *qatala as a Verbal Noun*

Related to the view that **qatala* was "stative" (i.e. resultative) is the widespread view that **qatala* originated from a nominal form. Whereas for stative verbs, we can posit the nominal equivalent as being an adjectival noun, what sort of nominal form would a transitive fientive verb derive from?

In this regard, Bauer has a plausible explanation of the origin of **qatala*. He suggests (1910:17) that the agentive* noun **qatala* became a present participle. That is, the construction "a killer – you" was gradually thought to be a verb, taking on the meaning "you are killing".

Another way of expressing this is to describe **qatala* as having been a verbal noun: a form with some noun features and some verb features. There are two main types of verbal noun: the agentive noun, designating the agent* who performs an activity (i.e. 'killer'), and the noun of the activity, which could also be called a gerund* (i.e. 'a killing'). A problem with supposing that **qatala* was an agentive noun is that there would have been two forms with the same meaning, since the participial **qātilu*

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[44] The potential for confusion is illustrated by the following remark in Ungnad (1992:70): "The 'stative' (not stative tense!) verbs usually have *i* as a root vowel."

form was also presumably an agentive noun. This might suggest that **qatala* could have designated the activity, though in that case the question arises as to how this gerund form differed semantically from the infinitive, which was established as a separate form in Proto-Semitic.
Which of these hypotheses is most likely? I have indicated my skepticism of the possibility that **qatala* was a late innovation as a fientive verb. If we suppose that it was already present parallel to **qatila*, did it originate as a resultative or as a verbal noun? One might maintain that both are true: initially it was a verbal noun which developed into a resultative. In order to evaluate the different possibilities we need to address the vexed question of the relative priority of perfective or imperfective meaning in the suffix conjugations.

7.2 The Priority of Perfective or Imperfective Meaning

In Hebrew the two suffix conjugations have contrasting meanings: perfect or perfective *qātal* versus imperfective or future *wəqātal.* The question is, which meaning came first diachronically?

7.2.1 The View that Perfective Meaning was Prior

The majority view probably is that past or perfect (=anterior) or perfective *qātal* arose first as a semantic development from stative meaning, and the imperfective or future *wəqātal* was a subsequent development restricted to Hebrew.
Bauer (1910:37) sees the development of a past participle meaning of *qatal* as arising from a difference in stress. Thus *qa'talta* came to be distinguished from *qatal'ta* with the former having past meaning and the latter retaining present meaning. The mechanism of semantic change is not explained. Against this view, E.J. Revell (1984) has argued convincingly that the stress distinction in the suffix conjugation was very late.
Diakonoff (1988:94-95) explains the development of perfective meaning in **qatala* thus:

> The exchanging of the old Perfective (with the prefixed-conjugation) for the form *qatal(a)* ... can, in all probability, be explained by the fact that this form, originally expressing a state as the result of an accomplished action, was inevitably perfective by its nature. Its introduction instead of the Old Perfective allowed to distinguish the perfective and the imperfective aspects not only in the verb of action (where they already did exist as punctual and cursive), but now also in the verbs of state.

The fact that *qatala* and *qatila* are both attested in Eblaite with perfect meaning suggests that the development of perfect meaning was relatively early. Hans-Peter Müller (1984:157) gives examples such as the following: 56 UD.KÙ *lú ma-ḫi-la é* SA.ZA$_X^{ki}$ '56 (items of) silver which the house ... has received', *a-kà-al-ma-lik* 'Malik has devoured', *ba-na-a-ḫu* 'the (divine) brother has made'. Although Müller labels the meaning "präterital" as well as "perfektische", his translations indicate perfect meaning.
Whereas it is not difficult to explain the development of perfect or perfective meaning from stative meaning, the more intellectually challenging task facing the

proponents of the priority of perfective meaning is to explain how imperfective *wəqātal* could have arisen subsequently. Bauer (1910:28) regards *wəqātal* as the most difficult problem in the whole of Hebrew syntax.[45]

S.R. Driver suggests (1892:117), following G.H.A. v. Ewald, that the *wəqātal* construction "was originally evoked by the opposite idiom of the imperfect with *waw* consecutive." That is, it developed by analogy. This view is echoed by G. Bergsträsser (1918:2.14), F.R. Blake (1944), R. Hetzron (1969), T.L. Fenton (1973), Randall Buth (1992:101), and Angel Sáenz-Badillos (1993:69). Despite the weight of scholarly opinion behind it, this explanation is not very plausible for reasons which will be spelled out below.

Mark Smith (1991:8) proposes a two-stage process. The first stage involves the use of **qatala* forms in conditional* sentences. He suggests that it is a "common Semitic feature of syntax ... that the protasis is regularly governed by the past tense form standard to a given Semitic language and that the apodosis may take the past tense form of a language as well." He cites the use of **qatala* in both protasis* and apodosis* in the Amarna letters, Arabic, Ethiopic, and Biblical Hebrew. The second stage was:

> That the future uses of **qātal* in Biblical Hebrew conditional sentences were extended to **qātal* in independent clauses in the form of the 'converted perfect', [i.e. *wəqātal*] perhaps following the development of, and on analogy with, the 'converted imperfect'. [i.e. *wayyiqtōl*] (1991:8)

There are two problems with Smith's explanation. First, it is unclear what the semantic motivation would be for using a past tense form in a conditional sentence, especially in the apodosis. The second problem is with the supposed analogical development of *wəqātal*. These problems will be discussed below.

*7.2.2 Problems in the Prior Development of Perfect *qatala*

At first sight, the development of **qatala* from stative to perfect to perfective seems to match the path from resultative to perfect to perfective. Resultative designates the final state of a patient* as the result of an event. Hence it is a type of stative. However the initial construction in this diachronic path is different from what was found in Proto-Semitic. A typical initial construction, as exemplified in English and the Romance languages, is a verb of possession 'have' plus a passive past participle of a transitive verb. It designates the final state of a patient as the result of an event, which is regarded as being possessed by the subject of the clause. For example, *I have the book written.* This is a resultative construction. For intransitive verbs, the typical initial construction is a copula plus past participle. For example, *He is gone.* Semitic languages could not have this type of initial construction since they did not have a transitive verb of possession like *have*, nor did they usually have a copula.[46] For the intransitive verbs, the Semitic functional equivalent would be a verbless

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45 "Wir wenden uns daher sogleich zur schwierigsten Frage ... der hebräischen Syntax überhaupt, zur Frage des Perfectum consecutivum."

46 Goldenberg (1992) discusses this problem in relation to the development of a perfect from a participial form in Neo-Aramaic.

nominal clause, but there would not be a functional equivalent of the *have* + past participle constructions. And this leads to a big question mark as to how statives could have evolved into perfects for Semitic transitive verbs.
In the process attested for Romance and Germanic languages, the presence of the 'have' verb enables the agent to function as subject while the patient is object. When the 'have' becomes lexically bleached of its possessive meaning, the focus of the meaning of the constructions shifts from the final state to the event caused by the agent which resulted in the state. This means the construction has shifted from resultative meaning to perfect meaning.
In Proto-Semitic however, if **qatala* for transitive verbs designated a passive participle, then **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". On the other hand, we can adopt Bauer's suggestion that for transitive verbs the Proto-Semitic **qatala* had an active rather than passive meaning, i.e. "killing" or "killer". But in that case, it would not designate the final state of a patient, but rather the progressive or habitual state of an agent. According to the attested diachronic paths set out in section 2, such a form would be expected to evolve into an imperfective rather than a perfect. The question to be investigated is whether there is any plausible mechanism attested which would explain how a progressive could evolve into a perfect.

7.2.3 The View that Imperfective Meaning was Prior

Bauer and Leander suggest that the present meaning of *qātal* was prior to the past meaning. They think that imperfective *wəqātal* was not an innovation in Hebrew, which is shown by its syntactic use in accordance with an older meaning of the suffix conjugation, which is retained in certain contexts, a phenomenon which would not be explicable if it was regarded as an internal Hebrew development (1922:275[§36s]).[47]
Rabin (1984:395) says:

> If we connect the Ugaritic and Hebrew suffix perfect with the Akkadian Permansive, it is likely that the tense was at first without time and aspect opposition in North-West Semitic, too, and that the suffix imperfect is a survival of the earlier use in the same way as the suffix perfect.

For this reason Rabin thinks it is possible the development of the suffix conjugation as imperfect preceded its development as perfect.

*7.3 Evidence for the Priority of Imperfective *qatala*

If the imperfective meaning of **qatala* was prior to the perfective meaning, one would expect to find relics of such a meaning in various Semitic languages. In the following sections I will set forth evidence that shows that this is indeed the case.

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47 "Erstens weist nämlich seine syntaktische Verwendung auf eine ältere, in diesem Gefüge erhaltene Bedeutungsstufe des Nominals hin, die nicht erklärlich wird, wenn man ihn als eine interne hebr. Bildung auffaßt."

