THE BIBLICAL HEBREW VERBAL SYSTEM:
A GRAMMATICALIZATION APPROACH

by

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[Signatures]

Signature, Dean of Graduate School

[Signature]
This study offers a semantic analysis of the Biblical Hebrew verbal system with respect to the parameters of tense, aspect, and modality. As linguistic understanding of these universal categories increases, the way is opened up to reevaluate past work on the Biblical Hebrew verb, and to make new discoveries about the system. In particular, recent studies on the grammaticalization of tense, aspect, and modality in the world’s languages (especially Bybee, Perkins, and Pagliuca 1994) provide the linguistic basis for the present study.

The first two chapters place the current work in context and clarify the issues involved in a semantic analysis of the Biblical Hebrew verbal system. The first chapter surveys recent advances in the linguistic study of the universal categories of tense, aspect, and modality. It focuses particularly on the development and exploitation of Reichenbach’s concept of a reference point in tense and tense-aspect theories. The second chapter surveys twentieth-century studies of the Semitic and Biblical Hebrew verbal systems, and concludes with a survey of recent multi-parameter studies. It critiques the strengths and weaknesses of tense, aspectual, modal, and discourse approaches to the Biblical Hebrew verbal system.

Chapter three presents a new semantic model of the Biblical Hebrew verbal system based on a grammaticalization approach. The verbal system is analyzed from both the perspective of its historical development and the semantic breadth of individual forms in the Hebrew Bible. The model recognizes semantic overlap between the forms in the verbal system, and explains the overlaps in terms of the grammaticalization of the forms.

Finally, chapter four addresses the often confused phenomena of the movement of time in
discourse (i.e., temporal succession) and the psycholinguistic concept of foreground. The chapter defines and distinguishes between temporal succession and foreground and examines the degree of correlation between each of these two parameters and the Biblical Hebrew \textit{waw}-prefixed forms (\textit{wayyiqtol} and \textit{weqatal}). In the course of the analysis, claims concerning the role of these forms in different types of discourse is critiqued.
ACKNOWLEDGEMENTS

It is a privilege at the end of a project to acknowledge those who have contributed to the preparation, inspiration, undertaking, and completion of the task. My thanks go to my professors, Drs. Cynthia L. Miller, Michael V. Fox, and Ronald L. Troxel under whose tutelage I have learned so much.

I want to especially thank my advisor, Dr. Cynthia L. Miller. I entered the Hebrew and Semitic Studies program desiring to work in linguistics and Biblical Hebrew, and I consider it providential that a year after I began my program she took her position here at the University of Wisconsin. The success of this thesis is in large part due to her sage advice and listening ear from the beginning to the end of the process. I only hope that my work will complement and augment her already well established reputation in linguistics and Biblical Hebrew.

I also want to thank Robert D. Holmstedt for his largely unseen contribution to this project. Our endless hours studying together for tests, preparing for preliminary exams, giving each other feedback on our written work and informal ideas aptly illustrates the adage, “As iron sharpens iron, so a man sharpens the wit of his friend,” as well as the truth that a little competition never hurts. I look forward to many more years of sharpening and being sharpened by my friend and colleague.

My deepest thanks go to Kathy, my wife, and my four boys, Jared, Colin, Tage, and Evan. Kathy has been a constant encouragement and has rendered to me inestimatable help by letting me chatter on to her about tense, aspect, modality, and Biblical Hebrew. My four sons have been my greatest fans, counting the days till the completion of “the book,” and providing time and again a welcome distraction from the conundrums of this project. Finally, I am thankful for a university dissertator fellowship, which has enabled me to give my full attention to the last details of the thesis and see it to successful completion.
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<td>A</td>
<td>absolute</td>
</tr>
<tr>
<td>ACC</td>
<td>accomplishment</td>
</tr>
<tr>
<td>ACH</td>
<td>achievement</td>
</tr>
<tr>
<td>ACT</td>
<td>activity</td>
</tr>
<tr>
<td>AOR</td>
<td>Aorist (Greek, see [3.32a])</td>
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<tr>
<td>AP</td>
<td>adjectival phrase</td>
</tr>
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<td>anticipatory point (see fig. 1.2)</td>
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<td>BH</td>
<td>Biblical Hebrew</td>
</tr>
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<td>BHVS</td>
<td>Biblical Hebrew verbal system</td>
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<tr>
<td>C</td>
<td>construct</td>
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<td>C</td>
<td>deictic center (see 1.4.3)</td>
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<td>C</td>
<td>lengthened (geminated) consonant (e.g., waC-, haC-)</td>
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<tr>
<td>Clₙ</td>
<td>clause (see figs. 1.13–14)</td>
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<td>COH</td>
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<td>F</td>
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<td>Fₘₙ</td>
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<td>counterfactual conditional word (lū, see [3.40b])</td>
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<tr>
<td>M</td>
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<td>mₙ</td>
<td>moment of time</td>
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<td>NAB</td>
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<td>NJB</td>
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<td>NJPS</td>
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<td>NRSV</td>
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<td>REB</td>
<td>Revised English Bible</td>
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<td>RF</td>
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<td>RF_S</td>
<td>speech-act position of reference frame (see [3.13])</td>
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<td>RH</td>
<td>Rabbinic Hebrew (from approximately 2\textsuperscript{nd} century C.E.)</td>
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<td>R_{TO}</td>
<td>time of orientation (see ex. [1.5])</td>
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<td>R_{TR}</td>
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</tr>
<tr>
<td>WQTL</td>
<td>weqatal (Waw-Consecutive Perfect)</td>
</tr>
<tr>
<td>X / x</td>
<td>any clausal constituent</td>
</tr>
<tr>
<td>YQTL</td>
<td>yiqtol (Imperfect)</td>
</tr>
<tr>
<td>1, 2, 3</td>
<td>person</td>
</tr>
<tr>
<td>0</td>
<td>nothing</td>
</tr>
</tbody>
</table>
* unattested or reconstructed (for word forms)
** unacceptable (ungrammatical) (for examples)
? possibly unacceptable (ungrammatical)
?? unclear word class boundary (see fig. 3.14)
// word class boundary (see fig. 3.14)
& conjunction, “and”
& is incompatible with, e.g., A & B = A is incompatible with B (see 1.5.1)
~ negation, e.g., ~A = not A
⊙ is composed of, e.g., A ⊙ B = is composed of A and B
> becomes, e.g., A > B = A becomes B
, is simultaneous with, e.g., R, E = R is simultaneous with E
< precedes, e.g., A < B = A preceeds B
<< wholly precedes (see table 1.8)
≤ precedes or is equal to (see table 1.8)
= is equal to
≠ is not equal to
≈ is nearly equal to
+ positive value for features
− negative value for features
± positive or negative value for features
++ target state (see table 1.13)
−− source state (see table 1.13)
0V zero vector (see fig. 1.2)
+V plus vector (see fig. 1.2)
−V minus vector (see fig. 1.2)
× multiple, e.g., × nucleus = multiple nuclei
∩ intersects, e.g., A ∩ B = A intersects B
⊇ includes, e.g., A ⊇ B = A includes B
⊆ is included in, e.g., A ⊆ B = A is included in B
☐ it is necessary
◊ it is possible
→ implies (if . . . then), e.g., A → B = if A then B
□→ necessarily implies, e.g., A □→ B = if A then necessarily B
◊→ possibly implies, e.g., A ◊→ B = if A then possibly B
1 LINGUISTIC DISCUSSION OF TENSE, ASPECT AND MODALITY

Over the past half century, the linguistic understanding of the universal categories of tense, aspect, and modality (TAM) has been steadily advancing. At the early stages of the discussion, dominated by Reichenbach’s R-point theory (1947), linguists’ primary interest was in tense. The past twenty-five years have witnessed a growing interest in aspect (e.g., Comrie 1976) and, as a result, many studies now treat tense and aspect together (e.g., Dahl 1985; Binnick 1991). The most neglected member of the TAM trio, until recently, has been the category of modality (Palmer 1986), as manifested in the fact that there are still relatively few linguistic studies that treat all three categories—TAM—together (cf. Bybee, Perkins, and Pagliuca 1994).

This development from a focus on tense alone, to a focus on aspect, and finally a rectifying of the neglect of modality is evident in the survey that follows. The goal of this chapter, however, is to scrutinize key developments in the steady growth of knowledge about these categories and presciently highlight those ideas and theories that form the foundation of the semantic theory of TAM in the Biblical Hebrew verbal system developed in chapters three and four.

1.1 BACKGROUND

An introductory discussion of tense and aspect may appropriately begin with the basic intuitions that native speakers have concerning these categories and how such notions are reflected in language. Many people’s conception of tense in language accords with Aristotle’s (384–322 B.C.E.) statement that “a verb (rēma) is that which, in addition to its proper meaning,
carries with it the notion of time” (Interpretation 3.16b5–6).1 The most plaguing question about tense and the verb at the early stages of grammar description stemmed from Aristotle’s observation that tense is a primary property of verbs and that it has something to do with time: how are the variety of verb forms in languages related to the ontological categories of time—past, present, and future? This question was further complicated by Aristotle’s view that present does not really take up any time, but is an indivisible point comprising the “boundary” between the past and future (Physics 6.3.233b33–234a4).

The Greek grammarian Dionysius Thrax (second century B.C.E.) in his grammatical treatise Technē relates the Greek “tenses” to time by proposing that there are four “subspecies” of past tense: the Imperfect, Perfect, Pluperfect, and Aorist (Binnick 1991:11).2 The denotation of present and future time is fulfilled by the Present and Future tenses respectively.3 While no explanation by Dionysius of these four subspecies has survived, his labels for them have been preserved, as given in [1.1], which offer some insight into his understanding of these forms.

[1.1]  
Perfect = parakeimenos ‘lying near’  
Pluperfect = hypersuntelikos ‘more than perfect/complete’  
Aorist = aoristos ‘indefinite,’ or ‘undefined’  
Imperfect = paratakitos ‘extended’

Dionysius’ influence on later grammatical theory is mediated by Priscian Caesariensis (fifth to sixth century C.E.). Priscian interpreted three of Dionysius’ four subspecies as distinguished by their relative distance from the present: the Perfect denotes events that occurred recently, the

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1R. H. Robins cautions that the translation of the term rēma as ‘verb’ rather than ‘predicate’ in the works of Aristotle may be misleading because the two were not clearly distinguished in the early stages of Greek grammatical theory (1997:33).

2The common convention of capitalizing language specific verb forms is followed throughout this study.

3The Greek grammarians ignored the Future Perfect in their tense arrangements as it was rarely used and regarded as peculiar to the Attic dialect (Robins 1997:36).
Pluperfect denotes events that occurred a long time ago, and the Imperfect denotes events that began but have not yet been completed (Binnick 1991:11). Priscian’s interpretation of Dionysius forms the basis of relative tense theories in Latin and Western grammatical tradition. The hallmark of relative tense theories is that they distinguish among verb tenses based on their relative distance from the present time.

From the earliest period of research on the verb, there existed alongside the relative tense explanation a second approach, which defined verb forms in terms of both tense and aspect. The introduction of aspect into a model of the Greek verb is credited to the Stoic grammarians (from ca. 300 B.C.E.), who understood aspect in terms of (in)completion (Robins 1997:36). The Stoic schema of the Greek verb, based on the morphological similarity of the stems, relates the Greek tenses along the two intersecting axes of tense and aspect, as illustrated in table 1.1.

Table 1.1: Stoic schema of the Greek verb (adapted from Binnick 1991:17).

<table>
<thead>
<tr>
<th>Aspect/Tense</th>
<th>present/future</th>
<th>past</th>
</tr>
</thead>
<tbody>
<tr>
<td>incomplete</td>
<td>Present</td>
<td>Imperfect</td>
</tr>
<tr>
<td>complete</td>
<td>Perfect</td>
<td>Pluperfect</td>
</tr>
<tr>
<td>indeterminate</td>
<td>Future</td>
<td>Aorist</td>
</tr>
</tbody>
</table>

The Roman grammarian Marcus Terentius Varro (116–27 B.C.E.) adapted this Stoic schema for Latin, dividing the present/future tense into two, and eliminating the indeterminate aspect since Latin has no equivalent to the Greek Aorist. The Varronian schema of the Latin verb is shown in table 1.2.

---

4Some scholars have proposed that Dionysius Thrax was influenced by Stoic theories since he also organized the Greek conjugations based on their morphological similarities (Robins 1997:37).

5Sigmatic stems are named for the characteristic Greek letter sigma in their tense sufformative.

<table>
<thead>
<tr>
<th>Aspect/Time</th>
<th>Past</th>
<th>Present</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Incomplete</strong></td>
<td><em>amabam (Imperfect)</em></td>
<td><em>amo (Present)</em></td>
<td><em>amabo (Future)</em></td>
</tr>
<tr>
<td></td>
<td>‘I was loving’</td>
<td>‘I love’</td>
<td>‘I shall love’</td>
</tr>
<tr>
<td><strong>Complete</strong></td>
<td><em>amaveram (Pluperfect)</em></td>
<td><em>amavi (Perfect)</em></td>
<td><em>amavero (Future Perfect)</em></td>
</tr>
<tr>
<td></td>
<td>‘I had loved’</td>
<td>‘I have loved’</td>
<td>‘I shall have loved’</td>
</tr>
</tbody>
</table>

Despite the existence of the Stoic-Varronian tense-aspect approach alongside relative tense theories, the latter generally dominated Western grammar until the eighteenth century, and even then “the revolutionary break with Priscian was not to come until [the twentieth] century, with Otto Jespersen’s critique of Madvig” (Binnick 1991:38).⁶ This statement is tempered, however, by Vincent DeCaen’s statistical claim that by a 10 to 1 ratio the nineteenth-century Latin grammars treated the verb according to the Stoic-Varronian tense-aspect model rather than the Dionysius-Priscian relative tense one (1996:138n.25; e.g., Allen [1888] 1895:291).

1.2 TENSE THEORIES

1.2.1 Prelude to the R-point

Johan Madvig’s relative tense schema of the Latin verb is the culmination of the long development of relative tense theories that began with Dionysius’ observations on the Greek verb (see 1.1). Expanding the Dionysius-Priscian model, Madvig’s schema of the Latin verb differentiates verb tenses by their relative position (praesens, praeteritum, or futurum) within each time (in praesenti, in praeterito, and in futuro), as represented in table 1.3.

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⁶This summary glosses over the problems of interpreting the fragmentary grammar of Dionysius Thrax and the Stoics, which may be variously reconstructed (see Binnick 1991:22–23; Hülser 1983:248). Nevertheless, the sources are fairly clear that from the earliest discussions there were two competing theories: one that differentiated verb forms based on their relative relationship in time (relative tense); and another that distinguished verb forms in terms of tense and aspect (Binnick 1991:25).
Madvig’s schema formed the foil for Otto Jespersen’s treatment of tense, in which he enumerated several important criticisms of Madvig’s relative tense model. First, Jespersen criticized the inherent redundancy in Madvig’s model given in table 1.3: scribam occurs twice, as representative of praesens in futuro and of futurum in praesenti; by contrast, distinct forms appear in other positions which, on analogy with the positions of scribam, are semantically equivalent (e.g., praeteritum in praesenti scripsi and praesens in praeterito scribebam) (1924:255). Second, Jespersen objected to Madvig’s tripartite division of the present, which, like Aristotle, Jespersen viewed as an indivisible point. Third, Jespersen thought it preferable to have a model of tense that is more reflective of the one-dimensional concept of time than is Madvig’s two-dimensional model of intersecting times (1924:256).

The model that Jespersen proposed as an alternative to Madvig’s preserves the present as an indivisible point, arranges the tenses on a unidimensional time line, and features only seven tenses, thus removing some of the redundancy found in Madvig’s schema. More importantly, Jespersen did not create another variety of relative tense theories (like Madvig); instead, he enriched the absolute tense model, which consists of three absolute tenses cooresponding to the three ontological time distinctions, by dividing the past and future times into three parts each. Thus, Jespersen’s model consists in seven universal temporal positions arranged along a unidimensional time line. Language specific forms are variously associated with these universal
Jespersen remarks of the after-past, "I know of no language which possesses a simple tense for this notion," and of the after-future, "this has chiefly a theoretic interest, and I doubt very much whether forms like I shall be going to write (which implies nearness in time to the chief future time) . . . are of very frequent occurrence" (1924:262–63).