7.3.1 Evidence from Hebrew

The strongest evidence for imperfective **qatala* is the Hebrew imperfective *wəqātal* conjugation. Its meaning includes past habitual (a subcategory of imperfective), as well as future. There are also future uses of *qātal,* which are discussed in section 9. These include the use of *qātal* to indicate immediate future and in the apodosis of conditional clauses. The widespread use of *qātal* as a present continuative imperfective of stative verbs also fits in with imperfective meaning.

I want to argue that it is more likely that these uses of *wəqātal* and *qātal* preserve an earlier meaning of **qatala,* rather than being a later development. What evidence can be put forward to support this argument?

The analogical situation with regard to *wayyiqtōl* and preterite *yiqtōl* is suggestive. Assuming that both these forms are reflexes of Proto-Semitic preterite **yaqtul,* the archaic meaning was better preserved in the restricted context of clause-initial coordinated verb, whereas in other contexts the preterite *yiqtōl* was crowded out by the homophonous imperfective *yiqtōl,* a reflex of Proto-Semitic imperfective **yaqtulu.* It is reasonable to think that a similar mechanism would apply to *wəqātal* and *qātal,* with the older meaning being better preserved in clause-initial position.

A second argument is negative, that is, throwing doubt on the possibility of *wəqātal* developing as a later innovation in analogy to *wayyiqtōl.* One has to think carefully about how analogical reasoning functions in causing semantic change. Basically it is a question of pattern extension. There are two main models: reanalysis of patterns during language acquisition causing the creation of a new form, and metaphorical extension of existing patterns to accommodate novel meanings.

The first model can be illustrated from the person suffixes of the **qatala* conjugation in West Semitic and Ethiopic. In Proto-Semitic the first and second person suffixes are reconstructed as being *-ku* (1 sg.), *-ta* (2 m. sg.), and *-ti* (2 f. sg.) (Moscati 1964:139). In West Semitic languages such as Hebrew and Arabic, these suffixes all begin with *t* (e.g. Arabic *-tu, -ta, -ti*). In Ethiopic they all begin with *k* (*-kū, -ka, -kī*). In each case we can ascribe the cause to pattern generalization by children learning the language. In West Semitic, children learned the second person forms with *t* and reanalyzed the *t* as a non-third person marker, rather than a second person marker. Hence they created first person forms such as *-tu* in Arabic or *-tī* in Hebrew. In Ethiopic, however the process went the other way: the reanalyzed non-third person pattern was based on the first-person ending *-kū,* and extended to second person *-ka* and *-kī.*

The second model of analogical extension is the metaphorical extension of meaning of an existing form. It often involves a novel meaning which is inadequately expressed by the existing inventory of lexical forms in a language. To express that meaning, an existing form is chosen which shares some semantic features similar to the novel meaning. This is the sort of semantic change illustrated by the common diachronic paths discussed in section 2.

Neither of these models can explain the creation of *wəqātal* by analogy with *wayyiqtōl.* The first model does not apply since *wəqātal* does not represent a new form, but rather an existing form with a new meaning. The second model does not apply either. As G.R. Driver (1936:20) remarks:

> The explanation of the Hebrew construction of consecutive *wāw* with the perfect as brought into being as a kind of counterpoise to that of consecutive *wāw* with the imperfect, implies an artificiality of too conscious a kind to be really credible ...

According to the analogical model, why would the existing *wəqātal* with perfect or perfective meaning be chosen to express a novel imperfective or future meaning? The necessary condition of sharing semantic features would not be fulfilled. A linguist might say, "If the meaning were extended that way, it would make an interesting symmetrical system", but this would be the conscious artificiality Driver mentions. That is not the way natural analogical extension works.

7.3.2 Evidence from Amarna Canaanite

In the Amarna tablets, *qatala* forms can be used with present and future time reference. These uses are set forth by Rainey (1996, II:352-366). Virtually all the attested forms with present time reference are statives or passives, with the exception of one active verb, *u šapru* 'they write' (EA 82:12, cited in Rainey 1996, II:352). Those *qatala* forms with future time reference occur in protases and apodoses of conditional sentences, purpose clauses, and in main clauses with optative function (wishes). Besides statives and passives, there are significant numbers of intransitive and transitive verbs.

7.3.3 Evidence from Ugaritic

In Ugaritic, **qatala* forms may be used with a jussive function (Müller 1983:39; 1988:186). The following examples expressing wishes are from Segert (1984:90):

lyrt 1.5:I:6 = **88.54** "may you descend"

ḫwt.aht 1.10:II:20 = **88.56** "may you live, my sister"

7.3.4 Evidence from Other Northwest Semitic Languages

Garr (1985:180) evaluates the occurrence of what he calls the "consecutive perfect" (*wqtl* with nonpast/imperfective meaning) in Northwest Semitic languages. For Byblian, Ammonite, Deir Alla, Moabite and Edomite there is no evidence, due to the small quantity of extant inscriptions from these languages. In Phoenician, Aramaic, and and Yaʾudic (which Garr calls Samalian), for which the quantity of extant texts is greater, the "consecutive perfect" is not attested. For Phoenician and Aramaic "a precative verb was regularly followed by an imperfect". Garr concludes:

> According to the available evidence, the consecutive perfect appeared only in Hebrew among the first-millennium Northwest Semitic dialects. It is not attested in standard Phoenician, Old Aramaic, and probably Samalian. Since, however, the origin of the verb form is unknown, it is unclear whether its appearance in Hebrew is a survival or innovation.

Note that this negative conclusion relates only to coordinated **waqatal* forms, not to possible future or imperfective uses of **qatala*.

7.3.5 Evidence from Phoenician

In contrast to the above conclusion, Krahmalkov cites data from Punic Phoenician inscriptions showing that:

> The qatal-future occurs frequently in a syntactic construction which has a precise analogue in Hebrew, indicating that this 'tense' was, in fact, a feature common to both languages. I refer specifically to sentences with anticipatory clause followed by resumptive main clause in which the *qatal* appears in restricted initial position in the resumptive clause. (1986:5)

The following is one of his examples (1986:8):

> CIS i 4945.4-6: W'Š YRGZ T-MTNT Z *WQBT* TNT PN B'L
> 'As for anyone who disturbs this gift, Thinnith-Phanebal *shall curse* him!'

In Phoenician, **qatala* forms may also be used with a jussive function (Müller 1983:39; 1988:186).

7.3.6 Evidence from Akkadian

According to Rowton (1962), one of the meanings of the Permansive in Akkadian is what he calls "the permansive of persistency". With this usage "the speaker views the action as performed in a ceaseless, continuous manner." (1962:249). In the terminology used in this paper, this would be called imperfective. He gives one hundred examples of this usage (1962:250-260), one of which is reproduced below:

> *bēlet rēši utninni ana šisīt ḫa-an-ṭa-at*
> 'the lady of joy and prayer [ever takes care to] hasten to the cry (of distress)' (Craig ABRT 2 17:23 [SB rel.] cited by Rowton 1962:253)

> At the conclusion of his article, Rowton raises the following question:

> A difficult question to answer is what was the original function of active *paris,* when it began to be used as a tense of the verb? The real problem is the use of *paris* to speak of persistent action (Nos. **101-200**), the other uses of *paris* present little difficulty ... Perhaps at a remote period in the history of Semitic the permansive was used to denote a number of very different views of action, all in varying degrees lacking in the element of change. The "gnomic" perfect in Hebrew may represent one such survival, action that always has been performed, and is presumed so to continue being performed. (1962:298)

Hence it is evident that the Akkadian Permansive has a similar semantic complexity to the suffix conjugation in Hebrew, and Rowton suggests a similar solution to the one put forward in the present paper: that the proto-form of the Akkadian Permansive, as well as Hebrew *qātal* and *wəqātal,* was a form with a variety of imperfective meanings.

7.3.7 Evidence from Arabic

In Arabic, the so-called Perfect *qatala* form is used in several contexts which seem unusual for a form with past perfective meaning. These include its use in conditional sentences, comparisons, pious wishes, and with future time reference.
Either the Perfect or Jussive may be used in both the protasis and apodosis of conditional sentences. This use of the Perfect is discussed by M.M. Bravmann (1977:563-571). He refers to this as "non-temporal use" of the Perfect. He claims that this use "developed out of an original use of this specific tense in its primary 'temporal' function as 'preterite'". He illustrates the supposed semantic mechanism causing the change with the following sentence:

> *lā tuḫādiᶜ-i llāha – iḏāḫādaᶜta llāha ḫadaᶜaka*
> 'Don't attempt to deceive God! – When you attempted [in the past] to deceive God, he deceived you [actually]'

The semantic development is supposed to have occurred through the simultaneous emergence in the mind of the speaker of an implication of the above meaning, namely: "If you attempt to deceive God, he will deceive you." Eventually the original meaning faded out, and the "non-temporal" meaning replaced it.
This explanation is not convincing. The problem is, how frequently would one refer to past concrete examples when attempting to convey conditional meaning? Especially since there was an alternate verb form available for normal conditional meaning, namely the Jussive. Conditional sentences are most frequently used for hypothetical situations, not for situations which have already occurred in the past, as Bravmann's example requires. It was noted in section 2 that frequency of usage is an important factor in determining which lexical forms or propositions get grammaticalized. If the above semantic mechanism was a natural path of diachronic change, one would expect to find perfective past verb forms in the apodosis of conditional clauses in other languages outside the Semitic language family. This is not the case. According to the research of Bybee, Perkins and Pagliuca (1994:207), out of the seventy-four languages in their database, only one is cited which has any sort of past verb form in the apodosis (Basque uses a past tense form expressing probability for hypothetical apodoses). In contrast, "apodoses are prime environments for future [grammatical morphemes]. Apodoses are main clauses where predictions are made that are contingent on the conditions stated in the protasis" (Bybee, Perkins and Pagliuca 1994:274). According to Givón (1990:829) the apodosis of conditionals is typically "marked by either future, or modal or some other irrealis operator". The Jussive is an example of these. It is likely that the Perfect could be used in parallel to the Jussive in conditional sentences because at an earlier stage of the language its meaning corresponded to one of the categories mentioned by Givón (1990).
The Arabic Perfect can be used for wishes, especially conventional pious wishes, such as *raḥimahu-ʾllâhu* 'may God have mercy on him!' It can also be used with the negative *lâ* to express negative certainty about the future, for example, *lâ ʾaqamtu* 'I (certainly) shall not remain' (G.R. Driver 1936:88).