Ironically, Jespersen’s theory suffers from some of the same types of inadequacies for which he criticized Madvig. On the one hand, his model has an after-past category and an after-future category, which do not seem to be realized in any language; on the other hand, it fails to provide a place for the (present) perfect. In defense of this exclusion, Jespersen states,

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The system of tenses given above will probably have to meet the objection that it assigns no place to the perfect, have written, habe geschrieben, ai écrit, etc., one of the two sides of Lat. scripsi, and in Latin often called the perfectum absolutum or “perfect definite.” This however, is really no defect in the system, for the perfect cannot be fitted into the simple series, because besides the purely temporal element it contains the element of result. It is a present, but a permansive present: it represents the present state as the outcome of past events, and may therefore be called a retrospective variety of the present. (1924:269)
```

While Jespersen’s observation that the perfect has both a temporal and an aspectual property (i.e., result) may be correct, Robert Binnick cites two other reasons why Jespersen could not fit the perfect tense into his system (1991:61–64). First, since Jespersen strictly adhered to the Aristotelian notion of the present tense as an indivisible point, he could not divide the present

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7Jespersen remarks of the after-past, “I know of no language which possesses a simple tense for this notion,” and of the after-future, “this has chiefly a theoretic interest, and I doubt very much whether forms like I shall be going to write (which implies nearness in time to the chief future time) . . . are of very frequent occurrence” (1924:262–63).

8Aristotle himself realized the problems with a strict understanding of the present as the boundary between the past and future, and therefore distinguished between the present ‘now’ and an extended use of ‘now’ (Aristotle Physics 4.13.222a10–33; Binnick terms these “proper ‘now’” and “derivative ‘now’,” 1991:4). Jespersen also recognized that ‘now’ can be of an appreciable duration; however, his model does not reflect this fact (1924:258).
as he did the past and future, which would have allowed a ‘before-present’ time slot for the perfect (cf. Reichenbach, table 1.4). Second, since he treated wishes and conditional sentences as entailing a one-step back shifting of the tense (e.g., *I am rich* > *If I was rich*), “to maintain the generalization that in back shifting the displacement is always by one step, we must allow no post- or ante-present tenses” (Binnick 1991:64). Thus, Jespersen’s absolute tense model unfortunately founders in just those areas that a relative tense model, such as Madvig’s, handles most elegantly.

It was Jespersen’s rejection of relative tenses as such which prevented him from recognizing that the retrospective (perfect or ante-) tenses—including the present perfect—can be viewed simply as pasts relative to the main divisions of past, present, and future; and similarly that the prospective (post-) tenses—including the conditional—can be viewed as futures relative to those same main divisions. Many uses of such tenses in subordinate structures, which a relative tense theory can account for directly, are at best handled indirectly in Jespersen’s theory. (Binnick 1991:62–63)

Madvig’s and Jespersen’s theories are transitional: Madvig’s work presents the culmination of the traditional relative tense approach developed from the Dionysian-Priscian model; Jespersen’s theory presents a minor but important innovation in the tripartite division of past and future, which, ironically, became a catalyst for Reichenbach’s R-point relative tense theory (Reichenbach 1947:290n.1).

1.2.2 Creation of the R-point

Hans Reichenbach’s brief theoretical exposition of tense has become the benchmark of all subsequent tense theories (1947:287–98). Dubbed the *R-point* theory, the earmark of all R-point theories is the inclusion of a *reference point* (R), which mediates in some way or other the temporal relationship between the *time of speech* (S) and the *time of the event* (E) portrayed. Reichenbach conceives of these three entities as *points* whose temporal ordering determines the variety of tenses that are possible in any given language, as illustrated in table 1.4 (temporal
precedence is represented by <, and temporal simultaneity by a comma).

Table 1.4. Hans Reichenbach’s list of possible tenses (adapted from Reichenbach 1947:297, see Declerk 1986:307)

<table>
<thead>
<tr>
<th>Structure</th>
<th>New Name</th>
<th>Traditional Name</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>E &lt; R &lt; S</td>
<td>anterior past</td>
<td>past perfect</td>
<td>‘I had done it’</td>
</tr>
<tr>
<td>E, R &lt; S</td>
<td>simple past</td>
<td>simple past</td>
<td>‘I did it’</td>
</tr>
<tr>
<td>R &lt; E &lt; S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R &lt; S, E</td>
<td>posterior past</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R &lt; S &lt; E</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E &lt; S, R</td>
<td>anterior present</td>
<td>present perfect</td>
<td>‘I have done it’</td>
</tr>
<tr>
<td>S, R, E</td>
<td>simple present</td>
<td>present</td>
<td>‘I do it’</td>
</tr>
<tr>
<td>S, R &lt; E</td>
<td>posterior present</td>
<td>simple future</td>
<td>‘I will do it’</td>
</tr>
<tr>
<td>S &lt; E &lt; R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S, E &lt; R</td>
<td>anterior future</td>
<td>future perfect</td>
<td>‘I will have done it’</td>
</tr>
<tr>
<td>E &lt; S &lt; R</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S &lt; R, E</td>
<td>simple future</td>
<td>simple future</td>
<td>‘I will do it’</td>
</tr>
<tr>
<td>S &lt; R &lt; E</td>
<td>posterior future</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The influence of Jespersen’s theory on Reichenbach’s is manifest in the names Reichenbach gave to his nine tenses (realized by thirteen different temporal orderings of E, R, and S). Unlike Jespersen, however, Reichenbach consistently made a three-fold division of each time—present as well as past and future. Thus, Reichenbach’s theory has a before-present position for the present perfect, for which Jespersen’s theory lacked a place. Unfortunately, Reichenbach’s model shares Jespersen’s weakness of empty categories: he provides no example of posterior past (Jespersen’s after-past) or posterior future (Jespersen’s after-future). Reichenbach muses that the former perhaps is represented in English by Conditionals such as I did not expect that he would win the race, and the latter found in languages that have a future participle (1947:297). Unfortunately, Reichenbach introduced redundancies that Jespersen’s schema avoids. While Reichenbach provided a category for the present perfect by his three-fold division of the present, this division also led to his assigning the simple future to two categories—the posterior present and the simple future. A redundancy of a different sort is found in the three varieties of orderings of E, R, and S in the posterior past and the anterior future. Reichenbach dismisses the importance
of the different orders: “Further differences of form result only when the position of the event relative to the point of speech is considered; this position, however, is usually irrelevant” (1947:296). Nevertheless, the multiple orderings have been seen as an “overcapacity” of his model by critics (Comrie 1981:26; Declerk 1986:307).

The impressive explanatory power of Reichenbach’s R-point theory is manifest in its application to subordinate clauses, which, as Binnick noted, Jespersen’s theory cannot adequately handle (Binnick 1991:61–62, quoted in 1.2.1 above). Reichenbach’s principle of “the permanence of the reference point” elegantly accounts for the choice of tense in subordinate clauses, which previously was explained by the complex and often violated sequence of tense rules in traditional grammars:9 “We can interpret these [sequence of tense] rules as the principle that, although the events referred to in the clauses may occupy different time points, the reference point should be the same for all clauses—a principle which, we shall say, demands the permanence of the reference point” (1947:293). This principle is illustrated by the analysis of the sentences in [1.2], in which the “permanence” of the reference points is indicated by their vertical alignment.

9The Sequence of Tense rules were developed by Roman grammarians and have been common place in grammars on Classical and Indo-European languages even into the twentieth century. The Sequence of Tense rules attempt to explain the choice of tense in subordinate sentences based on the tense in the main sentence (e.g., a primary tense follows a primary tense and a secondary tense follows a secondary tense). There are, however, many exceptions to these rules (see Binnick 1991:86–93).
Despite the apparent success of the principle of the permanence of the reference point in explaining examples like those in [1.2], Robert Allen counters that “it is not true that the reference point remains permanent throughout; rather, each E . . . serves as the reference point for the E on the next lower level. This is probably a more generally followed principle than Reichenbach’s principle of the permanence of the reference point” (1966:166–67). In Allen’s example, given in [1.3], the hypothetical event she wouldn’t eat it (third clause) is located after the event (E₂) of her promising (second clause), not the reference point (R₂).

Furthermore, the tense logician Arthur Prior points out that complex sentences such as I shall have been going to see Kathy appear to require more than one reference point. And if this is the case, observes Prior, then “it becomes unnecessary and misleading to make such a sharp distinction between the point or points of reference and the point of speech; the point of speech is just the first point of reference. . . . This makes pastness and futurity always relative to some point of reference—maybe the first one . . . or maybe some other” (Prior 1967:13). These and similar observations raise the central issue with respect to Reichenbach’s reference point: What exactly is the “point of reference”? Does it have an ontological status in the same way as the point of speech or point of event? Subsequent revisions of Reichenbach’s R-point theory have attempted to clarify the status of the reference point.
1.2.3 Revisions of the R-point

Reichenbach’s R-point theory has formed the foundation of numerous tense theories. Some have advanced the discussion of tense by addressing one or more of the three deficiencies of Reichenbach’s original formulation pointed out above: the superabundance of tense forms and/or temporal orderings for E, R, and S; the unclear ontological status of R with respect to E and S; and the apparent need of multiple reference points to account for some compound sentences.

1.2.3.1 Norbert Hornstein

While Norbert Hornstein’s theory is one of the most recent revisions of Reichenbach’s R-point theory, it is treated first here because it closely adheres to Reichenbach’s original formulation. Hornstein’s main interest is to recast Reichenbach’s theory within a government and binding framework (see Chomsky 1981) and defend Reichenbach’s principle of the permanence of the reference point. Of immediate interest here, however, is Hornstein’s proposed solution to the overabundance of tenses and S, R, E orderings in Reichenbach’s original formulation.

Hornstein initially exacerbates the situation by demonstrating that there are actually a total of twenty-four possible linear orderings of E, R, and S (instead of Reichenbach’s thirteen), shown in table 1.5.

| Table 1.5. Norbert Hornstein’s list of linear orderings of E, R, and S in Reichenbach’s theory (adapted from 1990:87–88). |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| past | E, R < S | R, E < S |
| future | S < R, E | S < E, R |
| present perfect | E < S, R | E < R, S |
| past perfect | E < R < S |
| future perfect | S < E < R | S, E < R | E < S < R | E, S < R |
| distant future | S < R < E |
| future in past | R < S, E | R < E, S | R < S < E | R < E < S |
| proximate future | S, R < E | R, S < E |
Hornstein applies two principles to pare down this listing. The first is the distinction between *intrinsic* and *extrinsic* ordering: E, R, and S are *intrinsically* ordered only if their linear order is reflected in their temporal interpretation, otherwise they are *extrinsically* ordered (1990:89).10 For instance, in the simple past formula (E, R < S or R, E < S) the order of E and R is extrinsic, whereas the order of E and R with S is intrinsic since the temporal priority of E and R to S is reflected in the temporal interpretation. Wherever the order of R, E, or S is extrinsic, ordering differences may be ignored. The second principle Hornstein uses is *compositionality*: the relationship between R, E, and S is compositional, that is, it is composed of an RE relationship and an SR relationship (1990:108). Thus, for instance, the ordering of points for present tense (E, R, S) should not be interpreted as E relative R relative S, but as composed (⊙) of (E relative R) ◦ (S relative R).

By applying these two principles (as well as rejecting Reichenbach’s posterior future category), Hornstein reduces the possible orderings from twenty-four to the eleven listed in table 1.6. Hornstein allows for alternative extrinsic orderings for three tenses (marked as i and ii), though he theorizes that only one order will be used in any given language (however, it is unclear how the difference between these alternative extrinsic orderings could be realized in a language, since, by definition, these ordering differences do not affect the temporal interpretation).

10The concept of *intrinsic* and *extrinsic* ordering appears in discussions about the ordering of rules in generative rule-based syntactic and phonological theories: two rules are *intrinsically* ordered when some formal or logical property demands they be ordered in a certain sequence (e.g., if the output of rule A provides the necessary input of rule B they must be intrinsically ordered A-B); two items are *extrinsically* ordered if there is no formal or logical constraint on their ordering, but they must simply be sequenced in some order for the purpose of carrying out the transformation (see Crystal 1991:132, 183).
Table 1.6. Norbert Hornstein’s list of possible tenses (adapted from 1990:118–19).

<table>
<thead>
<tr>
<th>Tense</th>
<th>( (S, R) \circ (R, E) = S, R, E ) (i)</th>
<th>( (R, S) \circ (E, R) = E, R, S ) (ii)</th>
</tr>
</thead>
<tbody>
<tr>
<td>present</td>
<td>(( S &lt; R )) \circ ( (E, R) = E, R &lt; S )</td>
<td></td>
</tr>
<tr>
<td>past</td>
<td>( (S &lt; R) \circ ( (R, E) = S &lt; R, E )</td>
<td></td>
</tr>
<tr>
<td>future</td>
<td>( (S &lt; R) \circ ( (E &lt; R) = E &lt; S, R ) (i)</td>
<td>( (R, S) \circ ( (E &lt; R) = E &lt; R, S ) (ii)</td>
</tr>
<tr>
<td>present perfect</td>
<td>( (S, R) \circ ( (E &lt; R) = E &lt; S, R ) (i)</td>
<td>( (R, S) \circ ( (E &lt; R) = E &lt; R, S ) (ii)</td>
</tr>
<tr>
<td>future perfect</td>
<td>( (S &lt; R) \circ ( (E &lt; R) = E &lt; R &lt; S )</td>
<td></td>
</tr>
<tr>
<td>past perfect</td>
<td>( (S &lt; R) \circ ( (R &lt; E) = E &lt; R &lt; S )</td>
<td></td>
</tr>
<tr>
<td>future in past</td>
<td>( (S &lt; R) \circ ( (R &lt; E) = E &lt; R &lt; S )</td>
<td></td>
</tr>
<tr>
<td>approximate future</td>
<td>( (S, R) \circ ( (R &lt; E) = S, R &lt; E ) (i)</td>
<td>( (R, S) \circ ( (R &lt; E) = R, S &lt; E ) (ii)</td>
</tr>
</tbody>
</table>

1.2.3.2 William Bull

William Bull made two important contributions to R-point theories. First, distinguishing between “personal (the subjective division of) time” and “public (the objective division of) time,” Bull defined the reference point as the position from which a person views a situation in personal time. In other words, the reference point is the speaker’s ‘view’ point. Second, Bull treated S (which he labeled “point present” (PP)) as the first of a possibly infinite number of reference points (see Prior’s criticism of Reichenbach’s single R-point, 1.2.2 above). Each reference point creates a new “axis of orientation” on which E occurs before, simultaneous with, or after R.

In Bull’s graphic representation of his theory, given in figure 1.2, S creates a “point present” axis (PP), which may be related via subsequent reference points to an “anticipatory point” axis (AP), a “retrospective point” axis (RP), and a “retrospective-anticipatory point” axis (RAP). The relationship between E and R on each axis is expressed by “minus vector” (−V) for \( E < R \), “zero vector” (0V) for \( E = R \), or “plus vector” (±V) for \( R < E \).

---

11 Bull notes that although theoretically languages may utilize an infinite number of R-points, most will require at the most only four (1960:23). Bernard Comrie, who criticizes Bull’s schema for allowing only two reference points, seems to have overlooked this statement (1985:122n.1).
Bull’s theory presents an important step forward in terms of understanding the nature of the reference point: it has to do with the speaker’s subjective viewpoint of a situation. Bull’s allowance of multiple reference points, beginning with S, is also an important change to the concept of the reference point (predating Prior’s germane criticism of Reichenbach). With his allowance of multiple reference points, Bull was able to account for certain forms, such as the Perfect Conditional *would have sung*, that Reichenbach’s R-point theory, with its single reference point, could not.

Bull’s representation of tense in terms of axes and vectors, however, has other inherent weaknesses. First, his axes include some gaps (denoted by “zero”), just as Reichenbach’s and Jespersen’s models had unrealized positions. Binnick points out that Bull’s theory “fails to adequately capture the notion of possible tense, because no distinction is built into the theory between slots which *happen not* to be filled and those which *in principle cannot* be” (1991:118). For example, Robert McCoard points out that there is no reason why Bull’s theory could not include an “anticipatory-retrospective point” axis, it just happens not to have one (1978:95). Second, the iconicity inherent in Jespersen’s and Reichenbach’s theories is lost in Bull’s schema.
of separate axes: “Bull’s tactic of separating all the axes one from the other . . . brings with it a certain artificiality of its own” (McCoard 1978:95–96). In other words, how are the axes and their respective reference points related to each other in time and in the speaker’s mind?

1.2.3.3 Bernard Comrie

Bernard Comrie has tried to construct a theory from the strengths of Jespersen’s, Reichenbach’s, and Bull’s tense models (Comrie 1985:122n.1). His tense model includes absolute tense, like Jespersen, as well as relative tense, like Reichenbach. In addition, his model features what he terms “absolute-relative tense.” Finally, like Bull, Comrie allows for an infinite number of reference points. Comrie’s tense taxonomy is given in table 1.7 with English examples.

| Table 1.7. Bernard Comrie’s analysis of possible tenses with English examples (based on 1994:4559–61). |
|---|---|---|
| Absolute Tense |  |
| past | E < S | Jared ate an apple. |
| present | E, S | Jared is eating an apple. |
| future | S < R | Jared will eat an apple. |
| Relative Tense |  |
| relative past | E < R | Those having sung were asked to leave the stage. |
| relative present | E, R | Those singing were asked to leave the stage. |