S.R. Driver (1892:244), following the lead of Ewald,[48] cites verses in the Qur'an in which the Perfect is used with future meaning. For example:

> *yaqlumu qawmahu yawma-lqiyāmati fa'awradahumu-nnāra*
> 'he will go before his people on the day of judgment, and lead them into the fire' (11:98)[49]

In this sentence, the second verb *'awradahumu* 'lead them' is Perfect.
All these cases can be explained by supposing that the imperfective and future uses of the *qatala* were preserved in certain restricted contexts, whereas in the rest of the language the past meaning took over completely. Why would these particular contexts be the ones in which the imperfective and future **qatala* could more easily be preserved?
In conditional sentences, the conditional conjunctions provide sufficient information about the time reference, so the normal past-future distinctions are not relevant. The same applies to the conjunctions used in comparisons. Conventional pious wishes are likely to stay in frozen form even when the rest of the language changes. The Qur'an may preserve archaic high speech styles.

7.3.8 Evidence from Ethiopic

A number of uses of the Ethiopic Perfect (*qatala*) parallel those in Hebrew which can be regarded as deriving from an earlier imperfective meaning of **qatala.* The Ethiopic Perfect can be used "to express Future actions ... in conditional clauses and relative clauses of equivalent import" (Dillman 1907:168-169). Ethiopic has a parallel usage to the so-called prophetic perfect of Hebrew (Dillman 1907:169). There is an infrequent use of the Perfect to express "general truths, practices, and customs" (Dillman 1907:168), that is, habitual meaning. Verbs of mental state, such as "know", "see", and "love" are mostly expressed in the Perfect when the reference is to present time (Dillman 1907:168).

7.4 A Suggested Solution

From all this evidence, the most widespread use of **qatala* with future meaning is in conditional sentences, both protasis and apodosis. This is found in Amarna Canaanite, Hebrew, Arabic, and Ethiopic. This suggests the likelihood that this represents an early usage, perhaps Proto-Semitic. The question arises as to whether the use of the future **qatala* in conditional sentences and other similar environments is the remnant of an earlier wider use of future **qatala* or whether it represents the first limited encroachment of **qatala* into the future field of meaning, which was later expanded in Hebrew with the development of future **waqatala.*
While the suggestion that for transitive verbs, Proto-Semitic **qatVla* might have been progressive presents a problem with regard to its evolution into a perfect form, it provides a possible solution to the problem of how *wəqātal* came to have imperfective meaning. If we suppose that **qatala* was initially a verbal noun, this

[48] He cites *Gramm. Arab*, ii. p. 347.
[49] Translation from Ali (1946:541).

might fit in with one of the common sources of progressive meaning, namely locative plus verbal noun.[50] A change from progressive to imperfective is one of Bybee and Dahl's attested diachronic paths (see Table 2). This would explain the past habitual use of *wəqātal*, since past habitual is a subtype of imperfective.[51] The second stage of this diachronic path is a change from imperfective to future. So both of the common meanings of *wəqātal* are natural developments from progressive meaning.

If one accepts this hypothesis, one is still left with the problem of the origin of the perfect *qātal*. The question to be investigated in this case is, is there any plausible mechanism attested which would explain how an imperfective could evolve into a perfect? This is based on the supposition that imperfective *wəqātal* was prior to perfect *qātal*. On the other hand, if one supposes that perfect *qātal* was prior to imperfective then the question to be investigated would be, is there any plausible mechanism attested which would explain how a perfect could evolve into an imperfective?

Another possible scenario is that progressive **qatala* evolved into an imperfective on the one hand and evolved into a perfect on the other, each development being a semantic shift in different directions from the same source. Evidence to support such a possibility is found in Japanese and various Dravidian* languages.

7.4.1 Evidence from Japanese

In Japanese, aspect is indicated by auxiliary verbs suffixed to the gerund or infinitive conjugational form of the main verb.[52] One such aspect marker is *-iru*, which is suffixed to the gerund form, which itself is marked by the suffix *-te*. The interesting thing about this aspect marker is that it has quite distinct meanings depending on the situation type (state*, activity*, achievement*, or accomplishment*) and transitivity of the verb it is affixed to.

In English, state and achievement verbs do not normally take the progressive *-ing* form, in contrast to activities and accomplishments. In Japanese, stative verbs do not take *te-iru*. When activity verbs take *te-iru*, the meaning is progressive. For example:

Kodomotati ga kooen de asonde-iru[53]
children NOM park LOC play-PROG
'The children are playing in the park.' (Jacobsen 1992:163)

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50 It is possible to give the supposed original equative clause **qatala ʾanta* a locative interpretation 'you [are at] killing', even though the locative relation is not explicitly marked.

51 This contrasts with the explanation of Joosten (1992:7-8) that the habitual or iterative function of *wəqātal* derives from its modal function. By modal he means non-reality, including prediction (1992:3 n. 11), that is, future. But according to Bybee, Perkins and Pagliuca (1994), future tenses tend to derive from imperfective, rather than vice versa (see section 2.3.3).

52 The information on Japanese in this section is summarized from Jacobsen (1992:157-194). Thanks to Ronald Langacker for directing my attention to this Japanese verb form.

53 The form *asonde* represents a phonological assimilation of *asobu* 'play' plus the suffix *-te*.

When achievement verbs take *te-iru*, the meaning is perfect (=anterior). For example:

Denki ga tuite-iru
lights NOM turn_on-PERF
'The lights are turned on.' (Jacobsen 1992:163)

Accomplishment verbs with *te-iru* can have either perfect or progressive meaning. Adverbs and other particles can sway the balance in favor of one interpretation or the other.

The interpretation of *te-iru* also depends on transitivity. In Japanese, some verbs come in related pairs, one transitive and one intransitive. In such cases, the transitive verb with *te-iru* tends to be interpreted as having progressive meaning, whereas the intransitive cognate verbs tend to have perfect meaning. The following examples contrast the transitive verb *kiru* 'cut' with the intransitive verb *kireru* 'be cut.'

Densen o kitte-iru.
power_line ACC cut-PROG
'He is cutting the power line.' (Jacobsen 1992:176)

Densen ga kirete-iru.
power_line NOM be_cut-PERF
'The power line has been cut.' (Jacobsen 1992:176)

7.4.2 Evidence from Dravidian

A number of Dravidian languages spoken in South India have a so-called Present Perfect verb form which can have both perfect and progressive meanings. Such forms are found in the Pengo, Parji, Tamil, Kūi, and K?ux languages (Steever 1984:633-639). Steever explains the meanings of these forms as follows:

> Whether a particular instance of the present perfect tense forms in Pengo or Parji is interpreted as progressive or perfect in meaning seems to depend less on the inherent semantics of the auxiliary and more on the inherent 'aspectual class' of the main verb with which it combines. (1984:633)

The term "aspectual class" is a reference to the situation type categories of Vendler. In these Dravidian languages, activity predicates such as *run,* "tend to give rise to a progressive meaning in such a construction", whereas an achievement predicate, such as *break (the mirror),* "tends to have a perfect tense meaning in the very same context" (Steever 1984:634).

*7.4.3 A Semantic Split in *qatala*

What is the relevance of this Japanese and Dravidian data to Hebrew? I suggest that at a certain stage of Proto-Semitic, the **qatala* conjugation had similar semantics to the *te-iru* aspect marker in Japanese or the Present Perfect tense in some Dravidian languages. With activity verbs, most of which are intransitive, it had progressive meaning. With achievement verbs and accomplishment verbs, most of which are

transitive, it tended to have resultative meaning, which later developed into perfect meaning. The details of the split between the two meanings were doubtless somewhat different in Proto-Semitic as compared to Japanese or Dravidian, but the basic semantic dynamics could well have been the same. If the semantic dynamics parallel the English shift from resultative to perfect (see above section 2.3.1), it may be that communication and perception verbs provided the initial environment for the shift from resultative to perfect. Such a polysemy in the **qatala* conjugation would provide a natural plausible explanation of why and how this conjugation went on to develop both perfective and imperfective meanings. Perfective meaning is a natural development of perfect meaning, whereas imperfective meaning is a natural development of progressive meaning.

*7.5 Competition between *yaqtulu and *qatala*

There are some problems that need to be addressed if we suggest that imperfective **qatala* arose after **yaqtulu* was already established as an imperfective. How would two imperfective conjugations share the same field of meaning? In order to formulate a plausible hypothesis of how the two conjugations might have apportioned the various subcategories of meaning between them, it is helpful to consider which subtypes of imperfective meaning are most frequently expressed by the reflexes of these two conjugations in the Semitic languages.

With regard to **qatala,* the most important syntactic environments in which future or imperfective meanings are attested are conditional sentences (Arabic, Hebrew, Amarna Canaanite, Ethiopic), wishes (Arabic, Amarna Canaanite), and general statements about habitual situations (Arabic, Hebrew, Ethiopic, Akkadian). The subcategories of meaning involved here are future, irrealis*, and generic habitual (that is, habitual meaning not related to a specific time in the past, present, or future). One subcategory of imperfective meaning which is not widely attested for **qatala* is past habitual.

The **yaqtulu* conjugation is used for a wider range of meaning, including future, irrealis, past habitual, generic habitual. One area of imperfective meaning in which it is relatively less used is progressive. In Biblical Hebrew, for example, there are very few examples of progressive *yiqtōl* (S.R. Driver 1892:35-36), and some uses of *qātal* seem to retain progressive meaning (see section 9).

One hypothesis that may fit the above data is the following. When **qatala* first developed a verbal use, it had progressive meaning. Subsequently it developed immediate future meaning (similar to the use of the English Present Continuous for immediate future).[54] This would mean that there were two future conjugations with different shades of meaning (compare English, which has three or four ways of expressing the future). The future **qatala*, as well as future **yaqtulu*, could both have been used in conditional sentences, wishes, and other environments, depending on the shade of meaning desired.

In another semantic development, progressive **qatala* developed a habitual meaning, primarily with respect to generic habitual situations. The subsequent

[54] Bauer (1910:17) makes the same point, comparing **qatala* to the English Present Continuous.

development of **qatala* as a perfect, and eventually perfective led to the alignment of the perfect and perfective meanings of **qatala* with past time reference, and the imperfective meanings of **qatala* with present or future time reference.[55] This would have been advantageous in disambiguating the many potential meanings of **qatala*. Hence past habitual meaning remained in the domain of **yaqtulu*. It was only at a later stage in Hebrew, when *wəqātal* emerged as a conjugation in its own right, that it could extend to past habitual meaning without much danger of ambiguity.

*7.6 The Development of Perfective *qatala*

The first stage in the development of a perfective from a perfect is likely to have been a "hot news" perfect or a recent past perfect. A "hot news" perfect indicates a recent event which is unknown to the hearer and hence is "hot news". A Hebrew example:

melek môʾāb ***pāšaʿ*** *bî*
'the king of Moab **has rebelled** against me' (2 Kgs 3:7)

Other examples can be found in the following verses: 1 Kgs 16:16b, 2 Kgs 8:7, Isa 22:3.

In this construction, the focus on the continuing state as a result of the event is very weak. Hence not much more semantic shift is needed to create a perfective. When the constraint that the event is recent relaxed, a perfective meaning will emerge.

As mentioned in section 2, a perfect may become either a perfective or a simple past, depending on whether the language in question has a past imperfective form or not. Since Proto-Hebrew had **yaqtulu* as an imperfective form, this would lead to **qatala* taking on perfective meaning rather than simple past meaning.

With the emergence of **qatala* as a perfective, there would have been two perfective conjugations, **yaqtul* and **qatala*. How did they differ in distribution? One possible distinguishing feature might be the discourse feature of foreground* versus background*. In narrative, clauses with perfect aspect tend to be used for events which are out of sequence with the main event line, that is, for background clauses, rather than for foregrounded mainline events (Bybee, Perkins and Pagliuca 1994:62). This is because part of their meaning focuses on a continuing state or continuing relevance, rather than focusing exclusively on the occurrence of an event, as perfective aspect does. Since perfective **qatala* derived from perfect **qatala*, it might have initially predominated in background clauses, whereas **wayaqtul* remained dominant in foreground (mainline) clauses.

Robert Longacre claims (1989:80-81) that this distributional tendency is still seen in Biblical Hebrew and that "clauses with a preterite [i.e. *wayyiqtōl*] [are] on the narrative line and all clauses with some other form of the verb [are] off-the-line". This claim, however, is disputed by Bailey and Levinsohn (1992). They argue that

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55 There is possibly a partial parallel with the development of the perfective form in Abkhaz. Besides its use as a perfective, it can also be used as a resultative, concessive, and immediate future (Bybee, Perkins and Pagliuca 1994:278).

the function of independent *qātal* clauses with preverbal elements (the verb in non-initial position) in Hebrew narrative is topicalization* or focus, and "does not specify that the information concerned is backgrounded" (1992:179). Rather it indicates topic* discontinuity.

Perhaps one way of resolving these analyses would be to suggest that these competing functions reflect a diachronic layering effect (see section 2.1). At the time of the initial development of perfective **qatala* from perfect **qatala*, it may have been used for backgrounded information. This function would be reflected in the large number of *qātal* clauses in Hebrew narrative which are used for backgrounded information (e.g. circumstantial clauses). However as its status as a perfective became more established, it extended its usage to foreground clauses as well, especially in chiastic* sentences (Andersen 1974:119-140). This is in line with Bailey and Levinsohn's conclusion (1992:202): "It often does present backgrounded information but, particularly in Andersen's chiastic sentences, it frequently does not." In these latter cases, the foreground/background distinction was no longer important in determining the choice of verb, but factors such as topicalization and the word order of the clause became more important. This would help explain why the **yaqtul* preterite is preserved in clause-initial *wayyiqtōl*, and why clause-initial *qātal* is relatively rare.

7.7 The Development of a Stress Distinction

The stress distinction between perfect and perfective *wəqā'taltî* with normal penultimate stress and imperfective and future *wəqātal'tî* with final stress is probably a late development. Out of the nine inflectional forms of *wəqātal*, the distinction only occurs in two (1 sg. and 2 m. sg.). In some of the forms the distinction would be impossible for phonological reasons, but in the first person plural, *wəqā'talnû*, the stress is always penultimate regardless of the meaning. If the differing stress was the main signal of the semantic distinction between the two formations, why did it not spread by analogy to more forms? And why is the stress distinction not present in the more basic formation *qātal*, but only in the derived formation *wəqātal*? All this suggests that it is a relatively recent and secondary phenomenon.

Revell (1984) shows that this final stress pattern is anomalous in terms of the normal stress patterns of Biblical Hebrew. He concludes that:

> The consistent final stressing of 1cs and 2ms *waw* consecutive perfects ... must represent a special development within the language. It seems highly probable that the possibility of final stress in these forms has been used to provide a means of marking a semantic category which was otherwise not distinguished. (1984:440)

With regard to the date of this stress shift, Müller (1991:149) suggests that the fact that the stress shift has not affected the vowel quality indicates that it is late. Revell suggests that it "almost certainly arose after this form had ceased to be used even in contemporary literature, and probably arose within the biblical reading tradition" (1984:440). Hence this can be considered to be the last significant diachronic development in the Biblical Hebrew verbal system.

8. A Hypothesis of Diachronic Development

In this section, I integrate the arguments of the previous sections so as to set forth a hypothesis of the diachronic development of the Hebrew verbal system from Proto-Semitic. I have divided the process into eight stages. Although my main focus is on semantic changes, I also give some attention to concurrent phonological changes.

*8.1 Stage 1: *qatala as Verbal Noun*

The central meanings of the verb conjugations at Stage 1 are set forth in Table 12. This stage precedes Proto-Semitic, since it could be argued that the actual divergence of different branches probably occurred after Stage 3.

TABLE 12

STAGE 1

Verb type	Preterite, Perfect	Imperfective, Future	Progressive	Verbal Noun	Agentive Noun
Transitive	**yaqtul*	**yaqtulu*	**yaqtulu*	**qatala*	**qātilu*
Intransitive	**yaqtal*	**yaqtalu*	**yaqtalu*	**qatala*	**qātilu*
Stative	-	-	-	**qatila,*qatula*	-

This stage differs from Diakonoff's reconstruction of Proto-Semitic as set out in Table 4 in that it posits **yaqtulu* as the Proto-Semitic imperfective form rather than **yaqatal*. Unlike Diakonoff, I do not posit a separate form for subordinate clauses.
I differ from Diakonoff in the treatment of the **qatVla* forms. Transitive and intransitive **qatala* are posited as having functioned as verbal nouns, parallel to participial **qātilu*. The difference between the two at this stage is unclear, although perhaps **qatala* designated the activity, rather than the agent, having slightly more verbal features and **qātilu* more nominal features. Stative **qatila/*qatula* are listed under the verbal noun column, but it should be understood that they designated the noun of a state, functioning like a predicative* adjective.
Perfect meaning is listed together with preterite, since it is presumed that **yaqtul* and **yaqtal* covered both areas of meaning. Progressive is one subcategory of imperfective. It is listed on the table in anticipation of the next stage.