| relative future | R < E | Those about to sing were asked to leave the stage. |
| (R in all three examples is contextually [were asked] located before S: R < S) |
| Absolute-Relative Tense |  |
| pluperfect | E < R < S | Kathy had left by noon. |
| perfect | S < E < R | Kathy will have left by noon. |
| future in the future | S < R < E | At noon Kathy will be about to leave. |
| future in the past | R < E < S | Kathy left at noon. She would return an hour later. |
| (£ conditional) |  |
| future perfect in the past | R₂ < E < R₁ < S | Kathy left at noon. She would return an hour later, by which time Evan would have already woken up. |

Comrie defines absolute tenses as those that “use the present moment [S] as their reference point” (1985:36; see 1994:4559). He cites the English Simple Past, Present, and Future tenses as examples of absolute tense; a reference point R, separate from S, is unnecessary in analyzing these
tenses. By contrast, *relative tenses* are those tenses whose reference point is contextually determined, often by an absolute tense in an adjoining clause (1985:56; see 1994:4560). The examples of relative tenses he cites are similar to those analyzed by Reichenbach (see [1.2] above), and Comrie treats them in similar fashion. Finally, *absolute-relative tenses* contain elements of both absolute and relative tenses: “a situation is located in time relative to some contextually given reference point, while this reference point is in turn located relative to the present moment, all of this being done by means of a single tense” (1994:4561; see 1985:65).

Absent from Comrie’s taxonomy is the present perfect, which he claims differs only *aspectually*, not *temporally* from the simple past: “The perfect indicates the continuing present relevance of a past situation” (1976:52). He explains,

> In terms of location in time, however, the perfect is not distinct from the past. The past tense locates an event in time prior to the present moment. If one were to provide an analysis of the perfect analogous to that of the pluperfect and the future perfect, then one would say that the reference point for the perfect is simultaneous with the present moment, rather than being before the present moment (as for the pluperfect) or after the present moment (as for the future perfect). The situation in question would then be located in time prior to this reference point. In terms of location in time, however, this would give precisely the same result as the past, which also locates a situation as prior to the present moment. Thus, however perfect differs from past, it is not in terms of time location. (1985:78)

Though not consciously so, Comrie’s theory is a reply to Prior’s criticism that Reichenbach’s theory “is at once too simple and too complicated” (1967:13). He has developed a theory that utilizes only as many reference points as necessary, in contrast to Reichenbach’s theory, which presumes the presence of one and only one reference point in every tense. While most subsequent R-point theories accept the idea of multiple reference points, Hornstein claims that the number of separate adverbial modifiers allowed in a predicate is evidence that even the simple (Comrie’s “absolute”) tenses have a reference point. Revising Reichenbach’s claim that a temporal modifier modifies R and not E (1947:294), Hornstein claims that both R and E may be adverbially
modified, and that a reference point must be present in sentences with simple tenses based on the fact that there is an upward limit of two sites that temporal modifiers may be placed, associated with R and E (see Heinrichs 1986). This constraint is illustrated by the contrasting examples in [1.4] (adapted from Hornstein 1977:524–25; 1990:32).

*A week ago yesterday* John left for Paris *a six o’clock*.  
E, R < S  
<table>
<thead>
<tr>
<th>a week ago</th>
<th>at 6 o’clock</th>
</tr>
</thead>
<tbody>
<tr>
<td>yesterday</td>
<td></td>
</tr>
</tbody>
</table>

Hornstein’s theory about the limits set on modifiers supports Reichenbach’s claim that “we need three time points even for the distinction of tenses which, in a superficial consideration, seem to concern only two time points” (1947:289).

1.2.3.4 Renaat Declerk

Renaat Declerk has developed his tense theory, applied specifically to English, on the foundations of Reichenbach’s and Comrie’s models (1986:305). The central innovation in Declerk’s theory is his refinement of the concept of the reference point: “What is striking in Reichenbach (1947), Comrie (1985), and most other treatments of tense is that this notion [of the reference point] never receives an adequate technical definition” (1986:320). Declerk defines the reference point as having a dual role: it is the time referred from, with respect to locating E before, simultaneous with, or after it; and it is also the time referred to, in that it is temporally fixed by another tense or adverbial modifier (so Reichenbach 1947:294; Hornstein 1977:524–25; Comrie 1985:56). Declerk labels these two roles “time of orientation” ($R_{TO}$) and “time referred to” ($R_{TR}$), respectively.
Declerk’s understanding of the reference point is illustrated by the sentence in [1.5].

In this sentence there are three reference points: R₁ is the speech time S, which serves as the time of orientation (R₁-TO) for R₂, which it locates or refers to as before S (R₂-TR; also temporally modified by the adverbial phrase at six); at the same time, R₂ serves as the time of orientation (R₂-TO), locating E₁ (Rachel arrive) simultaneous with it, and R₃ before it (R₃-TR; like R₂, also modified by an adverbial phrase, at five); finally, R₃ serves as the time of orientation (R₃-TO), locating E₂ (Rob leave) as simultaneous with it (1986:323).

Initially Declerk’s bifurcation of the reference point appears to simply create a more complicated model. Worse, however, since the reference points in Declerk’s analysis always occur contiguously with either S or an E, his model casts doubt on the presence of a reference point at all. The sentence in [1.5] could be analyzed as E₂ < E₁ < S without recourse to a reference point, an analysis that is justified in light of Prior’s (1967:13) and Allen’s (1966:166–67) criticism of Reichenbach’s distinction between R and S (1.2.2). Declerk, however, defends the necessity of a mediating reference point (cf. Hornstein’s defense based on the number of adverbial modifiers, 1.2.3.3): in a sentence such as Tage was home this morning, the reference time (R) is located before S, but the event (E) itself may extend to S and beyond. In other words, if E were simply located before S without a mediating R, the statement would have to be analyzed as
contradictory with the case that Tage was actually home all day.

Another contribution of Declerk is his discussion of the intricateness of the temporal orderings of S, E, and R. First, he elucidates the different types of “simultaneous” relationships that may hold between E and R:

‘T.S. simul T.O.’ [= E,R] means that the two times coincide in one of the following ways: (a) both occupy the same point of the time line (as in At that moment a shot was fired), (b) both occupy (roughly) the same section of the time line (as in I was in London yesterday), or (c) the section occupied by T.S. [= E] is part of the section occupied by T.O. [= R] (as in I left yesterday) or vice versa (as in I was home at 4 o’clock). In the latter case T.S. [= E] extends beyond T.O. [= R] and there is nothing to prevent it from extending to the present or into the future. (1986:326)

Second, Declerk distinguishes two “before” relationships that E and R may have: “wholly before” and “before and up to.” The difference between these two relationships is illustrated by the English Simple Past and Present Perfect: in the case of the Simple Past, E, R is wholly before S, whereas in the case of the Present Perfect, E, R is before and up to S.

Declerk’s taxonomy of possible tenses in table 1.8, given with Reichenbach’s sigla, looks remarkably similar to Reichenbach’s list (see table 1.4). However, Declerk’s taxonomy presumes a dual function for R (i.e., time referred to and time of orientation) and distinguishes three different before relationships: before <; wholly before <<, and before and up to ≤.

| Table 1.8. Renaat Declerk’s list of possible tenses (adapted from 1986:362–63). |
|-----------------|-----------------|
| present tense   | E, R, S         |
| past tense      | E, R << S       |
| present perfect | E, R ≤ S        |
| past perfect    | E, R₁ < R₂ << S |
| conditional     | R₂ < E, R₁ << S |
| conditional perfect | R₁ < E, R₁ < R₂ << S |
| future tense    | S < E, R       |
| future perfect  | S < E, R₁ < R₂ |

Even if Declerk’s theory is insufficient to account for every possible tense, it draws attention to several deficiencies of Reichenbach’s R-point theory. In particular, the character and role of
the reference point requires a clear definition and detailed exposition. Also, the temporal relationships between E, R, and S is more complex than Reichenbach’s R-point theory recognizes.

1.2.4 Summary

The relative tense approach rooted in the Dionysian-Priscian model was fairly influential in Western grammatical tradition up until the last century. Madvig’s model of the Latin verb, which differentiated the verb forms based on the intersection of the three ontological times, is exemplary of the evolved Dionysian-Priscian type model. Jespersen’s critique of Madvig cleared the way for the new relative tense approach of Reichenbach’s R-point theory. Reichenbach’s and subsequent R-point theories are characterized by the mediation of the point of speech (S) and point of the event (E) by a reference point (R).

While the R-point theory has revolutionized the discussion of tense, the model as expounded by Reichenbach is not without weaknesses. Subsequent R-point theories have sought to redress some of these weaknesses, focusing in particular on the problem of the superabundance of possible tenses in Reichenbach’s taxonomy and the amorphous nature of the reference point. Hornstein employs the concepts of extrinsic versus intrinsic ordering and composition in order to account for redundancies in the orderings of E, R, and S. By contrast, Comrie simply eliminates the reference point wherever it is coterminous with E or S. Neither solution is completely successful, however. Hornstein’s taxonomy still includes “optional” orderings of E, R, and S for which he cannot fully account, and Comrie’s dismissal of the reference point is questionable in light of evidence that a reference point is necessary in all tenses as the antecedent of adverbial modifiers.
More promising have been attempts to clarify Reichenbach’s nondescript reference point. Both Bull and Decker propose that the reference point is the speaker’s viewpoint from which an event is evaluated as past, simultaneous, or after. However, both Bull’s and Decker’s tense theory in general have other weaknesses that limit the effectiveness of their redefinition of the reference point.

1.3 Aspect

The preceding discussion has traced the development of, and problems with, relative tense theories. Along with the hallmark reference point, such theories are also characterized by an eschewal of the category of aspect in their treatment of verbal forms. By contrast, approaches rooted in the Stoic-Varronian tense-aspect model define verbs in terms of two parameters—tense and aspect. The growth of this type of approach is discussed below following an introductory discussion of aspect.

Aspect is a more abstruse category than tense in part because it a complex idea that is often intertwined with other grammatical markings. John Lyons has remarked that no other linguistic concept proves the French structuralist dictum Tout se tient (‘Everything hangs together’) more than aspect (1977:714). Problems understanding the concept are especially acute in Western grammatical tradition, where aspect is a relatively new linguistic term. Aspect also presents numerous terminological problems. Two or three different types of aspect are recognized by linguists, yet there is no agreement on the terminology used to differentiate these types. In view

\footnote{According to Binnick, the term aspect entered Western European linguistics in the early part of the nineteenth century, but only became part of the “linguistic tradition” at the end of that century (1991:135–36); the Oxford English Dictionary (2d ed., s.v. “aspect”) dates the entrance of the term into English to 1853.}
of these problems, the remainder of this section distinguishes and defines three types of aspect.

1.3.1 Viewpoint Aspect

The earliest conception of aspect as a verbal property is found in the Stoic-Varronian tense-aspect model (table 1.2), in which two aspects, complete and incomplete, intersect with three times or tenses—past, present, and future. However, in modern discussions of aspect the terms complete(d) and incomplete(d) have been replaced by the labels perfective and imperfective, which derive from Slavic grammar (Oxford English Dictionary, 2d ed., s.v. “aspect”). This terminological shift is welcome since the labels of complete and incomplete imply ontological nuances that can cause confusion. In particular, if an event lies wholly in the past with respect to a point of evaluation, it is often understood as complete or completed, yet this is not how the Stoic-Varronian model conceived of these since both aspects are represented in all three times.\textsuperscript{13}

Perfective and imperfective aspects are understood as viewpoints from which a situation may be evaluated regardless of its location in time (tense) or its length of duration: “Aspects are different ways of viewing the internal temporal constituency of a situation” (Comrie 1976:3, emphasis mine; see also Bache 1985:5–6). Thus, this type of aspect, according to modern linguistic understanding, refers to a particular view of a situation, not the ontological status of the situation itself. This distinction between viewpoint and ontology can be illustrated with the examples in [1.6],\textsuperscript{14} in which the particular aspectual viewpoint chosen is unaffected by the

\textsuperscript{13}At least according to the interpretation followed here; on the relative tense interpretation of the Stoic-Varronian verb model, in which completed events lie mostly in the past and incompletely completed events lie mostly in the future, see Binnick (1991:24).

\textsuperscript{14}Example [1.6] contrasts English Simple Past and Past Progressive in terms of perfective and imperfective aspect, respectively. There are opposing opinions, however, as to whether any English verbs are marked for
duration of the situation itself—both perfective and imperfective viewpoints are acceptable.

[1.6]  
   a. Kathy lived (= PFV) in Indonesia for 12 years.  
      Kathy was living (= IPFV) in Indonesia for 12 years.  
   b. Colin just stared (= PFV) at me for a second and then began to say something.  
      Colin was just staring (= IPFV) at me for a second and then began to say something.

A helpful metaphor for understanding perfective and imperfective viewpoints is camera lenses. The imperfective is like the viewpoint through a telephoto lens, giving a close-up view of the segments of time over which the situation progresses, yet because of its narrow scope, the initial and final endpoints of the situation are beyond its purview. By contrast, the perfective viewpoint is like a wide angle lens, presenting the entirety of the situation in its scope but not presenting a detailed enough view to show the segments of time over which the situation progresses (see Comrie 1976:4; Chung and Timberlake 1985:213). This metaphor explains why the imperfective view is used in subordinate clauses in which the progression of the event is interrupted by another, as illustrated in [1.7].

---

15This description of the distinguishing characteristics of the perfective and imperfective viewpoints—scope and distance—is simplified, as an introduction to the concept. A more precise and formal description of each viewpoint is given in chapter three (3.1.3).
While Rob **read/was reading** his book, Rachel walked in.

While some linguists reserve the unmodified term *aspect* (or *Aspekt*) for this opposition (so Bache 1995), here it is labeled *viewpoint aspect* in order to distinguish it from the other aspectual types discussed below. The *perfect* (e.g., *Jared has read ten books*) and *progressive* (e.g., *Colin is reading now*) are often categorized as viewpoint aspects alongside the predominant *perfective : imperfective* opposition. A full analysis of all four viewpoint aspects is given in chapter three (3.1.3).

### 1.3.2 Situation Aspect

A second type of aspect also has its roots in the grammatical traditions of ancient Greece. In particular, it derives from a passage in Aristotle’s *Metaphysics*:

> Since of the actions which have a limit none is an end but all are relative to the end, e.g. the removing of fat, or fat-removal, and the bodily parts themselves when one is making them thin are in movement in this way (i.e. without being already that at which the movement aims), this is not an action or at least not a complete one (for it is not an end); but that movement in which the end is present is an action. E.g. at the same time we are seeing and have seen, are understanding and have understood, are thinking and have thought (while it is not true that at the same time we are learning and have learnt, or are being cured and have been cured). At the same time we are living well and have lived well, and are happy and have been happy. If not, the process would have had some time to cease, as the process of making thin ceases: but, as things are, it does not cease; we are living and have lived. Of these processes, then, we must call the one set movements [*kinēseis*], and the other actualities [*energeia*]. For every movement is incomplete—making thin, learning, walking, building; these are movements, and incomplete at that. For it is not true that at the same time a thing is walking and has walked, or is building and has built, or is coming to be and has come to be, or is being moved and has been moved, but what is being moved is different from what has been moved, and what is moving from what has moved. But it is the same thing that at the same time has seen and is seeing, or is thinking and has thought. The latter sort of process, then, I call an actuality and the former a movement. (9.6.1048b.18–34)

This Aristotelian distinction between *kinēsis* and *energeia* has served as the basis of Zeno Vendler’s influential taxonomy of situations types: states, activities, achievements, and
accomplishments (1967:97). Based on other statements by Aristotle, Binnick concludes that three of Vendler’s situation types were distinguished by Aristotle, as shown in table 1.9.

Table 1.9. Correlations between Aristotle’s and Zeno Vendler’s aspectual categories (adapted from Binnick 1991:172).

<table>
<thead>
<tr>
<th>States</th>
<th>Activities</th>
<th>Accomplishments</th>
<th>Achievements</th>
</tr>
</thead>
<tbody>
<tr>
<td>desire</td>
<td>run</td>
<td>run a mile</td>
<td>recognize</td>
</tr>
<tr>
<td>want</td>
<td>walk</td>
<td>walk to school</td>
<td>find</td>
</tr>
<tr>
<td>love</td>
<td>swim</td>
<td>paint a picture</td>
<td>win the race</td>
</tr>
<tr>
<td>hate</td>
<td>push a cart</td>
<td>grow up</td>
<td>stop/start/resume</td>
</tr>
<tr>
<td>know/believe</td>
<td>drive a car</td>
<td>recover from an illness</td>
<td>be born/die</td>
</tr>
</tbody>
</table>

Vendler’s four situation types with his English examples are given in table 1.10.

Table 1.10. Zeno Vendler’s aspectual categories with English examples (adapted from 1967:97).

Linguists have developed a variety of schemata by which to represent these four situation types (see Binnick 1991:179–83). Henk Verkuyl lists four predominant types of schemata, illustrated in figure 1.3: cross-classification (i.e., feature chart), strict hierarchy, partial ordering (i.e., tree diagram), and hinge ordering (1972:41).

Figure 1.3. Varieties of models of situational types.

a. Cross-Classification (feature chart) (adapted from C. Smith 1991:30)

<table>
<thead>
<tr>
<th>Situations</th>
<th>Static</th>
<th>Durative</th>
<th>Telic</th>
</tr>
</thead>
<tbody>
<tr>
<td>States</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Activity</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Accomplishment</td>
<td>-</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Semelfactive</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Achievement</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
</tbody>
</table>

---

16 These situation types are sometimes referred to as the Vendler-Kenny taxonomy since Anthony Kenny independently developed a similar taxonomy. However, Kenny preserved the unity of Aristotle’s kinēsis category, referring to it as “performances” (1963).

17 Aristotle distinguishes between echein and energein in De Anima 417a.

18 Aristotle distinguishes between praksis and poiēsis in Nicomachean Ethics 1140a.
b. *Strict Hierarchy* (adapted from Hatav 1997:43)

\[
\begin{array}{c}
\text{Situation} \\
\downarrow \\
\text{Event} & \text{Distributive} \\
\downarrow \\
\text{Accomplishment} & \text{Achievement} & \text{State} & \text{Activity}
\end{array}
\]


c. *Partial Ordering (tree diagram)* (adapted from Moulé 1981:201)

\[
\begin{align*}
\text{situations} \\
\downarrow \\
\text{states} & \text{occurrences} \\
\downarrow \\
\text{processes} & \text{events} \\
\downarrow \\
\text{developments} & \text{punctual occurrences}
\end{align*}
\]


d. *Hinge Ordering* (adapted from Verkuyl 1972:42, 91)

<table>
<thead>
<tr>
<th>STATE</th>
<th>PROCESS</th>
<th>EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>state of no change</td>
<td>state of change</td>
<td>change of state</td>
</tr>
</tbody>
</table>

Except for Verkuyl’s (fig. 1.3d), which is based on dynamicity and the concept of progress, the schemata are based on three criteria: dynamicity (dynamic vs. stative), durativity (durative vs. punctiliar), and telicity (telic vs. atelic).\(^\text{19}\) *Dynamic* events, in contrast to stative ones, are characterized by change, progress, or stages (see C. Smith 1991:28–29; Olsen 1997:35; Verkuyl 1993:15). *Durative* events, in contrast to punctiliar ones, are relatively protracted. Finally, *telic* events, in contrast to atelic events, have an inherent endpoint (Depraetere 1995:2–3). Some

\(^\text{19}\)See Chung and Timberlake (1985:214–18) for a two-criteria approach—dynamicity and telicity.
schemata, such as Carlota Smith’s (fig. 1.3a), include a fifth category, *semelfactive* (from Latin *semel* ‘once’), to describe actions whose occurrence is instantaneous, for example, *knock* or *blink*.

Linguistic “compatibility” tests have been developed to distinguish the four main situation types, the most common of which are listed with examples in [1.8].

[1.8]  

a. *States* versus *Non-states*: stative verbs are usually incompatible with progressive tenses or imperatives.  
e.g.,  
**Rob is knowing (STA) Hebrew.**  
?Know (STA) Hebrew!

b. *Activities* versus *Accomplishments*: accomplishment verbs receive temporal prepositional phrases with *in*, but only marginally phrases with *for*; activities, on the other hand, are compatible with temporal prepositional phrases with *for*, but are incompatible with *in* phrases.  
e.g.,  
Kathy cooked (ACC) dinner in an hour. versus ??Kathy cooked (ACC) dinner for an hour.  
**Rachel walked (ACT) in an hour. versus Rachel walked (ACT) for an hour.**

c. *Accomplishments* versus *Achievements*: achievement verbs are even more incompatible with temporal prepositional phrases with *for* than accomplishment verbs; achievement verbs are also incompatible with statements of completion.  
e.g.,  
**Jared recognized (ACH) his friend for a few minutes.**  
**Jared finished recognizing (ACH) his friend.**

Aside from the fact that the validity of many of these types of tests has been called into question (e.g., Olsen 1997:36–37), they highlight the central issue in defining this type of aspect: are these categories (i.e., state, activity, accomplishment, and achievement) lexical semantic categories or ontological ones? Another way to pose the question is, when a sentence is described as an accomplishment, is that feature a semantic property of the verb itself or an ontological property of the predication as a whole, based on the principle of compositionality (e.g., Nils Thelin critiques Vendler’s taxonomy: “these classes rather represent non-perspectivized i.e., non-aspectualized types of idealized *situations* dictated by reality, or by their corresponding linguistic expressions in terms of generalized verb-semantic and semantico-syntactic (deep case) patterns”

---

If it is argued that these are semantic categories inherent in the verb itself, then one must explain why something as minor as changing a noun from singular to plural can alter this property (e.g., *Rob is making a chair* is an accomplishment, but *Rob is making chairs* is an activity). However, if the opposite view is taken, then one must still account for the compositional contribution of the verbal semantics to the ontology of the situation. Wherever the locus of this type of aspect is, its determination of situation types makes *situation aspect* an appropriate label.

### 1.3.3 Phasal Aspect

A third type of aspect was first recognized by grammars of Russian, in which it is regularly marked by verbal affixes:

The existence of perfectives with a variety of procedural nuances, along with imperfectives specifically expressing habitual repetition (iteratives and frequentives) at one time led linguists to conclude that in Russian there were not two aspects, but several, e.g., кричать *imperfective*, крикать *iterative*, покричать *perfective*, крикнуть *semelfactives*. The iteratives and semelfactives were considered to be either separate aspects or ‘sub-aspects’. With the recognition of procedurals (*Aktionsarten*) as a category distinct from aspect, the idea of multiplicity of aspects can receive no serious support today. (Forsyth 1970:29–30)

Most languages, however, are not as uniform as Russian in how they represent this type of aspect. In many languages, as in English, phasal aspect is expressed periphrastically. A taxonomy of the most common types of phasal aspect, with English examples, is presented in [1.9].

[1.9]  
- **Focus on initial phase:**
  - *Inchoative*: beginning of a state, e.g., *Tage became sick*.
  - *Inceptive*: beginning of an event, e.g., *Colin began writing*.

---

²¹For other taxonomies see Binnick (1991:202–7).
b. Focus on final phase:
   Cessative: end of an event, e.g., Colin stopped writing.
   Completive: completion of an event, e.g., Colin finished writing.

c. Alteration of middle phase(s):
   Iterative: successive repetition of an event, e.g., Jared knocked for five minutes.
   Habitual: regular pattern of repetition of an event, e.g., Jared always walks to school.
   Continuative: continuation of an event, e.g., Jared continued to knock.
   Resumptive: resumption of an event, e.g., Evan resumed crying.

These aspectual expressions are treated by some linguists as subcategories of viewpoint aspect (Comrie 1976:25; Dahl 1994:243; Olsen 1997:106–9), by others as subcategories of situation aspect (Bache 1995:237; C. Smith 1991:75–90), and by still others as meanings arising from the combination of viewpoint and situation aspect (Nordlander 1997:102, 138; C. Smith 1991:85). This last approach most strongly denies that these expressions comprise an independent category of aspect. For example, an iterative event such as Jared was knocking can be analyzed according to this last view as the result of an imperfective viewpoint applied to a semelfactive (instantaneous) situation (C. Smith 1991:85). In addition, some of these expressions appear to be not semantic but pragmatic, derived from the context and real-world knowledge, as in Carlota Smith’s example, “They ate dinner at noon” (i.e., they began eating dinner at noon) (1991:78). However, such explanations cannot account for every type of expression listed above. In addition, these expressions may use verbs with a variety of situation aspects (e.g., Jared began talking [ACT], Colin finished painting a picture [ACC]) and viewpoint aspects (e.g., Tage began to play [PFV], Evan was beginning to cry [IPFV]). This interaction with the other types of aspect supports the conclusion that these expressions comprise an independent aspectual type. The issue of the independence of this aspectual category is discussed in 3.1.4.

Because of the variety of ways these aspectual expressions have been treated by linguists, this category presents greater terminological problems than situation and viewpoint aspect. While
The German term *Aktionsart* (‘type of action’) was originally used to refer to these types of aspectual expressions (see Forsyth’s quote above), the term has come to be more commonly applied to situation aspect. Arguments over the independence of this aspectual category aside, it is referred to as *phasal aspect* in the following discussions. In conclusion, a comparison of the labels used here for these three types of aspect and those given by other linguists are compared in Table 1.11.

Table 1.11. Comparison of aspect labels.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Viewpoint</td>
<td>Aspect</td>
<td>Grammatical</td>
<td>Grammatical</td>
<td>Viewpoint</td>
</tr>
<tr>
<td>Situation</td>
<td>Action</td>
<td>Lexical</td>
<td>Lexical</td>
<td>Situation</td>
</tr>
<tr>
<td>Phasal</td>
<td>Action</td>
<td>Derivational</td>
<td>Grammatical</td>
<td>Situation</td>
</tr>
</tbody>
</table>

### 1.4 Tense-Aspect Revisions of the R-point

Having introduced and defined viewpoint, situation, and phasal aspects, this section picks up where 1.2 left off—discussing revisions of the R-point theory. As mentioned above (1.2.4), Bull and Declerk interpreted the reference point as a viewpoint from which an event is temporally evaluated. In 1.3.1 viewpoint aspect was discussed as presenting a particular view of an event. Some linguists have noticed the similarity between the viewpoint interpretation of the reference point and perfective and imperfective aspect as viewpoints on a situation and have reinterpreted the R-E relationship as signifying viewpoint aspect. The theories discussed in this section,

---

22The term *Aktionsart* (‘kind of action’) has been the cause of much confusion (see Bache 1982 for discussion). Lyons remarks that the relationship between *Aktionsart* and aspect (or German *Aspekt*) “rests upon one or the other of two more general distinctions: (i) the distinction between grammaticalization and lexicalization; and (ii) the distinction, within morphology, between inflexion and derivation. The fact that neither of these two distinctions is itself clearcut, coupled with the further fact that, in so far as they are partially, but not wholly, coincident, some scholars operate with the one and some scholars with the other, has been responsible for a good deal of confusion in the use of the term ‘Aktionsart’” (1977:706; see also Comrie 1976:n.4). This confusion may be responsible for the exceptionally broad use of the term by some Hebraists in reference to “causation, voice, transitivity, reflexivity, repetition, and similar factors” (Waltke and O’Connor 1990:689; see also 350).
despite other differences, have in common a viewpoint aspectual interpretation of the R-E relationship. Hence, they transform the R-point tense theory into varieties of tense-aspect theories.

1.4.1 Marion R. Johnson

Marion Johnson’s 1981 article, based on her earlier dissertation (1977), presents one of the earliest tense-aspect reinterpretations of the reference point as a part of her study of the verb in Kikuyu, a Bantu language. Her model consists of a series of interlocking binary relationships between E, R, and S, illustrated in figure 1.4: the relationship between E and R determines aspect; that between R and S tense, and that between S and E (existential) status—i.e., whether the event lies ontologically past, present, or future with respect to S.

**Figure 1.4.** Marion Johnson’s schema of the relationships between E, R, and S (adapted from 1981:149).

While Johnson’s treatment of S, R, and E with respect to tense and aspect is typical of the tense-aspect revisions of the R-point theory, her inclusion of an S-E relationship in her model is unique. Her motivation for this inclusion is the morphologically marked distinction in Kikuyu between “imminent action” and “manifest action” (1981:161–62). While Johnson’s treatment of E and S addresses a neglected area in relative tense theories, she does not present an argument that this ontological status interpretation of E-S is universally valid.

Johnson’s model is also innovative with respect to event structure. First, an event is defined
“as occurring at an interval of time” rather than a moment of time (i.e., a point) as earlier theories defined it (1981:148). However, Johnson is inconsistent in her application of intervals in her model, treating E as an interval, S as a moment, and R as both a moment and an interval:

Given that S is a moment of time and E is an interval of time, how should we view R, the reference time? In order to allow for the possibility that R is identified with E, we take R also to be an interval of time. However, we have characterized R intuitively as a point of reference that functions for the speaker as an alternative to the time of speaking, in the sense of being the time of some situation other than his own that the speaker might want to describe. Hence, it seems reasonable to view R as a moment of time whenever the semantics of an utterance does not explicitly require us to do otherwise. (1981:150)

Second, Johnson characterizes events as comprised of “a series of temporal ‘phases,’” as illustrated in figure 1.5: the development phase is the time prior to the end of the event; the event phase is the interval of the event itself, inclusive of its initial and final endpoints; and the result phase is the time following the end of the event (1981:152).

Johnson uses this event model in her analysis of three aspectual values of the Kikuyu verb: Completive (= perfective), Imperfect (= imperfective), and Perfect. Each of these values is distinct from the others by the correspondence of their range for R with one of the phases of the event, as illustrated graphically and with examples in figure 1.6: the Completive has an R that is coterminus with the event phase; the range of R for the Imperfect corresponds to the development

---

23 Johnson’s theory of intervals derives from Michael Bennett and Barbara Partee’s seminal study, which states that the truth value of an event is defined relative to an interval of time rather than a moment of time (1978). Since Bennett and Partee’s work, the use of intervals as opposed to moments of time in analyzing events and their truth values has been adopted throughout linguistic discussion. According to the interval view, moments of time are primitives by which an interval is measured as consisting of an ordered set of moments (Cann 1993:233–35).
phase; and, similarly, the range of $R$ for the Perfect corresponds to the result phase.

**Figure 1.6.** Marion Johnson’s model of Kikuyu aspectual types (adapted from 1981:154).

a. R, E for completive aspect

Range of R for
imperfect aspect

Range of R for
perfect aspect

b. Completie: R, E
   Imperfect: R $<$ E (partially)
   Perfect: E $<$ R

*E.g.,* he built a house

*he was building a house* (time prior to completion)

*he has built a house* (time after house was completed)

Hence, Johnson’s analysis of Compleitive aspect is similar to the definition of perfective aspect given in 1.3.1. By contrast, her definition of the Imperfect is different that the analysis of imperfective in 1.3.1 in that R’s range may extend to prior to the initial point of the event phrase; all that is necessary is that at least one moment of time in the development phase follow R. Finally, Johnson’s analysis of the Kikuyu Perfect is similar to the analysis of perfect aspect in chapter three (3.1.3).

### 1.4.2 Wolfgang Klein

Johnson’s dilemma of how to provide a consistent interval analysis of R is answered in Wolfgang Klein’s theory of tense and aspect: the reference time, called “topic time” by Klein, is that interval of “time for which the speaker wants to make an assertion” (1994:24). Thus, viewpoint aspects are determined by the degree and nature of overlap between the interval of R and the interval of E, as illustrated in table 1.12 ([brackets] = R, I . . . F = E): R can be included in E (table 1.12a); R can partially overlap E at the beginning, end, or both (i.e., E is included in R) (table 1.12b); or R can wholly precede or follow E (table 1.12c).
Unfortunately, Klein’s taxonomy suffers from the same sort of over-richness that plagued the relative tense theories (1.2): it is not clear how an R that overlaps with “pre-time” or “post-time” of E might be expressed (table 1.12b); nor is it certain that the expression of R as wholly before E is properly a viewpoint aspect (table 1.12c).

Klein takes situation aspect into account in his theory, analyzing the interaction of viewpoint aspect with 0-state, 1-state, and 2-state situations (see Verkuyl’s model in figure 1.3d). Klein defines these situation aspects in terms of “topic time (= R) contrast,” illustrated in [1.10]: (a) with 0-state situations there is no topic time contrast, since there is no R (topic time) that exists outside of the situation (E); (b) with 1-state situations there is an “external” topic time contrast, since another R may lie outside the situation (E); (c) finally, with 2-state situations there is an “external” topic time contrast as well as an internal contrast between the “source state” and the “target state” of the situation (E).

[1.10] a. The book is in Russian (0-state event, no topic time contrast, R is always in E)
   b. The book is on the table (1-state event, R contrasts with an R when the book is not on the table)
   c. He put the book on the table (2-state event, R contrasts with another R, as in b., and the source state [book not on the table] contrasts with the target state [book on the table] in the same R)

Östen Dahl criticizes Klein’s characterization of 2-state events as consisting of a source state and a target state, observing that the more conventional view of 2-state events is that they consist only of a transition from one state to the other, not the initial (source) and resultant (target) states themselves. Citing the example Burton left Mecca, Dahl argues that “it is hard to see how Burton
may be leaving Mecca after he has crossed the line” (1997:420).

Klein observes that with 2-state events, English focuses on the overlap of R with the source state as opposed to the target state, overlap with which is presumably a theoretical possibility (1994:105). Thus, as shown in table 1.13, R may overlap with the “source state” (SS) of 2-state events (marked by ‘ ; + is “target state”) in the same way as it overlaps with E in the case of 1-state events, as illustrated above in table 1.12.

| a. | --[---]------ | R ≺ SS of E (R ≺ S) | Rob was closing (= IPFV) the door. |
| b. | --[---]+++ | R ∩ SS of E (R ≺ S) | Rob closed (= PFV) the door. |
| c. | ---++++++ | SS of E ≺ R (S ⊆ R) | Rob has closed (PERF) the door. |
| [ ] | ---++++++ | R ≺ SS of E (R ≺ S) | Rob was about to close the door. |