*8.2 Stage 2: Progressive and Resultative *qatala*

The central meanings of the verb conjugations at Stage 2 are set forth in Table 13.

TABLE 13

STAGE 2

Verb type	Preterite, Perfect	Imperfective, Future	Progressive	Resultative	Agentive Noun
Transitive	**yaqtul*	** yaqtulu*	**yaqtulu*	**qatala*	**qātilu*
Intransitive	**yaqtal*	**yaqtalu*	**qatala*	-	**qātilu*
Stative	-	**qatila, qatula*	-	-	-

Stage 2 differs from the previous stage in the following ways. The **qatala* conjugation has taken on more verbal features, leaving **qātilu* as the agentive noun. It has split into two meanings, with activity verbs (listed for convenience in the intransitive row, since many of them are intransitive) acquiring progressive meaning, displacing **yaqtulu* for that portion of imperfective meaning, and achievement and accomplishment verbs (listed for convenience in the transitive row) acquiring resultative meaning (the first step on the path to perfect meaning). The actual details of the semantic split would have been more complex, as discussed earlier in relation to Japanese and the Dravidian languages. Although I have used the labels transitive and intransitive for the sake of convenience in the table, actually the split could also be expressed in terms of activities acquiring progressive meaning, achievements acquiring resultative meaning, and accomplishments split between the two depending on whether the focus of a particular clause was on the action or the accomplished state.

Whereas the imperfective semantic field has been split between two forms in the intransitive verbs, with **qatala* for progressive (a subset of imperfective) and **yaqtalu* for other imperfective uses, for transitive verbs **yaqtulu* is still used for the whole range of meaning.

The stative verbs **qatila* and **qatula* have also taken on more verbal features. They are listed as imperfective, since that is the default meaning of a stative verb.

*8.3 Stage 3: Future *qatala*

The central meanings of the verb conjugations at Stage 3 are set forth in Table 14. This stage is probably the closest to Proto-Semitic just before the different branches diverged. A progressive and future meaning of **qatala* in Proto-Semitic would be the source of the future and habitual meanings of **qatala* in a wide range of Semitic languages.

TABLE 14

STAGE 3

Verb type	Preterite, Perfect	Imperfective, Future	Progressive , Future	Resultative	Agentive Noun
Transitive	**yaqtul*	** yaqtulu*	**qatala*	**qatala*	**qātilu*
Intransitive	**yaqtal*	**yaqtalu*	**qatala*	-	**qātilu*
Stative	-	**qatila, *qatula*	-	-	-

Stage 3 differs from the previous stage in the following ways. The progressive meaning of the **qatala* conjugation has been grammaticalized and extended from activity verbs (listed as intransitive) to achievement and accomplishment verbs (listed as transitive), thus displacing **yaqtulu*. It has also taken on future meaning (perhaps initially restricted to immediate future).

*8.4 Stage 4: Imperfective and Perfect *qatala*

The central meanings of the verb conjugations at Stage 4 are set forth in Table 15. This stage approximates West Semitic after the split with Northeast Semitic. The presence of *qatala* with perfect meaning in Eblaite is suggestive of the relatively early date of this stage.[56]

TABLE 15
STAGE 4

Verb type	Preterite	Imperfective, Future	Progressive, Future	Resultative, Perfect	Agentive Noun
Transitive	**yaqtul*	**yaqtulu*	**qatala*	**qatala*	**qātilu*
Intransitive	**yiqtal*	**yiqtalu, *qatala*	**qatala*	**qatala*	**qātilu*
Stative	-	**qatila, *qatula*	-	**qatila, *qatula*	-

Stage 4 differs from the previous stage in the following ways.

8.4.1 Extension of Meaning

Intransitive (or more precisely, activity verb) **qatala* has moved along the common diachronic path from progressive to imperfective. There are thus two competing imperfective conjugations. It may be that the **qatala* imperfective was more common in generic habitual clauses, since that is an environment where it tends to be preserved, whereas **yaqtulu* was more predominant in other imperfective environments.

The resultative meaning of transitive (or more precisely, achievement and accomplishment verb) **qatala* has been extended to anterior/perfect meaning in accordance with the common diachronic path, displacing **yaqtul*. This meaning is grammaticalized and extended to the intransitive (activity verb) **qatala,* displacing **yaqtal*. With stative verbs, **qatila/*qatula* have acquired anterior/perfect meaning in addition to their previous imperfective meaning (the default case for statives). Note that stative verbs are excluded from resultative constructions, because the meaning is incompatible with stative semantics.[57]

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[56] In relation to the Eblaite evidence Müller (1984:159) says: "Das Problem ... einer Erklärung der Verwendung des Bildungstyps *qatal(a)* für die 'perfektische' Bedeutung stellt sich also schon für einen wesentlich früheren Zeitpunkt, als bisher angenommen wurde."

[57] See the discussion in Section 2.

8.4.2 Phonological Changes

For intransitive verbs, the prefix of the **yaqtal* and **yaqtalu* has undergone the Barth-Ginsberg dissimilation changing from *a* to *i* to dissimilate from the theme vowel of the stem. Although the timing of this phonological change is uncertain with regard to the semantic development of the verb conjugations, I have put at this stage, since it is attested for Eblaite, as well as for Amarna Canaanite, Ugaritic and Hebrew. It presumably does not go back to Proto-Semitic, since it is not attested in Amorite or Akkadian (Joüon 1991:129 [§41e]).

8.5 Stage 5: Preterite *qatala

The central meanings of the verb conjugations at Stage 5 are set forth in Table 16. I am presuming that Amarna Canaanite represents a reasonable approximation to this stage of preclassical Hebrew. Hence the meanings at this stage are close to those set out in Rainey (1996, II), although the semantic terms I use differ from his.

TABLE 16

STAGE 5

Verb type	**Preterite**	**Imperfective, Future**	**Future, Habitual**	**Perfect**	**Agentive N. Progressive**
Transitive	**yaqtul, *qatala*	**yaqtulu*	**qatala*	**qatala*	**qōtilu*
Intransitive	**yiqtal, *qatala*	**yiqtalu*	**qatala*	**qatala*	**qōtilu*
Stative	-	**qatila, *qatula*	-	**qatila, *qatula*	-

Stage 5 differs from the previous stage in the following ways.

8.5.1 Extension of Meaning

The participle has taken over the area of progressive meaning, displacing **qatala*. The use of **qatala* with future meaning is restricted to certain contexts, such as conditional sentences and purpose clauses. Its imperfective meaning is in the area of generic habitual rather than past habitual.

The **qatala* conjugation has followed the common diachronic path from perfect to preterite. It shares this area of meaning with the **yaqtul* and **yiqtal* conjugations.

8.5.2 Phonological Changes

The so-called South Canaanite sound shift has taken place: the long *ā* vowel as found in the participle has changed to *ō*. This change must have occurred by Stage 5, since it is attested in the Amarna texts. It probably occurred not long before the time of the Amarna texts, since at that time it had not yet spread over the whole territory of Palestine and Syria, as is evidenced by its absence from Ugaritic (Harris 1939:

43-44) and from certain place names such as *Akka* (Acre) and *Magidda* (Megiddo) (Kutscher 1982:24).

8.6 Stage 6: Dropping of Final Short Vowels

The central meanings of the verb conjugations at Stage 6 are set forth in Table 17.

TABLE 17
STAGE 6

Verb type	Preterite	Imperfective, Future	Future, Habitual	Perfect	Progressive Agentive N.
Transitive	**(wa)yaqtul* **qatal*	**yaqtul*	**(wa)qatal*	**qatal*	**qōtil*
Intransitive	**(wa)yiqtal* **qatal*	**yiqtal*	**(wa)qatal*	**qatal*	**qōtil*
Stative	-	**qatil, *qatul*	-	**qatil, *qatul*	-

Stage 6 differs from the previous stage in the following ways. A phonological change has resulted in the elision* of final short vowels. The effect of this sound change was the loss of nominal case endings as well as the final *-u* of **yaqtulu*. Final short vowels are still present in Amarna Canaanite and Ugaritic (Moscati 1964:95). Garr (1985:63) says: "Case endings were, for the most part, lost throughout the first millennium NWS dialects." The date of this change was hence towards the end of the second millennium (Sáenz-Badillos 1993:48).

The main effect of this change on the verbal system was the elimination of the phonological distinction between **yaqtulu* and **yaqtul*. This probably created a systemic pressure leading to the decline of preterite **yaqtul* and the corresponding increase of preterite **qatal*.

The presence or absence of the coordinate **wa-* prefix on the **yaqtul* and **qatal* conjugations does not affect their aspectual meaning. It does indicate that preterite **yaqtul* and future/habitual **qatal* occurred more frequently with the **wa-* prefix than the imperfective **yaqtul* or perfect **qatal* forms did. It is marked here in anticipation of the next stage.