Klein, like Johnson, analyzes tense as defined by the temporal ordering of R and S, but unlike Johnson he includes no place in his theory for an E-S relationship. Thus, Klein’s model features a two-way reference point relationship, as illustrated in figure 1.7: the R-E relationship determines aspect, and the R-S relationship determines tense.

Dahl criticizes Klein’s neglect of an E-S relationship, arguing that the sentences in [1.11] are evidence that the temporal ordering of E and S is partially determinative of tense choice (Dahl 1997:425).

[1.11] a. Today, my office hours are from ten to twelve.  
b. Today, my office hours were from ten to twelve.

Before twelve o’clock the statement in [1.11a] would be appropriate, but after that the statement in [1.11b] would be used; yet the reference time (or ‘topic time’), which is fixed by the adverb today, has not changed. The only thing that has changed is the temporal order of E and S: before twelve o’clock at least part of E lies after S; after twelve o’clock E lies wholly before S.
1.4.3 Mari Broman Olsen

Mari Olsen’s tense-aspect theory is superficially similar in certain respects to Johnson’s (1.4.1) and Klein’s (1.4.2). Like Johnson, Olsen has a multipart event model; however, Olsen’s model does not distinguish a preparatory phase, only a nucleus and coda (employing terminology from syllable phonology) (1997:52, 57n.33). Olsen’s configuration of the R, S, and E relationship may be schematized like Klein’s in figure 1.7. However, in contrast to Klein, Olsen’s configuration uses a contextually determined “deictic center” (C), whose default position is at S, instead of S itself for determining tense. Thus, while Olsen reinterprets the R-E relationship as viewpoint aspect, as the other models discussed here, she reintroduces the concept of relative tense by her introduction of C, which functions essentially as the reference time in R-point tense theories (see 1.2.2–3). Thus, Olsen’s treatment of tense is reminiscent of Declerk’s, as demonstrated in [1.12]: R₁ (ate) lies before C₁ (= S), but R₂ (‘cleaned’) lies before C₂ (= R₁).

[1.12] Before they ate (R₁ < C₁ = S) breakfast, Jared and Colin cleaned (R₂ < C₂ = R₁) their room.

An important innovation in Olsen’s theory is the use of monotonic privative oppositions in her analyses of tense, viewpoint aspect, and situation aspect.²⁴ In support of her feature charts for tense and viewpoint aspect, shown in tables 1.14–15, Olsen cites typological data from Dahl (1985:154–81) that show the variety of marking patterns languages may exhibit for tense and viewpoint aspect (1997:99–102; see Comrie 1985:50).

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²⁴Monotonic is used in mathematics to refer to the unidirectional relationship between members. Privative opposition stands in contrast with equipollent opposition and gradual opposition. All three concepts are derived from Prague School phonological theory (see Trubetzkoy 1958, English translation 1969). A gradual opposition is one in which members are contrasted on the basis of a scale (e.g., front vowels, which range along a scale of vowel height from high to low). A privative opposition is one in which the members are asymmetrical—one member is marked with a feature that the other lacks (e.g., [+feature A] and [−feature A]). An equipollent opposition is one in which the members are logically equivalent but have opposite values; they are marked by a binary +/− notation (e.g., [+feature A] and [−feature A]) (see Crystal 1991:124, 158, 277).
Pragmatic or Conversational Implicature derives from H. P. Grice’s theory about semantics and pragmatics in the use of natural language. The central premise of the theory is that conversation or discourse proceeds according to four principles that are subsumed under the central principle of cooperation—“make your contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged” (Grice 1975:45). When conversation does not proceed according to this principle, hearers still presume that they are being followed at some level, and thus draw implicational meanings from the conversation, termed ‘conversational implicatures’ (see Levinson 1983:chap. 4). Grice offers four linguistic tests for conversational implicature: (1) cancellability (or defeasibility), (2) non-detachability, (3) calculability, and (4) non-conventionality (1975:57–58; see also Levinson 1983:119).

More significant, however, is Olsen’s use of monotonic privative oppositions in her analysis of situation aspect. Olsen’s taxonomy of situation aspect in table 1.16 features of six situation types (“stage-level state” refers to states that have a natural endpoint such as be pregnant, which ends in birth [1997:48–50]) distinguished by the parameters of telicity, dynamicity, and durativity.

By using monotonic privative oppositions, Olsen distinguishes between semantic and pragmatic implicature. For instance, in example [1.13a], the atelic reading (activity) may be canceled by the addition of the phrase a mile, making the statement [+telic] (accomplishment).

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**Table 1.14.** Mari Olsen’s feature chart for tense (adapted from 1997:130).

<table>
<thead>
<tr>
<th>Privative tense features:</th>
<th>Past</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Past tense (R &lt; C)</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>b. Present tense (C, R)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Future tense (C &lt; R)</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>d. *Non-present tense (R ≠ C)</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

**Table 1.15.** Mari Olsen’s feature chart for viewpoint aspect (adapted from 1997:99).

<table>
<thead>
<tr>
<th>Imperfective</th>
<th>Perfective</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>+</td>
</tr>
<tr>
<td>c.</td>
<td>+</td>
</tr>
<tr>
<td>d.</td>
<td></td>
</tr>
</tbody>
</table>

**Table 1.16.** Mari Olsen’s feature chart for situation aspect (adapted from 1997:51).

<table>
<thead>
<tr>
<th>Aspeccial Class</th>
<th>Telic</th>
<th>Dynamic</th>
<th>Durative</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td></td>
<td>+</td>
<td></td>
<td>know, be, have</td>
</tr>
<tr>
<td>Activity</td>
<td>+</td>
<td>+</td>
<td></td>
<td>run, paint, sing</td>
</tr>
<tr>
<td>Accomplishment</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>destroy, create</td>
</tr>
<tr>
<td>Achievement</td>
<td>+</td>
<td>+</td>
<td></td>
<td>notice, win</td>
</tr>
<tr>
<td>Semelfactive</td>
<td>+</td>
<td></td>
<td></td>
<td>wink, tap, cough</td>
</tr>
<tr>
<td>Stage-level state</td>
<td>+</td>
<td></td>
<td>+</td>
<td>be pregnant</td>
</tr>
</tbody>
</table>

25Pragmatic or Conversational Implicature derives from H. P. Grice’s theory about semantics and pragmatics in the use of natural language. The central premise of the theory is that conversation or discourse proceeds according to four principles that are subsumed under the central principle of cooperation—“make your contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged” (Grice 1975:45). When conversation does not proceed according to this principle, hearers still presume that they are being followed at some level, and thus draw implicational meanings from the conversation, termed ‘conversational implicatures’ (see Levinson 1983:chap. 4). Grice offers four linguistic tests for conversational implicature: (1) cancellability (or defeasibility), (2) non-detachability, (3) calculability, and (4) non-conventionality (1975:57–58; see also Levinson 1983:119).
By contrast, the [+telic] reading cannot be canceled by the addition of a durational phrase, as seen in [1.13b]: the effect of the phrase *for a week* is iteration—Jared swam a mile multiple times during a week.

[1.13]

a. Jared swam (a mile). (unmarked for [+telic])
b. Jared swam a mile (for a week). (marked for [+telic])

The case of privatively marked [+durative] and [+dynamic] is analogous: events marked for either of these values cannot be canceled by implicature, whereas events unmarked for these values may nevertheless be interpreted as [+durative] or [+dynamic] by implicature (see further 3.1.2.1).

Olsen associates the three privative situational aspectual parameters with the two parts of her event model—the nucleus and the coda: [+dynamic] and [+durative] are associated with the nucleus of an event, and [+telic] with the coda (1997:51–52). Perfective and imperfective viewpoint aspects are distinguished by the location of the reference time’s intersection with the event: the reference time of the imperfective aspect intersects the event at the nucleus whereas reference time of the perfective aspect intersects the event at the coda, as in figure 1.8.

**Figure 1.8.** Mari Olsen’s formalized notation for viewpoint aspect (adapted from 1997:63).

a. *Imperfective aspect:* \([E \cap R] @ nucleus \)
\[\text{nucleus } \preceq \text{ coda}\]

\[\text{Time } \overset{R}{\longrightarrow} \]

b. *Perfective Aspect:* \([E \cap R] @ coda \)
\[\text{nucleus } \preceq \text{ coda}\]

\[\text{Time } \overset{\rightarrow}{\longrightarrow} R \]

Olsen unfortunately does not clarify whether the reference time is a point (as Reichenbach’s R-point; see 1.2.2) or an interval (as Klein’s “topic time”; see 1.4.2). In addition, Olsen’s analysis of perfective aspect as denoting an event “having reached an end” (1997:83) is particularly problematic since it confuses perfective with the concept of completed (see Comrie 1976:18).
1.4.4 Summary

The most significant contribution of the models surveyed here is their transformation of R-point tense theory into a tense-aspect theory. The idea that the reference point was the viewpoint from which an event would be temporally evaluated was posited by relative tense theories (i.e., Bull 1.2.3.2 and Declerk 1.2.3.4). The tense-aspect models saw a correlation between the reference point as the viewpoint for temporal evaluations and viewpoint aspect. Klein, in particular, clarified the reference point by defining it in terms of an interval instead of a point, and describing it as the “topic time”: that time for which a speaker makes an assertion.

The unique contribution of Johnson’s model is her inclusion of a relationship between E and S, which she labels “ontological status.” The relationship between E and S has been neglected by R-point tense theories, which have generally characterized the E-S relationship as always mediated by R (but cf. Comrie 1.2.3.3). The importance of the ontological status of an event with respect to the time of speaking—i.e., whether the event actually occurs before, overlapping with, or after the time of speaking—is discussed in chapter three (3.1.5).

Finally, Olsen presents two important innovations. First, by defining situation aspect using monotonic privative oppositions she is able to distinguish semantics from pragmatics in the interpretation of situation aspect. This approach to situation aspect is adopted and explored further in chapter three (3.1.2.1). Second, Olsen reintroduces the idea of relative tense in her tense-aspect model by the inclusion of a “deictic center,” a component that functions like the movable R-point in Declerk’s relative tense theory (1.2.3.4). Although the discussion in chapter three shows this deictic element to be extraneous, Olsen’s ideas lend themselves to refining the role of the reference time with respect to its role in defining tense (3.1.5).
1.5 Interaction between Categories of Tense and Aspect

The discussion of tense and aspect to this point has been narrowly focused on developments related to the R-point theory. However, more general data concerning these semantic categories are important in constructing a theory of TAM. In particular, these data consist of two types: the first is theoretical, concerning the interaction and compatibility of different tense and aspect categories; the second is empirical, deriving from typological studies, which provide numerous examples of how verbal systems are configured with respect to TAM.

1.5.1 Theoretical Contributions

Carl Bache presents a detailed theoretical and pre-theoretical discussion of tense, viewpoint aspect (which he labels “aspect”), and situation aspect (which he labels “action”) (1995:14). Bache treats tense as absolute, defined by the temporal relationship between the event time and the speech time (1995:257, 316) (fig. 1.9a). He identifies three varieties of viewpoint aspect: imperfective, which has an “internal situation focus” (i.e., it does not include the initial and final points of the situation); perfective, which has an “external situation focus” (i.e., it includes the initial and final points of the situation); and unmarked, which has a “neutral situation focus” (1995:277, 317) (fig. 1.9b). Bache’s tree-diagram of situation aspect, given in figure 1.9c, features different labels than Vendler’s (cf. fig. 1.3), but the issue is primarily terminological as seen in the correlation of Bache’s labels with the standard ones in table 1.17.

Typology has several senses: it can mean a taxonomy of structural types across languages; it can refer to a subdiscipline of linguistics that examines linguistic patterns that can only be discovered by cross-linguistic comparison; and, finally, it is used in the label functional-typological approach that is an inductive, empirical approach to language study, which stands in opposition to formal (structural) linguistics (Croft 1990:1–2).

a. **Metacategory of tense**
   
   +TEMPORAL
   
   past
   
   present
   
   future
   
   −TEMPORAL

b. **Metacategory of viewpoint aspect**
   
   +ASPECTUAL
   
   perfective
   
   −ASPECTUAL
   
   imperfective

c. **Metacategory of situation aspect**
   
   +ACTIONAL
   
   complex
   
   punctual
   
   telic
   
   directed
   
   self-contained
   
   −ACTIONAL
   
   simplex
   
   durative
   
   atelic

**Table 1.17.** A comparison of Bache’s aspektual categories with the standard (Vendlerian) categories.

<table>
<thead>
<tr>
<th>Bache’s Categories</th>
<th>Standard (Vendlerian) Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>−ACTIONAL</td>
<td>state</td>
</tr>
<tr>
<td>complex</td>
<td>repetition of a semelfactive</td>
</tr>
<tr>
<td>punctual</td>
<td>achievement</td>
</tr>
<tr>
<td>telic</td>
<td>accomplishment</td>
</tr>
<tr>
<td>directed</td>
<td>incomplete accomplishment</td>
</tr>
<tr>
<td>self-contained</td>
<td>activity</td>
</tr>
</tbody>
</table>

Bache’s main contribution to the discussion of tense and aspect is his examination of incompatibilities between categories of tense, viewpoint aspect, and situation aspect (1995:194–204, 313–19). Under each category in [1.14–16] are listed values that are incompatible (\&) followed by the default choice for the relevant value (\~{}). For example, in [1.14a] −ACTIONAL is incompatible with +ASPECTUAL, and therefore −ACTIONAL selects −ASPECTUAL by default.
[1.14] **Interaction of situation aspect and viewpoint aspect**

- a. –ACTIONAL & +ASPECTUAL; –ACTIONAL – ASPECTUAL
- b. complex & perfective; complex – imperfective
- c. directed & perfective; directed – imperfective
- d. punctual & imperfective; punctual – perfective
- e. telic & imperfective; telic – perfective

[1.15] **Interaction of tense and viewpoint aspect**

- present & perfective; present – imperfective

[1.16] **Interaction of situation aspect and tense**

- a. punctual & present; punctual – future, past
- b. telic & present; telic – future, past

The first category, [1.14], treats the interaction of situation and viewpoint aspects. [1.14a] states that stative verbs (–ACTIONAL) cannot receive viewpoint aspectual distinctions (+ASPECTUAL) because they lack dynamicity (see fig. 1.3a). This characteristic has been exploited as a linguistic test for statives—they are incompatible with progressive viewpoint aspect (e.g., **I am knowing**). However, C. Smith correctly points out that statives are generally incompatible with *progressive* aspect, not all viewpoint aspectual values (1991:112; see Bybee, Perkins, and Pagliuca 1994:131). She claims that the application of other viewpoint aspects (e.g., perfective and imperfective) to stative verbs is a “parameter” of languages (i.e., may vary from language to language) (1991:109). This claim is borne out by the typological data in Bybee, Perkins, and Pagliuca that show that perfective verbs in some languages are either incompatible with statives, or express a present state with statives (1994:92). Still more contradictory with Bache’s incompatibility guideline is Olsen’s privative analysis of statives (see 1.4.3). Since statives are unmarked for [+dynamic], they can be interpreted as dynamic based on implicature. Thus, she cites the example in [1.17], which shows the compatibility of English statives with progressives aspect (1997:36–37).

[1.17] Digory was disliking (PROG) his uncle more every minute (Lewis 1955:20).
Guidelines [1.14b–c] deal with the incompatibility between situation types that have distinctive internal structures and perfective aspect, which does not discern those internal structures. “Complex” situations (= repetition of a semelfactive like knock) default for imperfective aspect, because with perfective they are altered to “simplex” (i.e., a semelfactive). This guideline treats the phenomenon that C. Smith observes from the other direction: imperfective aspect applied to a semelfactive makes it a “multiple-event activity” (e.g., Colin was knocking) (1991:56).

Bache characterizes “directed” situations (e.g., building a house), defined as activities with a natural endpoint beyond the situation’s scope (see table 1.17), as incompatible with perfective aspect since the perfective’s scope includes the endpoints of an event. This guideline is idiosyncratic in as much as most taxonomies lack this category of incomplete accomplishment. The issue involved here has to do with the related concepts of (a)telicity and (un)boundedness: a directed situation is telic in that it has an inherent endpoint, and perfective aspect makes a situation bounded, which, in the case of a telic situation, binds the inherent endpoint within its scope (see 3.1.3.2).

Finally, the guidelines in [1.14d–e] state that situations that are [+telic] (i.e., punctual = achievement, telic = accomplishment) (see fig. 1.3a; table 1.17) are incompatible with imperfective aspect because they lack any internal structure for the imperfective aspect to discern. In the case of achievements, the imperfective focuses on the pre-time of the event (e.g., he was dying) (see C. Smith 1991:114); by contrast, imperfective aspect with accomplishments expresses a “directed” event—i.e., an accomplishment that has not yet reached its inherent endpoint (e.g., he was making a chair). Although the interaction of imperfective with achievements and
accomplishments differs, Bache may have been led to group them together because the imperfective paradox applies likewise to both: the progressive expressions (= imperfective) *he was dying* and *he was making a chair*, do not entail their perfective counterparts *he died* and *he made a chair* as atelic situations do (e.g., *he is walking* entails *he walked*) (see Olsen 1997:77). This paradox is related to the subinterval property, discussed in chapter three (3.1.2.2).

The only incompatibility Bache discerns between viewpoint aspect and tense is given in [1.15]: present tense is incompatible with perfective aspect since the perfective requires “temporal distance” from an event in order to apply its wide scope. If perfective is applied to present tense the situation is often interpreted as a gnomic (omnitemporal) or habitual statement (e.g., *Jared helps around the house*) (1995:289; Bhat 1999:17; C. Smith 1991:153).