*8.7 Stage 7: Reanalysis of *waqatal and *wayaqtul*

The central meanings of the verb conjugations at Stage 7 are set forth in Table 18. This stage corresponds to classical Biblical Hebrew.

TABLE 18
STAGE 7

Verb type	Preterite	Imperfective, Future	Perfect	Progressive, Agentive N.
Transitive	**wayaqtul*, **qatal*	**yaqtul*, **waqatal*	**qatal*	**qōtil*
Intransitive	**wayiqtal*, **qatal*	**yiqtal* **waqatal*	**qatal*	**qōtil*
Stative	-	**qatil*, **qatul*	**qatil*, **qatul*	-

Stage 7 differs from the previous stage in the following ways. The loss of final vowels means that there is no longer a phonological distinction between preterite **yaqtul* and imperfective/future **yaqtul*. To differentiate the two, a reanalysis takes place so that what distinguishes preterite meaning from imperfective meaning is no longer the final vowel, but rather the presence or absence of the coordinating prefix *wa-*. The use of preterite **yaqtul* accordingly declines.
A similar process of reanalysis occurs with **waqatal* and **qatal* so that what distinguishes imperfective meaning from perfect meaning is the presence or absence of the coordinating prefix **wa-*. Once **waqatal* was clearly distinguished from **qatal*, it was able to spread over the whole range of imperfective meaning, including past habitual.

8.8 Stage 8: Tiberian Hebrew

The central meanings of the verb conjugations at Stage 8 are set forth in Table 19.

TABLE 19
STAGE 8

Verb type	Preterite	Imperfective, Future	Perfect	Progressive, Agentive N.
Transitive	*wayyiqtōl, qātal, wəqā'taltî*	*yiqtōl, wəqātal('tî)*	*qātal, wəqā'taltî*	*qōtēl*
Intransitive	*wayyiqtal, qātal, wəqā'taltî*	*yiqtal, wəqātal('tî)*	*qātal, wəqā'taltî*	*qōtēl*
Stative	-	*qātēl, qatōl*	*qātēl, qātōl*	-

Stage 8 differs from the previous stage in the following ways.

8.8.1 Meaning Distinction

A shift in stress from penultimate to ultima* in certain forms of imperfective *wəqātal* has helped clarify the semantic distinction between imperfective *weqātal'tî* and perfect and preterite *wəqā'taltî*.

8.8.2 Phonological Changes

The coordinating conjunction **wa-* has undergone attenuation to become *wə-*. This sound change did not occur in the **wayaqtul* form, which underwent gemination of the initial root consonant of **wayyaqtul* as a way of preserving the vowel quality. Revell says (1984:443):

> This could have arisen naturally before 3ms *waw* consecutive imperfect forms from roots III *h*, which had initial stress. This form of the conjunction could then have been transferred to other forms as a distinguishing mark of the otherwise generally unmarked semantic category "*waw* consecutive imperfect". Since other forms did not have initial stress, the consonant following the conjunction had to be doubled to maintain the length of the syllable.

Vowels in penultimate stressed syllables have undergone lengthening and change of vowel quality ($i \rightarrow \bar{e}$ and $u \rightarrow \bar{o}$). With regard to the former change, Andersen says (1992:68): "$\bar{e} \leftarrow$ **i* is so rarely *plene* in MT [Masoretic text] that one wonders if the change had even taken place before the spelling of biblical texts was standardized and pretty well frozen." If we assume that the two sound changes were associated, this points to a late date.[58]

A process of attenuation has changed the *a* of the verb prefix of **yaqtōl and *wayyaqtōl* to *i* resulting in *yiqtōl and wayyiqtōl*. This change is not evident in the Septuagint, and only partially attested in Origen's *Secunda*[59], so it probably occurred early in the common era.

9. Archaic Verbal Meanings in Classical Hebrew

In this section, I will draw attention to some implications of the diachronic hypothesis presented in this paper for the synchronic analysis of the verbal system of Classical Hebrew. In particular, I will mention meanings of verb conjugations which can be understood as relics of an earlier stage in the language. Since this topic would require a whole dissertation to give an adequate treatment, I will limit myself to a few examples of each type, and not enter into discussion of the reasons for assigning the particular meanings suggested in each case.

9.1 Archaic Meanings of yiqtōl

It is widely acknowledged that *yiqtōl* with preterite meaning is an archaic usage. I will give examples of several different types, and list references to other similar cases.[60]

Preterite *yiqtōl* regularly occurs after the temporal conjunction *ʾāz* 'then'. For example:

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58 This evidence goes against Harris' view (1939:60-61) that this sound change occurred in tandem with the loss of final short vowels.

59 Sáenz-Badillos (1993:84).

60 Many of the examples listed here come from G.R. Driver (1936:138-144).

ʾāz ***yāšîr-mōšeh ûbənê*** *yiśraʾēl ʾet-haššîrâ hazzōʾt*
'then Moses and the sons of Israel **sang** this song' (Ex 15:1)

Other examples after *ʾāz* are found in Num 21:17; Deut 4:41; Jos 8:30; 1 Kgs 8:1 (par. 2 Chr 5:2); 1 Kgs 11:7; 2 Kgs 12:18; 15:16; 16:5. See the discussion in I. Rabinowitz (1984) and Revell (1984:444).
Preterite *yiqtōl* occurs quite often in poetry and in prophetic discourse, and occasionally in prose. For example:

tiblāᶜēmô *ʾāreṣ*
'the earth **swallowed** them' Ex 15:12 (Song of the Sea)

wattibbāqaᶜ hāᶜîr wəkol-ʾanšê hammilḥāmâ ***yibrəḥû*** *wayyēṣʾû mēhāᶜîr laylâ*
'then a breach was made in the city and all the men of war **fled** and went out from the city by night' (Jer 52:7)

Other examples in poetry: Ex 15:5, 14, 15; Deut 32:8; Jdg 5:29, Job 3:3, 11, 16; 4:12-16; 10:10; 15:7, Ps 18:12; 48:8; 78:15, 26, 29, 36, 44, 45, 58, 72; 80:8. Examples in prophetic discourse include: Isa 6:4; 10:13; 44:15; 48:3; 51:2, 3; 53:7; 63:3; Hos 1:10; 11:3-4. Other examples in prose include: Gen 37:7; Jdg 2:1; 1 Kgs 20:33; 2 Kgs 8:29; 9:15. The following example occurs in quoted dialogue: 2 Kgs 20:14.
G.R. Driver (1936:143-144) suggests that the occurrence of *yiqtōl* in personal names often reflects archaic preterite meaning, such as *yaᶜăqōb* 'he grasped the heel'; *yišmāᶜēl* 'God heard' (Gen 16:11); *yhwh yirʾeh* 'Yahweh provided' (Gen 22:14).

9.2 Archaic Meanings of qātal

Whereas the main meanings of *qātal* in Biblical Hebrew are perfect and preterite, according to my diachronic hypothesis, at earlier stages it had other meanings such as verbal noun, resultative, progressive, imperfective, and future. There are many uses of *qātal* in the Biblical corpus which could be analyzed as remnants of these earlier meanings. These usages have been described in a variety of ways in Hebrew grammars. I am suggesting that it may be best to see these diverse meanings as a manifestation of the layering phenomenon which is a result of diachronic change.
The large number of possible meanings of *qātal* has led Baayen (1997:245) to suggest that it has "no intrinsic semantic value and it serves a pragmatic function only", with all imputed tense or aspectual meanings coming from the context. However, the fact that all the meanings can be linked on a diachronic path is evidence that they are natural and substantial. Another language with a verb form with a somewhat similar large range of meanings is Yagaria, a language of Papua New Guinea. The past tense is marked by the suffix *-d-* and can be used for completive, perfective, habitual, resultative, present state, simple past, and past state. Some of the factors which help distinguish the possible meanings in Yagaria are whether the verb is stative or not, and whether the subjects of successive verbs are identical or not. Bybee, Perkins and Pagliuca (1994:94) give the following explanation: "This Yagaria suffix, then, may be an example of a [grammatical morpheme] that is traveling through all the stages of anterior, resultative, perfective, and finally

past." This example suggests that the large range of meanings found in Hebrew *qātal* can be explained in a similar way.