Finally in [1.16], Bache observes that [+telic] situations (punctual = achievement, telic = accomplishment) are incompatible with present tense because the punctiliar character of these types is difficult to combine with the inherent durativity of present tense. This guideline is stronger than the one discussed above between imperfective aspect and [+telic] situations; combinations of [+telic], perfective aspect, and present tense are characteristic only of “reportative speech” (e.g., *As the runner broke the tape the announcer shouted, “Carl Lewis wins!”*) (C. Smith 1991:153).

Bache’s discussion highlights several important issues with respect to the interaction of tense and aspect. However, his discussion is confusing in that he does not distinguish combinations that are truly incompatible (i.e., do not occur for semantic reasons) and those that yield atypical interpretations. For example, perfective aspect applied to stative predicates is strictly incompatible in some languages (Comrie 1976:50), but in others, such as Biblical Hebrew, it
applies atypically, expressing by default a present rather than a past state (see Bybee, Perkins, and Pagliuca 1994:92). In some cases the choice between an incompatible analysis or atypical analysis is uncertain. For instance, perfectivity and present tense usually combine atypically, expressing gnomonic or habitual events; however, one may debate whether their combination is simply atypical or whether perfectivity is actually cancelled when combined with present tense, thus making the two categories strictly incompatible. In order to clarify the situation of incompatible versus atypical combinations, and to summarize the preceding discussion, the chart in [1.18] lists the relevant guidelines in terms of Vendlerian situation types.

\[1.18\]

a. Interaction of viewpoint aspect and situation aspect
   1) perfective *may* & stative or perfective & stative = present state
   2) imperfective & semelfactive = iterative event
   3) imperfective & achievement/accomplishment [+telic] = imperfective paradox

b. Interaction between viewpoint aspect and tense
   perfective & present = gnomonic or habitual event

c. Interaction between situation aspect and tense
   achievements/accomplishment [+telic] & present, perfective = reportive speech

1.5.2 Empirical Contributions

Empirical data most directly address the question of what is a possible TAM system. There are several important typological studies on verbal systems, the pertinent conclusions from which are outlined below.

1.5.2.1 Östen Dahl

The first study is Östen Dahl’s survey of tense and aspect in sixty-four natural languages
Dahl’s aim is to distinguish categories of tense and aspect by determining their “foci or prototypical uses” (1985:33). He qualifies the results of his study:

The search for cross-linguistic generalizations is often seen as a quest for ‘language universals’, i.e. properties that are common to all human languages. In actual practice, it is quite seldom that absolute, non-definitional universals are identified in data-oriented work—properties that can truly be said to be non-vacuously manifested in all human languages tend to be of a rather abstract character and often only extremely indirectly testable (in the best case!). More commonly, the universals found by typologically oriented linguists are of a weaker kind—implicational and statistical. The claims I want to make on the basis of the investigation reported here are no exception in this regard. I will not claim that all languages use the same TMA [tense-mood-aspect] categories but only that the overwhelming majority of all categories found in the TMA systems of the world’s languages are chosen from a restricted set of category types. (1985:31)

Dahl’s most significant conclusion is his model of the statistically dominant tense-aspect configuration in his data, given in figure 1.10.

![Figure 1.10](image)

In this model the perfective : imperfective distinction is most basic, the former typically implying past tense (Dahl treats past tense as a “secondary feature” of perfective aspect [1985:79]). At the second level of the model, forms marked for imperfective aspect may also have a morphologically marked past and a non-past tense distinction; most commonly this subdivision is manifest in a past-imperfective marked verb alongside a general imperfective (1985:83). Dahl cites the verbal system of Classical Arabic as illustrative of this model. Classical Arabic has a perfective verb typically restricted to past time, a general imperfective for non-past, and a past tense restricted to the imperfective, as shown in [1.19] (1985:83).

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27A listing of the languages and discussion of his method for data collection and evaluation using a questionnaire is discussed in his second chapter (he includes a copy of the questionnaire in an appendix).
Grammaticalization, in the narrow sense, is a branch of linguistic inquiry interested in the universal processes by which lexical items become grammatical or grammatical items become more grammatical (Hopper and Traugott 1993:1–2). Although grammaticalization is an inherently diachronic process, it has been examined from diachronic (historical) and a synchronic (syntactic and discourse-pragmatic) perspectives. Bybee, Perkins, and Pagliuca take a historical perspective (see 3.2 for a detailed discussion of grammaticalization).

On the basis of their combined typological data, Joan Bybee and Dahl claim that this tense-aspect configuration “seems to occur in about every second language in the world” (1989:83).

1.5.2.2 Joan Bybee, Revere Perkins, and William Pagliuca

The second empirical study is the grammaticalization typological study of TAM by Joan Bybee, Revere Perkins, and William Pagliuca (1994), which is based on data from grammars rather than native speakers (as Dahl’s). Bybee, Perkins, and Pagliuca’s central claim is that universal paths of development (i.e., grammaticalization) of TAM forms can be determined within several broad semantic domains (1994:15–16). The semantic domains they treat include “Anterior, Perfective, and Related Senses,” “Progressive, Imperfective, Present, and Related Senses,” and “Future” (1994:chap. 3, 5, 7; they also treat mood and modality in chap. 6). The main conclusions with regard to universal paths in each of these domains is discussed here.

For anterior, perfective, and simple past forms, Bybee, Perkins, and Pagliuca propose the universal path of development in figure 1.11, “hypothesized on the basis of documented changes occurring primarily in languages outside our sample, as well as from inferences based on the distribution of meaning components in the languages of our sample” (1994:104).

| [1.19] | Perfective: kataba ‘he wrote’ |
| Imperfective: yaktubu ‘he is writing’ |
| Past Imperfective: kāna yaktubu ‘he was writing’ |
Figure 1.11. Grammaticalization paths for perfective/simple past (adapted from Bybee, Perkins, and Pagliuca 1994:105).

According to this model, resultatives and completives are the two main sources for forms that develop via perfect, which they label “anterior,” into either perfectives or simple pasts. This model confirms the close relationship between past tense and perfective aspect observed by Dahl (1985:79; see Bybee, Perkins, and Pagliuca 1994:83), and conversely, the incompatibility of perfective and present tense argued by Bache (1995:194, 205; see Bybee, Perkins, and Pagliuca 1994:126). However, they augment Dahl’s observation on the close relationship between perfective and past by pointing out distinguishing features between forms with these two meanings: (1) a perfective appears to develop only in opposition to an overt imperfective, whereas a past tense can arise independently; (2) while perfective is sometimes zero-marked, past is not; (3) perfectives either do not combine with stative predicates or else signals a present state when combined with them, whereas pasts signal a past state when combined with stative verbs; (4) while a perfective may be used to express a future time event, a past cannot be so used (1994:91–95).

Within the domain of progressive, imperfective, and present, Bybee, Perkins, and Pagliuca hypothesize that progressives are the major source of imperfective/present forms based on (1) the fact that the former is more specific and the latter more general (see 3.2), (2) historical data for such a development in Turkic, Dravidian, and Celtic, (3) data in which forms appear as

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29The development from resultative to perfect is illustrated by a comparison of King James’ English with Present Day English: *the time is not come* (KJV); *the time has not yet come* (NRSV) (Hag 1.2).
intermediary between these two poles, and (4) the fact that forms exhibit the same lexical sources (1994:127–29). Bybee, Perkins, and Pagliuca understand imperfective and present to be similarly closely related as perfective and simple past are: on the one hand, “an imperfective restricted to present time is simply a present, since a present situation cannot be perfective”; on the other hand, the present is not a tense, but a form that includes “various types of imperfective situations with the moment of speech as the reference point,” such as gnomic or habitual (1994:126).

Finally, within the domain of future, Bybee, Perkins, and Pagliuca identify agent-oriented modalities as a main source for future forms, as shown in figure 1.12.

Alongside this main source for future expressions, Bybee, Perkins, and Pagliuca identify “aspectual futures,” grams, for which a “future [value] arises as a contextually determined use, and not, as is the case with primary futures, as an evolutionary endpoint in the unfolding development of originally lexical material” (1994:275). In particular, “the most usual case is one in which a general present imperfective can also be used for future time reference in a future context” (1994:275). Altogether, their data show four imperfectives used for general future expression and two perfectives with an “immediate future” meaning (1994:275–78).

1.5.2.3 D. N. S. Bhat

The third study surveyed here is D. N. S. Bhat’s typological classification of languages based on which category is most prominent—tense, aspect, or mood (1999). He contrasts his
“differentiating” approach from the “universalistic” approaches of Dahl (1985) and Bybee, Perkins, and Pagliuca (1994): “Languages manifest an enormous amount of variation in their encoding and use of these verbal categories; a Universalistic approach would try to find common elements and tendencies that occur at the base of these variations. . . . A Differentiating approach, on the other hand, would try to find a basis for the variations [in natural language] by establishing idealized language types such that sets of correlatable distinctions can be associated with each language type. Individual languages can then be assigned to one or the other of these idealized language types” (1999:6).

Bhat categorizes a diverse group of languages (see 1999:91) under three “idealized language types”—tense-prominent, aspect-prominent, and mood-prominent. He uses four criteria to determine which category is most prominent: grammaticalization (how grammaticalized is the category?), obligatoriness (is the marking obligatory throughout the system?), systematicity (does the marking create a complete paradigm?), and pervasiveness (does the category appear as a feature of other portions of the grammar?). The grammaticalization and pervasiveness criteria are the most important since obligatoriness and systematicity are often concomitant with grammaticalization (1999:96).

Particularly relevant to the present study are several correlations Bhat makes between tense-, aspect-, or mood-prominent languages and other linguistic tendencies. First, a language’s prominent value tends to be preserved in non-finite constructions, such as conditional clauses. Bhat cites examples in which the verb in the conditional clause is marked for whichever category is prominent in the finite verbal paradigm (1999:144–45). Second, the former member of each oppositional pair—past : non-past, perfective : imperfective, or realis : irrealis—functions as the
verb for foreground events (see 1.6) (1999:179–80). Third, he finds that tense-prominent languages have a dearth of verbal adjectives and stative verbs (1999:149–52). Fourth, he observes that the perfect gets treated as tense or aspect based on which category is prominent in the language (1999:170–72). Similarly, Bhat hypothesizes concerning Bybee, Perkins, and Pagliuca’s paths of development that the determining factor whether a perfect develops into a perfective or past (see fig. 1.11) and whether a progressive develops into an imperfective or present is whether the language is aspect- or tense-prominent (1999:182).

1.5.3 Summary

The theoretical and empirical data discussed above contribute to an understanding of tense and aspect in several important ways. There are characteristics of situation aspect, viewpoint aspect, and tense values that regulate their interaction. In general, situation types that have a discernable internal structure combine more regularly with the imperfective viewpoint (which discerns that structure) and present tense (which shows a close connection with the imperfective aspect). By contrast, situation types that are instantaneous or telic combine regularly with perfective aspect (which is closely related to past tense based on the relationship between scope and temporal distance). These generalizations provide a foundation for discerning the semantics of TAM forms by providing a means by which to distinguish prototypical senses from non-prototypical ones.

The typological studies by Dahl and Bybee, Perkins, and Pagliuca, in addition to providing a broad database of TAM systems in natural language, show general tendencies among TAM systems. Most importantly, Bybee, Perkins, and Pagliuca have determined universal paths of
development within several broad semantic domains. These paths allow for analysis of other TAM systems as well as make comparison between forms easier because it eliminates the problem of trying to correlate forms that are at different stages of development. Grammaticalization studies, and Bybee, Perkins, and Pagliuca’s study in particular, inform the methodological approach to the Biblical Hebrew verbal system in chapter three (see 3.2).

Finally, Bhat’s study provides an important corrective to reductionistic studies of the Biblical Hebrew verbal system that insist the system must be either tense or aspect (see chap. two). The question must instead be framed in terms of which parameter is ‘prominent’—tense or aspect. Bhat provides guidelines for determining the most prominent parameter as well as correlations between tense-, aspect-, and mood-prominent languages and other linguistic phenomena. His study provides valuable evidence for the argument in chapter three with respect to the BHVS.

1.6 TENSE AND ASPECT IN DISCOURSE

Discourse analysis entered linguistic terminology with Zelig Harris’ 1952 articles by that title.\(^{30}\) Harris used the term in a fairly restricted sense: the analysis of discourse by breaking it up into its fundamental elements. Now, however, the term “is without a doubt one of the most widely used and loosely defined terms in the entire field of linguistics. . . . Not surprisingly then, the term ‘discourse analysis’ does not denote a unitary field of inquiry. That is, on the assumption that a field is defined by a common set of beliefs, a common methodology, and a common set of goals, ‘discourse analysis’ denotes many fields” (Prince 1988:164). Nevertheless, there are some elements in discourse analysis that characterize all of the discourse approaches interacted with in

\(^{30}\)The more common terminology among European linguists is text-linguistics.
First, discourse analysis is characterized by a common object of inquiry—a discourse/text as the verbal representation of a communicative act (Brown and Yule 1983:6). This definition of discourse analysis summarizes two important assumptions that most discourse studies hold in common: (1) grammatical analysis should not be limited by the traditional grammatical boundary of the sentence, but should extend beyond it to the ‘discourse’ level; (2) discourse is viewed as a social (communicative) act rather than simply an artifact. While discourse analysis has tended, as linguistics generally does, towards giving primacy to the study of spoken discourse, discourse theory is also regularly applied to written discourse. Even in these cases the presumption of text as a communicative act is present (see the discussion of dialogue vs. monologue in Longacre 1996:123–27).

Second, the general goal of discourse analysis is to discern patterns in the discourse that make meaningful communication from speaker/writer to listener/reader possible. It is at this point that the study of TAM and discourse analysis intersect because of the cross-linguistic correlations observed between particular TAM values and discourse functions. The first type of discourse study discussed below is content with identifying these TAM-discourse correlations, assuming that the identifying of discourse function is an appropriate, if not best, way to define verb forms. The second type, however, offers semantic explanations for the particular discourse function(s) of TAM forms. In particular, such studies have focused on the movement of time in discourse.

1.6.1 Discourse-Pragmatic Explanations for TAM Choice

One of the most wide-spread correlations between TAM forms and discourse function is that
between the perfective : imperfective opposition and the foregrounding–backgrounder function in discourse. However, characterizing these correlations between viewpoint aspect and discourse function has proven difficult, as shown by the two lists in table 1.18.

Table 1.18. Characteristics of perfective and imperfective aspects in discourse.

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Perfective Characteristics</th>
<th>Imperfective Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Hopper (1979:126)</td>
<td>chronological sequencing</td>
<td>simultaneity or chronological overlapping</td>
</tr>
<tr>
<td></td>
<td>view of event as a whole</td>
<td>view of a situation or happening not necessarily completed</td>
</tr>
<tr>
<td></td>
<td>identity of subject maintained</td>
<td>frequent change of subject</td>
</tr>
<tr>
<td></td>
<td>unmarked distribution of foie cluse (with presupposed subject and asserted verb)</td>
<td>marked distribution of focus (subject focus, instrument focus, or focus on sentence adverbial)</td>
</tr>
<tr>
<td></td>
<td>human topics</td>
<td>non-human topics</td>
</tr>
<tr>
<td></td>
<td>dynamic events</td>
<td>descriptive situations</td>
</tr>
<tr>
<td></td>
<td>foregrounding—event indispensable to narrative realis</td>
<td>background—situation necessary for understanding motives, attitudes, etc. irrealis</td>
</tr>
<tr>
<td>b. Molendijk (1994:23)</td>
<td>perfective foreground information</td>
<td>imperfective background information</td>
</tr>
<tr>
<td></td>
<td>punctuality of the fact narrative</td>
<td>durativity of the fact descriptive</td>
</tr>
<tr>
<td></td>
<td>non-anaphoric distantiation and dimensionalisation</td>
<td>anaphoric absence of distantiation and of dimensionalisation</td>
</tr>
</tbody>
</table>

J. Forsyth observed these correlations in Russian (1970:9–10), and Paul Hopper claimed that they were prevalent in many languages (1982:15). Dahl’s typological study has confirmed that they are widespread, except in languages that have a specific “narrative verb” form (1985:113). However, not everyone agrees with Hopper’s conclusion that the relationships are causal—i.e., perfective aspect foregrounds events, and imperfective aspect backgrounds events (1982:15). Helen Dry (1981, 1983) has contended that situation aspect rather than viewpoint aspect is the determining factor of whether an event is foregrounded or backgrounded in a discourse. Binnick

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31 See Brown and Yule (1983:134–35) for a discussion of the concepts of ‘foreground’ and ‘background.’
argues for the priority of discourse function, i.e., that other discourse features such as saliency, topic, and focus contribute to the foregrounding or backgrounding of events, and thereby, which aspect is selected (1991:381).

Robert Longacre eschews the issue of whether the correlations are causal, but maintains that simply recognizing such correlations between verb forms and saliency levels is adequate: “I posit here that (a) every language has a system of discourse types (e.g., narrative, predictive, hortatory, procedural, expository, and others); (b) each discourse type has its own characteristic constellation of verb forms that figure in that type; (c) the uses of given tense/aspect/mood form are most surely and concretely described in relation to a given discourse type” (1989:59). Longacre uses three parameters to determine the possible discourse types listed in table 1.19: contingent succession (“a framework of temporal succession in which some (often most) of the events or doings are contingent on previous events or doings”); agent orientation (“orientation towards agents with a least a partial identity of agent reference running through the discourse”); and projection (“a situation or action which is contemplated, enjoined, or anticipated, but not realized”) (1996:8–10; see also Longacre and Levinsohn 1978:103–4).

<table>
<thead>
<tr>
<th>+ Agent-Orientati on</th>
<th>− Agent-Orientati on</th>
</tr>
</thead>
<tbody>
<tr>
<td>NARRATIVE</td>
<td>PROCEDURAL</td>
</tr>
<tr>
<td>Prophecy</td>
<td>How-to-do-it</td>
</tr>
<tr>
<td>Story</td>
<td>How-it-was-done</td>
</tr>
<tr>
<td>BEHAVIORAL</td>
<td>EXPOSITORY</td>
</tr>
<tr>
<td>Hortatory</td>
<td>Budget Proposal</td>
</tr>
<tr>
<td>Promissory</td>
<td>Futuristic Essay</td>
</tr>
<tr>
<td>Eulogy</td>
<td>Scientific Paper</td>
</tr>
</tbody>
</table>

Within each discourse type verb forms operate at various levels of saliency. Longacre
proposes nine levels of saliency in narrative: (1') pivotal storyline (augmentation of 1), (1) primary storyline, (2) secondary storyline, (3) routine (script-predictable action sequences), (4) backgrounded actions/events, (5) backgrounded activity (durative), (6) setting (exposition), (7) irrealis (negatives and modals), (8) evaluations (author intrusions), and (9) cohesive and thematic (1996:28). Longacre’s cline for English narrative discourse in table 1.20 illustrates how verb forms might be distributed along these salience levels in a particular language.

<table>
<thead>
<tr>
<th>Band 1 Storyline</th>
<th>Past (Subject/Agent) Action, (Subject/Agent/Patient) Motion</th>
<th>Past (Subject/Experiencer) Cognitive events (punctiliar adverbs)</th>
<th>Past (Subject/Patient) Contingencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band 2 Background</td>
<td>Past Progressive (Subject/Agent) background activities</td>
<td>Past (Subject/Experiencer) Cognitive states (durative adverbs)</td>
<td></td>
</tr>
<tr>
<td>Band 3 Flashback</td>
<td>Pluperfects (events, activities which are out of sequence)</td>
<td>Pluperfects (cognitive events/states that are out of sequence)</td>
<td></td>
</tr>
<tr>
<td>Band 4 Setting (expository)</td>
<td>Stative verbs/adjectival predicates/verbs with inanimate subjects (descriptive)</td>
<td>“Be” verbs/verbless clauses (equative)</td>
<td>“Be”/“Have” (existential, relational)</td>
</tr>
<tr>
<td>Band 5 Irrealis (other poss. worlds)</td>
<td>Negatives</td>
<td>Modals/Future</td>
<td></td>
</tr>
<tr>
<td>Band 6 Evaluation (author intrusion)</td>
<td>Past tense (cf. setting)</td>
<td>Gnomic present</td>
<td></td>
</tr>
<tr>
<td>Band 7 Cohesive band (verbs in preposed/adverbiacl clauses)</td>
<td>Script determined</td>
<td>Repetitive</td>
<td>Back reference</td>
</tr>
</tbody>
</table>

Longacre proposes that behind this saliency cline for English are six parameters, associated with bands 7 through 2, respectively: (non)substantive, (non)narrative, (ir)realis, (non)dynamic, (non)sequential, and (non)punctiliar. The negative value of each parameter limits the item to that band (e.g., nonsubstantive is limited to band 7) (1996:26).

Longacre’s parameters are partially based on the parameters of transitivity determined by Hopper and Thompson (1980), and given in table 1.21. Hopper and Thompson determined that
the higher the transitivity in a predication the higher its saliency in discourse. Thus, they find a correlation between high transitivity and foregrounding, on the one hand, and low transitivity and backgrounding, on the other (note the similarity between the their list of transitivity parameters and those associated with foreground and background in table 1.18). They further hypothesize that the semantic prominence of transitivity actually derives from its connection with these discourse functions (1980:251).

<table>
<thead>
<tr>
<th>A. Participants</th>
<th>HIGH TRANSITIVITY</th>
<th>LOW TRANSITIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 or more participants, Agent and Object</td>
<td>1 participant</td>
<td></td>
</tr>
</tbody>
</table>

Discourse studies on the connection between aspectual values and discourse functions are helpful at the level of understanding how discourse functions. However, they beg the semantic question: why do these aspectual values align in these patterned ways with discourse functions? In particular, Scott DeLancey demurs with Hopper and Thompson, arguing that the semantic prominence of high transitivity is not due to its use in foregrounding; rather, it often correlates with foreground because of the association of parameters of high transitivity (e.g., action) with events that are “psychologically most salient” (i.e., “the most interesting parts” of the story) (1987:66; see further 4.2.2). The theories discussed in the following section have sought to address the semantic question with respect to which TAM forms advance time in discourse.
1.6.2 Semantic Theories of Discourse Movement

Hans Kamp and Christian Rohrer’s Discourse Representation Theory (DRT) begins with the question of how a semantic theory can adequately treat discourse, prompted by the inability of Montague semantics to adequately deal with meaning above the sentence level (see Kamp 1979). The order of sentences in a narrative discourse is often isomorphic with the events represented, thus making their order an important element of the discourse’s meaning. Montague semantics, however, is incapable of treating the meaning portrayed by the order of the events because it evaluates the truth of the predications independently of each other and in relation to the speech time. Hence, Montague semantics cannot differentiate the truth values in [1.20a] and [1.20b] that arise because of the clause order.

[1.20]  
a. She got married and got pregnant.  
b. She got pregnant and got married.

DRT, by contrast, evaluates each predication with respect to its contribution to the discourse in progress. Kamp and Rohrer state that “the significance of the tenses lies primarily in the temporal relations which they establish between the sentences in which they occur and the sentences which precede those in the texts or discourses in which those sentences occur” (1983:250).

DRT, like some of the theories surveyed above (1.2.3.4, 1.4.3), treats the speech time (S) as simply the initial reference point. Kamp and Rohrer explain that the reference point is transferrable to each new clause in the discourse: “At each such stage a particular time or event in the DRS [Discourse Representation Structure] is marked as reference point. Normally this reference point gets transferred to the next event that gets to be introduced into the representation” (1983:253–54). An illustration of the transferrence of the reference point for a past time narrative series of foregrounded events is given in figure 1.13 (Cl = clause).
However, if an event is background rather than foreground in the narrative then the reference point does not get transferred, but the second event (E₂) contains the first event (E₁), which retains the reference point, as illustrated in figure 1.14.

Thus, “the choice of tense form depends on the function that the sentence in which it occurs has in a text” (1983:253). They illustrate this principle with the French examples in [1.21] (1983:253): the sentence in [1.21a] is represented by the schematic in figure 1.13a–b, whereas the sentence in [1.21b] is represented by the schematic in figure 1.14.

[1.21]  

|   | a. Quand Pierre entra (Passé Simple), Maria téléphona (Passé Simple).  
|   | When Pierre entered (PFV), Marie telephoned (PFV)  
|   | b. Quand Pierre entra (Passé Simple), Marie téléphonait (Imparfait).  
|   | When Pierre entered (PFV), Marie was telephoning (IPFV)  

Kamp and Rohrer’s theory provides an exposition of the idea that the reference point is transient (see 1.4.3). They state that “the reference point about which Reichenbach speaks is established by context” (1983:255). There are not multiple reference points, but a transient reference point, whose movement is effected by the correlation between verbal aspect and foreground–background. However, Kamp and Rohrer have been criticized for their claim that
tense choice has only to do with the “function” of the sentence in the text (1983:253, quoted above) because it abandons sentence-level semantics (Dowty 1986).

By contrast, several studies have sought to explain the movement of discourse time on the basis of the situation aspectual value of the verbs (e.g., Dry 1981, 1983; Dowty 1986). The most recent of these is Alice ter Meulen’s dynamic aspect theory inspired by insights from situation semantics. The basis of her theory is her treatment of activities, accomplishments, and achievements as “holes,” “filters,” and “plugs” respectively. She explains:

If we interpret a given clause describing an event as a hole, then we interpret the information expressed in the next sentence of the text as describing of [sic] a temporal part of that event, as if the information flows through the hole. . . . If we interpret a given clause describing an event as a filter, then it restricts the information that flows through it to describing whatever else happened simultaneously. . . . Filters create a choice between interpreting the next clause as describing a later event and interpreting it as describing an event temporally included in the filter. . . . If we interpret a given clause describing an event as a plug, then it blocks all information about whatever happened at the same time. No new information can flow through it, so to speak, so it forces the context to redirect its temporal focus, interpreting the next sentence as describing another, later event. (1995:7)

Ter Meulen uses “dynamic aspect trees” to illustrate her system (1995:43–46). Every tree consists of a “root” node (◯) representing the entire episode, and a “source” node (●), equivalent to the time of speech. Each event is successively placed as the “current node” on the tree (i.e., the “current node” refers to the location of the reference point). If the event is a plug (●), the following event forms a “sister” node to it; if it is a hole (◯), the following event forms a “daughter” node to it. States (as well as perfect and progressive tenses) are placed as “stickers” on the current node if it is a plug, and the one following if it is a hole (1995:51).

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32 *Situation Semantics* is theory developed by Jon Barwise and John Perry (1983) as an alternative to model-theoretic (Montague) semantics. At the heart of the theory is its analysis of sentences in terms of situations—consisting of a location, a relation, and a truth value—rather than truth conditions. In addition, situation semantics takes context into account to a greater degree (Crystal 1991:318; Dekker 1994).
[1.22]  a. Kathy arrived at the station. The train had left already. She sat down on the bench.

b. Jared won. He was so happy. He danced around, shouted, and clapped his hands.

The situation in [1.22a] consists of three sentences: the verbs in the first and third are plugs, forming two successive events; the second sentence contains a perfect verb, which is placed as a “sticker” on the preceding plug node to signify that the event of the train leaving is prior to Kathy’s arrival at the station. By contrast, [1.22b] consists of a plug followed by a series of holes. The first hole is placed as a sister node to the initial plug, but the following holes are interpreted as part of the situation expressed by the first hole—was so happy.

As stated in the above quote, a “filter” presents a choice between interpreting an event as a plug (●) or a hole (○). This ambiguity is illustrated by ter Meulen’s example in [1.23], which can be represented by two different trees, depending on whether the filter event attempted to decipher the message is interpreted as a plug or hole. Either looked at her watch is temporally included in the hole event of attempted to decipher the message, or—more naturally—it follows it (plug).
January 23. Jan felt ill. She sat down, attempted to decipher the message, and looked at her watch. She sighed. It was not even noon yet.

Unfortunately, both Kamp and Rohrer’s identification of viewpoint aspect and ter Meulen’s identification of situation aspect as determinative of the movement of time in discourse still beg the semantic question of why these forms are suited to these discourse functions. Galia Hatav has attempted to address this semantic question. Hatav argues that any situation type may advance the reference point (discourse time)—including states and activities. What is crucial in the advancement of the reference point is whether the endpoints of the event are included in the scope of the reference time or not (1989:493).

Based on her interval model of event structure, the endpoints of accomplishments and achievements are always included in their reference time; in the case of activities and states the endpoints can be semantically signaled in the text, most commonly by adverbs. At the same time, the application of an imperfective viewpoint aspect will prevent the endpoints of an activity or state from being included in the reference time. The reference time is advanced in [1.24a], although dance is an activity, because the adverbial phrase three times delimits the activity’s extent so that the endpoints are within the reference time. By contrast, [1.24b] is ungrammatical because the imperfective verb, which excludes the endpoints from the reference time, is incompatible with the adverbial phrase three times, which determines the endpoints (Hatav 1989:509).
   b. **Colin was dancing three times.

Hatav’s semantic treatment points to the following generalizations: perfective aspect and [+telic] (accomplishment and achievement) situations include their endpoints in the scope of the reference time; thus they advance the reference point and present foregrounded events. By contrast, events that are not [+telic], by default, do not include their endpoints in the scope of the reference time; nor does the imperfective include the endpoints of an event in its purview. These aspectual types, therefore, are predominately used for backgrounded events. Hatav’s theory demonstrates the complexity of time and movement in discourse. Reference time movement is not determined by a single parameter, but rather by a confluence of several parameters, including viewpoint aspect, situation aspect, and adverbial modification of the predicate. Hatav’s claims about the movement of time are refined in chapter four (4.2.1).

### 1.6.3 Summary

A discourse-level analysis of TAM systems is crucial to answering the question of why a native speaker/writer chooses a particular form. However, a major weakness of the first type of discourse analysis (1.6.1) is that its proponents present discourse-pragmatic descriptions as suitable alternatives to semantic ones. The second type (1.6.2) attempts to remedy the situation by examining the semantic factors leading to the correlation of aspect with the movement of discourse time and foregrounding–backgrounding. However, linguists have recognized over the past twenty years that the factors contributing to the movement of discourse time is complex. In addition, foreground and the movement of discourse time has not be adequately distinguished in these discussions. Both of these issues are attended to in chapter four (4.2).
1.7 MODALITY

The category of modality presents difficulties different from those encountered with aspect, but ones that are no less problematic. The insurmountable problem of trying to encompass this sprawling category with a universal typological definition is expressed in Frank Palmer’s closing remarks to his study of mood and modality: “A question that must be asked is whether this study has shown that a typological grammatical category of modality has been demonstrated. If a category as clearly demonstrable as tense, aspect, gender, person or number is expected, the answer must be ‘No’” (1986:224).

1.7.1 Definition

Struggles to compose a definition of the protean category of modality/mood have led to the very vague and general definition that it has to do with the “‘opinion or attitude’ of the speaker” towards an utterance (Palmer 1986:2; quoting Lyons 1977:452). Somewhat less vague is Bybee’s working definition, in which she included in the category of mood “any markers that indicated what role the speaker meant the proposition to play in the discourse” (1985:192). Sandra Chung and Alan Timberlake offer a more utilitarian, but also restrictive, definition by drawing on the notion of possible worlds from model-theoretical semantics: “Mood characterizes the actuality of an event by comparing the event world(s) to a reference world, termed the actual world. An event can simply be actual (more precisely, the event world is identical to the actual world); an event can be hypothetical (the event world is not identical to the actual world); the event may be imposed by the speaker on the addressee; and so on” (1985:241). However, Chung and Timberlake neglect to make clear the point made in the first definition cited above—that the
actuality of the event is with respect to the speaker’s viewpoint, not the ontology of the event itself (see 1.7.2.4 below).

While mood is often treated as synonymous with modality (e.g., Chung and Timberlake 1985; Bhat 1999), there is a relatively clear distinction between the two. *Mood* is generally understood to be a part of verbal inflection (Crystal 1991:223; Bybee 1985:165), whereas *modality* is a typological semantic category (Palmer 1986:22). In Western grammar the traditional categories of mood include the indicative, subjunctive, and optative. The varieties of modal ideas, however, can be expressed not only by verbal inflection but with modal verbs, clitics and particles, and discourse markers, not to mention voice inflection. The remainder of this discussion focuses on the typological semantic category of *modality*.

### 1.7.2 Types of Modality

Similar to the divisions within the category of aspect, modality has been subdivided into various types. Early in this century Jespersen made a two-fold division based on whether the modality included an element of the speaker’s will or not; his tentative categorization of modalities is given in [1.25] (1924:320–21).