*9.2.1 Remnants of Verbal Noun *qatala*

A number of occurrences of *qātal* can be found in which it acts like a noun in that it takes the definite article *ha-*.[61] The effect of the article is to nominalize the verb. The fact that *qātal* has the potential to be nominalized in this way, in contrast to *yiqtōl,* can be interpreted as a remnant of an earlier stage of the language when **qatala* was a verbal noun. Nominalized *qātal* functions in a number of syntactic environments:
It can be in apposition* to a noun, acting like an agentive noun. The implicit subject of *qātal* is coreferential* with the noun it is in apposition to. For example:

wayyōʾmer ʾel-qəṣînê ʾanšê hammilḥāmâ ***hehālkû*** *ʾittô*
'and he said to the captains of the men of war who **were going** with him' (Jos 10:24)

Other examples: Gen 21:3; Jdg 13:8; 1 Kgs 11:9; Ezra 10:14, 17; Isa 56:3; Ezek 26:17, Ruth 1:22; 4:3.[62]
It can be in apposition to a noun or nominal element while having an explicit subject different from the noun it is in apposition to. For example:

wəkōl ***hahiqdîš*** *šəmûʾēl hārōʾeh*
'And everything that Samuel the seer **dedicated**' (1 Chr 26:28)

Another example: Ezra 8:25.
It can be the object of a preposition, for example:

wayyiśmaḥ yəḥizqiyyāhû wəkol-hāʿām ʿal ***hahēkîn*** *hāʾĕlōhîm lāʿām*
'Hezekiah and all the people rejoiced at what God **had brought about** for the people' (2 Chr 29:36)

Another example: Dan 8:1.
In the following example, the accentuation shows stress on the penultimate syllable, thus identifying the form as *qātal*, rather than a participle, which would have final stress.

wayyišməʿû šəlōšet rēʿê ʾiyyôb ʾēt kol-hārāʿâ hazzōʾt ***hab'bāʾâ*** *ʿālāyw*
'and Job's three friends heard about all this trouble that **had come** upon him' (Job 2:11)

Other examples: Gen 18:21; Isa 51:10.[63]

*9.2.2 Remnants of Progressive *qatala*

One context in which one can find remnants of a progressive use of *qātal* is the *hinnēh* construction. The *hinnēh* explicitly relates the predication to a reference point, which is often the time and place of the speech act. In that case it has present reference. When used with *qātal,* it cannot have perfective meaning, since that

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61 Thanks to Francis I. Andersen for finding these forms on his computerized index to Andersen and Forbes (1997).

62 The last two examples were brought to my attention by Frederic Bush.

63 This example is mentioned by S.R. Driver (1892:18 n. 1).

would have past reference. It can have perfect meaning, referring to a past event which has relevance for the present reference point. However, often the predication could just as easily be interpreted as present progressive, portraying an event still in progress. For example:

hinnēh ***šālaḥtî*** *ʾēleykā ʾet-naʿămān ʿabdî*
'behold **I am sending/have sent** you Naaman my servant (2 Kgs 5:6)

Another example: 1 Kgs 15:19. It may be that we should interpret these clauses as present perfect in line with the contemporary salient meaning of *qātal*. However, at least we can see that this is one syntactic environment in which a semantic shift from progressive to perfect could have taken place.
The following is a clearer example of *qātal* with present progressive meaning: After God says to the people of Israel, *šûbû* 'Return!' they respond:

hinənû ***ʾātānû*** *lāk kî ʾattâ yhwh ʾĕlōhênû*
'behold **we are coming** to you, for you are the LORD our God' (Jer 3:22)

The following example is best interpreted as having past progressive meaning:

wayyipen binyāmin ʾaḥărāyw wəhinnēh ***ʿālâ*** *kəlîl-hāʿîr haššāmāymâ*
'the Benjaminites turned around and behold the smoke of the city **was going up** into the sky' (Jdg 20:40)

*9.2.3 Remnants of Imperfective *qatala*

The use of *qātal* with stative verbs, such as *yādaʿ* 'know,' to express continuative imperfective aspect is so common that it does not need illustration. Of more interest is the use of *qātal* to express habitual aspect. In the following example, habitual aspect is initially expressed by *yiqtōl* forms, and then by *qātal*:

bəgaʾăwat rāšāʿ yidlaq ʿānî yittāpəśû biməzimmôt zû ḥašābû: kî ***hillel*** *rāšāʿ ʿal-taʾăwat napšô ûbōṣēaʿ* ***bērēk niʾēṣ*** *yhwh*
'In arrogance the wicked hunt down the weak; they are caught in the schemes they have devised. The wicked man **boasts** of the cravings of his heart; he **blesses** the greedy (and) **reviles** the LORD.' (Ps 10:2-3)

Other examples: Jer 8:7; Ps 33:13-14; 34:11 (Eng 34:10); Prov 10:12.[64]

*9.2.4 Remnants of Future *qatala*

In many languages, a progressive form can be used to express immediate future. Hence the immediate future use of *qātal* is closely related to its progressive use. The following are some examples of *hinnēh* plus *qātal* with immediate future meaning. This can be compared to the more frequent construction of *hinnēh* plus participle for immediate future.

64 Examples from S.R. Driver (1892:17) and Waltke and O'Connor (1990:488).

hinnēh ʿāśîtî kidəbāreykā hinnēh ***nātattî*** *ləkā lēb ḥākām wənābôn*
'behold **I am going to do** as you said, **I am going to give** you a wise and discerning heart' (1 Kgs 3:12)

ûləyišmāʿēʾl šəmaʿtîkā hinnēh ***bērakтî*** *ʾōtô*
'and as for Ishmael, I have heard you; behold **I am going to bless** him' (Gen 17:20)

Other examples occur without a *hinnēh* particle. For example, the following can be best interpreted as having present progressive meaning or immediate future meaning.

ḥelqat haśśādeh ʾăšer ləʾāḥînû leʾĕlîmelek ***mākərâ*** *noʿŏmî*
'Naomi **is selling** the piece of land that belongs to Elimelech our brother' (Ruth 4:3)

Other examples include Gen 23:11, 13; Lev 26:44; Num 17:27; 32:19; Jdg 15:3; 1 Sam 15:2; 2 Chr 12:5; Ps 20:7; 31:23; Isa 6:5, 43:14; Jer 31:33; 40:4; Lam 3:54; Ezek 21:9.[65]

The use of *qātal* in the apodosis of conditional sentences can be regarded as a remnant of an earlier future *qātal*. For example:

wəʾāmar lô kî ʿattâ tittēn wəʾim-lōʾ ***lāqaḥtî*** *bəḥāzəqâ*
'and he said to him: No, give it now; if not, **I'll take** it by force.' (1 Sam 2:16)

Other examples: Gen 24:14; Num; 32:23; Ezek 33:6; Jdg 8:19; Job 20:14.[66]

The phenomenon of the so-called "prophetic perfect" involves the use of *qātal* with future time reference. While some of these can be explained as statives, which are not restricted in time reference, or as future perfect,[67] others are not amenable to such explanations. Since some of these occur in prophetic discourse, it has been claimed that this is a special prophetic usage in which the prophet portrays a future event as if it had already happened. Recognition of an archaic future use of *qātal* eliminates the need for such overly psychological explanations. Such a usage does not need to be traced to prophetic imagination, but rather to the tendency for prophetic discourse to use archaic language. For example:

ʾerʾennû wəlōʾ ʿattâ ʾăšûrennû wəlōʾ qārôb ***dārak*** *kôkāb miyyaʿăqōb wəqām šēbeṭ miyyiśrāʾēl*
'I see him, but not now; I behold him, but not near. A star **will come** out of Jacob, and a scepter will rise out of Israel' (Num 24:17)

Other examples include: Gen 30:13; Isa 10:28; 28:2; 30:5; Jer 5:6; 6:2.[68]

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65 This list of passages is mostly taken from S.R. Driver (1892:17-18). Waltke and O'Connor (1990:489) call this usage the "perfective of resolve" which is a rather inappropriate label.

66 Examples from S.R. Driver (1892:176) and Waltke and O'Connor (1990:494).

67 Waltke and O'Connor (1990:491) give Gen 28:15; Jer 8:3 and Dan 11:36 as examples of future perfect.

68 Examples from Waltke and O'Connor (1990:490) and S.R. Driver (1892:19-21).

9.3 Archaic Meanings of wayyiqtōl

Before the development of **qatala* as a perfect, this meaning would have been expressed by **yaqtul*. It may be that remnants of this use can be found in *wayyiqtōl* in some cases when it occurs after perfect *qātal*. For example:

> *ʿal-kēn gādəlû* ***wayyaʿšîrû***
> 'therefore you have become great and **grown rich**' (Jer 5:27)

Other examples: Ps 30:12; Isa 41:5; Hos 4:12.

10. Conclusion

In part, this paper has reviewed and assembled the findings of other scholars in relation to the diachronic development of the Hebrew verbal system. But I hope it has also made some new contributions to this important question. These include:

- The application of findings in the fields of grammaticalization and common diachronic paths to the problem of the Hebrew verbal system.
- The suggestion that both imperfective/future *wəqātal* and perfect/preterite *qātal* derive from an earlier stage of **qatala* with progressive/resultative meaning, comparable to forms in Japanese and some Dravidian languages.
- A new hypothetical reconstruction of stages of development.

Further research is needed in order to arrive at a clearer understanding of the diachronic development of Hebrew verb conjugations. A detailed survey is needed of all the verbs in the Hebrew Bible to investigate whether those cases which seem to represent deviant usage in terms of the norms of classical Hebrew prose can be accounted for as survivals from earlier stages, either as an authentic archaic usage preserved in an old text, or as imitative archaizing. More light could be thrown on the verbal systems of other Semitic languages through linguistic analysis incorporating an understanding of universal tense-aspect categories and patterns of grammaticalization. Continued work in describing modern Afrasian languages and newly discovered Semitic languages such as Eblaite will shed new light on the problem.

APPENDIX A: A linguistic glossary

This glossary gives definitions of linguistic terms which are marked with a final asterisk in the text.

accomplishment	A situation type* involving an event with an intrinsic endpoint, e.g. *defeat, build something.*
achievement	A situation type* involving an instantaneous event, e.g. *break, arrive.*
activity	A situation type* involving an event without an intrinsic endpoint, e.g. *run, play.*
affiliation	Which language family or branch a language belongs to.
Afrasian	A language family found in the Middle East and Northern Africa, also known as Afro-Asiatic or Hamito-Semitic.
agent	The entity (usually a person) who brings about an action.
agentive noun	A noun which describes the doer of an action.
allomorph	Two or more forms of the same morpheme* which are different in sound but exactly the same in meaning. For example, *-es* and *-s* are allomorphs of the plural morpheme in English.
aorist	An alternative name for perfective*.
apodosis	The second half of a conditional* sentence, which describes the result if the condition is met.
anterior	An alternative name for perfect* aspect.
apposition	Two nouns or noun phrases in succession, both referring to the same thing.
aspect	How the temporal structure of a situation is portrayed, in terms of whether the focus is on one complete situation, one intermediate stage of a situation, or on repeated occurrences of a situation.
background	The clauses in a narrative which provide supplementary or explanatory information.
bounded	Having a clear beginning and end.
case ending	A suffix on a noun to indicate whether it functions as subject (nominative* case) or object (accusative case) or some other function.
chiastic sentence	A sentence in which the first clause has the pattern AB and the second has the pattern B'A'.
cliticized	An originally separate word which gets attached to another word.
cohortative	A first person imperative form, e.g. *Let's try!*
completive	A verb aspect indicating that an action was performed completely and thoroughly.
conditional	A sentence consisting of a condition (if) and a result (then).
conjugation	A set of verb forms which differ in gender, number and person, but otherwise are the same in morphological* form and in meaning with regard to tense, aspect, mood and voice.

connotation	Additional meanings that a word or morpheme* has beyond the denotation*. These can include emotive associations, implications and other less central meanings.
consecutive	Indicating that the event designated by a verb occurred after the previous reported event.
continuative	A subtype of imperfective* aspect which focuses on a situation which continues without change.
coordination	The linking of two clauses with a coordinating conjunction such as *and*.
copula	A linking verb such as *be*.
coreferential	Two lexical* items referring to the same person or thing.
creole	A new systematized language which developed out of a pidgin* language and has become the mother tongue of a speech community.
denotation	The so-called dictionary meaning of a word or morpheme*.
derived stem	A verb stem formed by the addition of consonants to the basic G stem*.
diachronic	How something such as a language changes through time.
Dravidian	A language family in Southern India unrelated to the Indo-European languages of Northern India. The most well-known Dravidian language is Tamil.
elision	The dropping of a sound from a word.
energic	A form of the prefix conjugation* with a *nun* (consonant *n*) suffix.
equative	A clause in which the subject is equated with or identified with the complement, e.g. *Steve is a professor.*
fientive	A verb which designates an event (an action) rather than a state. An alternative label is dynamic.
finite	A verb which can function as the main verb of a clause, marked for tense and agreement with the subject.
foreground	The clauses in a narrative which describe the events which make up the story.
G stem	The basic verb stem in Semitic* languages.
gemination	The doubling of a consonant or vowel.
gerund	A participle or similar verbal noun used to designate the name of an action.
gnomic	A subtype of imperfective aspect which portrays a situation which holds for all time.
grammaticalized	A concept or meaning category which is explicitly expressed in the grammar of a language by a particular morpheme or construction.
habitual	A subtype of imperfective aspect which portrays an event as being a characteristic feature of a certain period of time because it is repeated again and again.

hodiernal	A past tense restricted to events occurring earlier on the same day.
imperfective	A verbal aspect which focuses on an event or state as ongoing or continuous. There is no focus on the beginning or end of the event or state, which is hence portrayed as not bounded.
implicature	That part of the meaning of an utterance which is not explicitly coded by the words, but is implied.
indicative	Verbs used for making statements, in contrast to imperative verbs used for making commands.
infinitive absolute	One of the two forms of the infinitive in Hebrew.
inflection	Grammatical prefixes or suffixes attached to words.
intransitive	A verb which does not take an object.
irrealis	A verb form describing a situation which is not real or factual.
iterative	Referring to an event which is repeated a number of times.
jussive	A third person imperative form, e.g. *Let him speak!*
lexeme	A word or morpheme*.
lexical item	A word or morpheme*.
locative	Relating to place or location.
mainline	The clauses in a narrative which describe the sequence of events which make up the story.
morpheme	The smallest meaningful unit of a word. The word *meaningful* has three morphemes: *mean*, *-ing*, *-ful*.
morphological	Relating to the form of a word, especially in terms of what morphemes* it consists of.
nominal	Having the characteristics of a noun.
nominalization	The process of forming a noun from a word which is not itself a noun.
nominative case	A marking on a noun indicating it is the subject.
omnitemporal	Referring to all times: past, present, and future.
patient	The person or thing which is affected by the action of the verb. In active clauses it tends to be the object; in passive clauses it tends to be the subject.
penultimate	The second-last syllable of a word.
perfect	A verbal aspect which portrays an event together with a continuing result of that event which is regarded as relevant at the moment of speech or another point of reference.
perfective	A verbal aspect which portrays an event as a complete whole. The event is bounded* since the beginning and end of the event are included in the portrayal.
Permansive	An alternative name for resultative* aspect, traditionally used for the Akkadian suffix conjugation.
phonological	Relating to the sounds of a word.
pidgin	A simplified form of speech formed by two communities which do not share a common language.

predicative	Functioning as the predicate of a clause, for example, the italicized words in "He is *heavy*" or "She is *a teacher*."
preterite	A verb form expressing a combination of past tense and perfective aspect.
progressive	A verbal aspect indicating that the situation is in progress at reference time.
protasis	The first half of a conditional* sentence, consisting of the condition.
Proto-Afrasian	The supposed ancestor language of all the Afrasian* languages.
proto-form	An earlier form of a word or morpheme which supposedly existed in a proto-language.
proto-language	An earlier form of a language from which the language(s) in question is descended.
Proto-Semitic	The supposed ancestor language of all the Semitic* languages.
reconstruction	To form a hypothesis concerning what forms and structures existed in a proto-language based on a comparative study of the related languages which are descendants of the proto-language.
reduplication	A phenomenon in which a part of the word, or the whole word, is repeated within the word itself.
reference time	A particular point of time in reference to which the meaning of a verb form is interpreted. Reference time may be the point of speech, or some other point of time in the past or future.
reflex	A word or morpheme which is regarded as being the descendant of an earlier form in the ancestral language.
resultative	A verbal aspect which portrays a state which came about as the result of an earlier event.
root	In Semitic languages, words usually have a root of three consonants, whereas the vowels change to express different grammatical forms.
semantic	Referring to meaning.
Semitic	A language family in the Middle East including Hebrew, Arabic, Aramaic, Akkadian, Ethiopic, and other related languages.
sequential	Indicating that the event designated by a verb occurred after the previous reported event.
situation	A cover term that includes events and states expressed by verbs.
situation type	A classification of verbs into states*, activities*, achievements*, and accomplishments*.
state	A situation type* involving no change, e.g. *have*, *know*.
stative	A verb used to portray a state.
subordinate	A clause which cannot stand on its own, but is embedded in a main clause.
synchronic	Relating to the description of a language at one point in time, ignoring how it developed.
topicalization	Putting a phrase at the beginning of a clause in order to indicate that it is the topic.

topic discontinuity	A change in topic from one clause to the next.
transitive	A verb which takes an object.
typological	Relating to the investigation of linguistic features found commonly in the languages of the world and their classification into types.
ultima	The last syllable of a word.
utterance	A sentence used in a real world situation with a specific meaning related to that situation.
verbal noun	A word with some features of a verb and some features of a noun. Participles, gerunds, and infinitives are different types of verbal noun.
vocalization	A pattern of certain vowels in association with a consonantal root or stem.

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Abstract:

Recent linguistic research into grammaticization in a wide variety of languages around the world has shown that the development of grammatical morphemes denoting tense and aspect tends to follow common diachronic paths. This can shed light on how the Hebrew verbal system evolved from Proto-Semitic. The evidence from various Semitic and Afrasian languages suggests the following developments: (1) Hebrew preterite *wayyiqtōl* developed from Proto-Semitic preterite **yaqtul*. (2) Hebrew imperfective *yiqtōl* developed from Proto-Semitic imperfective **yaqtulu*. The imperfective **yaqattal* was not found in Proto-Semitic, but represents later innovations in Akkadian and Ethiopic. (3) Hebrew stative *qātēl* developed from Proto-Afrasian **qatila*, which was an adjectival noun. (4) In Proto-Semitic, **qatala* had both progressive and resultative meanings. Progressive **qatala* developed into Hebrew imperfective and future *wəqātal*, whereas resultative **qatala* developed into Hebrew perfect and perfective *qātal*. The process of diachronic development can be divided into eight stages. Traces of earlier stages can be found in archaic meanings of verb forms in Biblical Hebrew.

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