[1.25] a. *Containing an element of will:*

- Jussive: Go (command).
- Compulsive: He has to go.
- Obligative: He ought to go. We should go.
- Advisory: You should go.
- Precative: Go, please.
- Hortative: Let us go.
- Permissive: You may go if you like.
- Promissive: I will go. It shall be done.
- Optative (realizable): May he still be alive!
- Desiderative (unrealizable): Would he were still alive!
- Intentional: In order that he may go.
b. Containing no element of will:
Apodictive: Twice two must be (is necessarily) four.
Necessitativ e: He must be rich (or he could not spend so much).
Assertive: He is rich.
Presumptive: He is probably rich; he would know.
Dubitative: He may be (is perhaps) rich.
Potential: He can speak.
Conditional: If he is rich.
Hypothetical: If he were rich.
Concessional: Though he were rich.

Within philosophical and logical studies, E. H. von Wright’s four-fold subdivision of modality has been influential. He identifies a lethic (truth), epistemic (knowing), deontic (obligation), and existential (existence) types of modality (1951:1). Von Wright offers the chart in table 1.22 illustrating the distinctions between these four categories.

| Table 1.22. Von Wright’s subdivisions of modality (adapted from 1951:2). |
|-----------------|-----------------|-----------------|-----------------|
| alethic |epistemic |deontic |existential |
| necessary | verified | obligatory | universal |
| possible | — | permitted | existing |
| contingent | undecided | indifferent | — |
| impossible | falsified | forbidden | empty |

Linguists have largely ignored existential modality, and even alethic has received little attention. Most linguistic discussions of modality center around the epistemic and deontic subdivisions.

The other philosophical basis for the study of modality is found in speech act theory, developed by J. L. Austin (1962), which frames Lyon’s discussion of modality (1977:chap. 17). Speech act theory analyzes utterances in terms of their communicative activity (the locutionary act), the intention of the speaker in making the utterance (the illocutionary force), and the effect of the utterance on the listener(s) (the perlocutionary force) (Crystal 1991:323). The types of illocutionary force identified in speech acts have clear similarities with some of the types of modality in Jespersen’s list ([1.25]). The five types of illocutionary force given by J. R. Searle are listed in table 1.23.
Table 1.23. Types of illocutionary forces (Searle 1983:166; see Crystal 1991:323).
- assertives: where we tell our hearers (truly or falsely) how things are
- directives: where we get them to do things
- commissives: where we commit ourselves to do things
- declarations: where we bring about changes in the world with our utterances
- expressives: where we express our feelings and attitudes

Assertives are clearly associated with epistemic modality as are directives with deontic. Palmer treats commissives under deontic modality (1986:14); and declaratives (Austin’s performatives) are just one step removed semantically from commissives and so, likewise, can be classified as deontic. Expressives, on the other hand, are not properly a type of modality.

1.7.2.1 Deontic Modality

Deontic is the most discrete category of modality. It is unified around the concepts of obligation and permission—expressions of the speaker’s will, as Jespersen categorized it. In terms of possible worlds: “The deontic mode characterizes an event as non-actual by virtue of the fact that it is imposed on a given situation” (Chung and Timberlake 1985:246).

The most prevalent type of deontic modality is the imperative. Palmer argues that not only is it the most common type, but it is the least marked form: “The imperative seems to do no more than express, in the most neutral way, the notion that the speaker is favourably disposed towards the action” (1986:29–30). This is evident from the imperative’s wide range of senses, from commands (Do it now!), to polite permissives (Help yourself to a drink.). Directives, of which imperative is the most prevalent member, may express different degrees of obligation: should or ought to can express a “more tentative” form of obligation; likewise, might or could may express a “more tentative” form of permission. A taxonomy of deontic modality is given in table 1.24.

a. Directives
   - Imperatives: Go! (including jussives = first and third person imperative [Palmer 1986:111])
   - Permissives: You may pass by.
   - Requests: May I pass by?

b. Commissives: (promises and threats) (not usually morphologically differentiated from declaratives [Palmer 1986:115])

c. Performatives (not morphologically differentiated from declaratives [Palmer 1986:169])

   - Wish: May he be blessed!
   - Hope: O that I could have gone too!
   - Fear: I fear Tage has gotten into mischief.

1.7.2.2 Epistemic Modality

Epistemic modality deals with the degree of commitment by the speaker to the proposition (Palmer 1986:51). Chung and Timberlake state: “The epistemic mode characterizes the actuality of an event in terms of alternative possible situations, or worlds. At any point in time, there is an actual world, and there are also a number of alternative worlds that could exist at that time. The epistemic mode characterizes the event with respect to the actual world and its possible alternatives” (1985:242; see Nuyts 2001:21). Three main epistemic modalities are generally recognized. Talmy Givón’s definitions of these are given in [1.26] (1982:24).

   [1.26] a. Propositions which are taken for granted, via the force of diverse conventions, as unchallengeable by the hearer and thus requiring no evidentiary justifications by the speaker.
   b. Propositions that are asserted with relative confidence, are open to challenge by the hearer and thus require—or admit—evidentiary justification.
   c. Propositions that are asserted with doubt as hypotheses and are thus beneath both challenge and evidentiary substantiation.

Palmer labels the first of these, [1.26a], declaratives (cf. Searle’s “assertives,” table 1.23) and argues that these are the unmarked (unmodalized) member of the epistemic system, since the speaker makes the most neutral commitment to the event with declaratives (1986:51; see Lyons 1977:797). Givón’s other two epistemic types [1.26b–c] are equivalent to Palmer’s evidential and
judgment categories, respectively (Palmer 1986:53) (Chung and Timberlake treat evidentials in an epistemological category, separate from epistemic [1985:244–46]). These categories relate to the basis of a speaker’s commitment to his/her statement: it is either inductively (evidentials) or deductively (judgment) based. While pure evidential systems are rare, Palmer cites the example of Tuyuca (Brazil and Columbia), which expresses five degrees evidentials: visual, non-visual, apparent, secondhand, and assumed (1986:66–67).

By contrast, judgments may be based on inference or express the degree of confidence in the truth of the proposition. These two options relate to the primary modal logic operators necessity and possibility (see MacCawley 1993:chap. 11). While declaratives are most often represented by the indicative mood or the absence of any other modal marking, judgments are often expressed by modal verbs as in English and German [1.27].

[1.27]  
  a. Jared may be feeling ill.  
  b. Hans muss krank sein.

Palmer has proposed that dynamic modality be recognized as a third type alongside deontic and epistemic. Dynamic modality relates to the notions of ability and willingness and, according to Palmer, is not a “speaker-oriented” modality as deontic and epistemic modalities are (see also Nuyts 2001:25). However, dynamic modality can be understood as an extension of epistemic modality, and therefore understood as subcategorized under it. The sentence in [1.28a] makes a statement about Evan’s ability, but it also entails the speaker’s assessment of Evan’s ability (contra Palmer 1986:102). In [1.28b], the role of the speaker’s opinion is even more evident.

[1.28]  
  a. Evan can walk.  
  b. Colin is willing to help.

Finally, Palmer notes that interrogation fits into the modality system in some languages.
Whether all interrogatives should be treated as modal is uncertain. However, when a speaker poses a question, s/he raises the issue of the actuality of an event. This category, therefore, falls generally under the rubric of epistemic modality.

1.7.2.3 Oblique Modality

The category of oblique modality is based on the distribution of modal verb forms in subordinate clauses. Palmer includes in this category implicated (purpose and result), causal, and conditional clauses. With respect to implicated purpose clauses Palmer states, “these are semantically modal in that they express an attitude by the subject of the sentence, explaining what intentions he has in carrying out the action indicated” (1986:174). This concept can be expanded to causal clauses as well—the speaker expresses the cause of his/her action. However, this analysis of oblique modality does not explain implicated result or conditional clauses.

Chung and Timberlake present an alternative semantic analysis of conditional clauses in terms of epistemic modality: “Both the condition and consequent can in principle be evaluated for their degree of (epistemic) actuality. The actuality of the consequent is, of course, related to the actuality of the condition. The relationship involved is usually taken to be necessity; so ‘if α, then β’ means that β necessarily occurs when α occurs. In practice, though, the relationship can be weakened, so that a conditional sentence can mean ‘if α, then certainly/probably/perhaps β’” (1985:250). On this basis we can semantically analyze oblique modality as expressing contingent modality (cf. von Wright’s contingent altheic in table 1.22 above). That is, the actuality of the subordinate clause (purpose, result, cause, condition) is contingent upon the actuality of the matrix clause. More generally we can speak of this type of modality relating to the range of protasis-
apodosis constructions: conditional, temporal, causal, concessive, purpose, and result.

1.7.2.4 Realis versus Irrealis

A recently proposed category of modality is the realis : irrealis distinction. According to Bybee, Perkins, and Pagliuca, the category appears in the literature only since 1970 (1994:236). The notions of realis and irrealis correspond to the concepts of actuality and nonactuality: “events and states classified as nonactualized, those that remain within the realm of thought and imagination, are overtly distinguished from those portrayed as actualized” (Mithun 1995:386). However, this distinction of realis (actual) and irrealis (non-actual) is not uniformly associated with grammatical categories cross-linguistically: “Construction types marked as Irrealis in one language may be marked as Realis in the next. In some languages Imperatives are classified as Irrealis, in others as Realis; futures, questions, and negatives also show some variation. The formal expression of the distinction varies cross-linguistically as well” (Mithun 1995:367).

Marianne Mithun goes on to argue that the realis : irrealis distinction is, nevertheless, a valid cross-linguistic category, and attempts to provide explanations for the divergencies between the scope of these categories in individual languages. However, the problem with the realis : irrealis distinction does not lie in its mismatch with grammatical categories, but with its treatment as a type of modality. Bhat defines modality as “concerned with the actuality of an event” (1999:63). This definition differs considerably from the definition of modality given above (1.7.1): modality has to do with the “‘opinion or attitude’ of the speaker” towards an utterance (Palmer 1986:2; quoting Lyons 1977:452). The confusion that can arise between ontological actuality of an event and its actuality in the estimation of the speaker is evident in Chung and Timberlake’s definition
of modality, also cited above (1.7.1): “Mood characterizes the actuality of an event by comparing the event world(s) to a reference world, termed the actual world. An event can simple be actual (more precisely, the event world is identical to the actual world); an event can be hypothetical (the event world is not identical to the actual world); the event may be imposed by the speaker on the addressee; and so on” (1985:241). It is unclear from this quote whether Chung and Timberlake have the ontological actuality of the event in mind (e.g., actual events), or the speaker’s estimation of an event (e.g., hypothetical event).

Bybee, Perkins, and Pagliuca conclude their discussion of irrealis with this statement: “Considerable evidence suggests that it is not the domain of truth or fact that is the relevant domain for mood, but rather the domain of assertion and non-assertion that is relevant. That is, mood does not index the truth value of a proposition in any abstract sense, but rather tells us the extent to which the speaker is willing to assert the truth of a proposition” (1994:239). The realis : irrealis distinction, then, is at least a questionable modal category. While the distinction does not always align with tense divisions (see Comrie 1985:51), languages that have a non-future : future tense distinction have been hypothesized as having developed from an earlier realis : irrealis distinction (Bhat 1999:17).

1.7.3 Modality and Future Tense

Linguists recognize a close relationship between modality and future tense. Lyons states, “Futurity is never a purely temporal concept; it necessarily includes an element of prediction or some related modal notion” (1977:677). He bases his statement on three pieces of evidence: first, future tense forms in languages are rarely used only for making predictive statements, but are used
with modal senses such as expressing wishes, intentions, and desires; second, diachronic evidence points to the development of most Indo-European future tense forms from modal forms; third, there is a clear semantic connection between future tense and deontic modality, which is by definition always future time (1977:816–17).

Chung and Timberlake are in agreement with Lyons: “Situations in the future are inherently uncertain as to actuality. . . . The future is thus a semantic category where tense and mood merge” (1985:243). Future statements, however, are not mutually exclusive of other types of modality, such as various degrees of judgments (e.g., *He will certainly be there. He perhaps will be there.*). The etymological and even semantic overlap with epistemic and deontic modality does not justify rejection of future tense as an non-modal (indicative) tense form as some linguists have proposed (see Binnick 1991:251, 488 n.44). An argument for a future (indicative) tense is made in chapter three (3.1.6).

### 1.7.4 Summary

The preceding discussion of modality has primarily clarified terminology (modality vs. mood), and outlined a possible taxonomy of modality. Modality as a typological category is sprawling and in need of further study before a more definitive taxonomy may be offered. Yet an unavoidable problem with developing such a taxonomy is the widely varying expressions of modalities in the languages of the world. Unlike tense and aspect, which are the most commonly denoted values in verbal bound morphology, modality is sometimes expressed by verbal morphology, but often by auxiliary verbs, particles, and other means. This discussion, however, provides a starting point for the language-specific analysis of modality in chapter three.


2 DISCUSSION OF TENSE, ASPECT, AND MODALITY IN THE BHVS

The focus in this chapter narrows from that in chapter one by examining the discussion of TAM in the Biblical Hebrew verbal system (BHVS) in particular.¹ Few topics in Biblical Hebrew (BH) grammar have received as much attention as the verbal system, making any one who addresses the topic indebted to the profusion of previous scholarship. Surprisingly, there are very few surveys of these discussions available, and none are complete. The only book-length study is Leslie McFall’s (1982), which only surveys through Thacker (1954). Briefer surveys appear in Brockelmann (1951), Mettinger (1974), Endo (1996), Hatav (1997), and Goldfajn (1998).

The scope of this survey is fairly broad, chronicling the developing discussions of the verbal system in BH (and some other Semitic languages) from the nineteenth century onwards, focusing particularly on the developments of the past half century. This survey of research on the BHVS provides both a foundation and a context for the ensuing discussion of the verb in chapter three.

2.1 THE SEMANTIC PROBLEMS WITH THE BHVS

There are three fundamental problems in trying to develop a semantic model of the BHVS. The first problem is that the variety of time significations made by the forms, qatal and yiqtol,

¹This discussion excludes the infinitive forms. The other forms are referred to using the common notation of simplified transcription using the root qtl ‘to kill’ (traditional names are given in parentheses): qatal (perfect), yiqtol (imperfect), wayyiqtol (waw-consecutive imperfect), weqatal (waw-consecutive perfect), qotel (participle, including stative adjectival participles). The modal forms are referred to by the conventional names Imperative, Jussive, and Cohortative (capitalized, in contrast to universal semantic categories given in lowercase). The following abbreviations are used to gloss these forms in examples: COH = Cohortative, IMP = Imperative, JUSS = Jussive, QOT = qotel, QTL = qatal, WAYY = wayyiqtol, WQTL = weqatal, YQTL = yiqtol.
appear to defy a singular semantic designation for either form in terms of TAM. The variety of English verbs forms that have been employed to render these two BH verb forms in the examples in [2.1] is illustrative of the problem.

[2.1]  

a. **Qatal** has been translated with English . . .  
Simple Past: ‘In the beginning God created (bərā) the heavens and the earth.’ (Gen 1.1, RSV)  
Past Perfect: ‘Now Jacob did not know that Rachel had stolen (gənāḇātām) them.’ (Gen 31.32, RSV)  
Present Perfect: ‘They have forsaken (mālā) the Lord.’ (Isa 1.4, RSV)  
Subjunctive: ‘If you had saved them alive, I would not kill (ḥāraqtī) you.’ (Judg 8.19, NRSV)  
Present: ‘The lazy person says (mar), “There is a lion outside!”’ (Prov 22.13, NRSV)  
Future: ‘They will not hurt or destroy on all my holy mountain, for the earth will be full (mālā) of the knowledge of the Lord.’ (Isa 1.9, NRSV)  
Future Perfect: ‘He shall die in his iniquity; but you will have saved (ḥiṣṣālā) your life.’ (Ezek 3.19, RSV)  
Modal: ‘Awake, my God; decree (šēwīthā) justice.’ (Ps 7.6, NIV)

b. **Yiqtol** has been translated with English . . .  
Simple Past: ‘Then Joshua built (yibneh) an altar in Mount Ebal to the Lord.’ (Josh 8.30, RSV)  
Progressive Past: ‘But a stream was welling up (yaḥleh) out of the earth.’ (Gen 2.6, NA B)  
Conditional: ‘This is what Job used to always do (yāʿēsh).’ (Job 1.5, NJPS)  
Present: ‘A wise son makes his father happy (yāṣammāh).’ (Prov 15.20, NJPS)  
Progressive Present: ‘What are you looking (ṭeḥaqqē) for?’ (Gen 37.15, NAB)  
Future: ‘But they will never believe (yāʿāminū) me.’ (Exod 4.1, REB)  
Modal: ‘You shall not kill (tiṣrāh).’ (Exod 20.13, NAB)


The plethora of uses of **qatal** and **yiqtol** may also be illustrated by McFall’s statistical listing, in table 2.1, of translational equivalences for these forms in the Revised Standard Version.

<table>
<thead>
<tr>
<th>Qatal forms</th>
<th>Yiqtol forms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Past = 10,830</td>
<td>Past = 774</td>
</tr>
<tr>
<td>Present = 2,454</td>
<td>Present = 3,376</td>
</tr>
<tr>
<td>Future = 255</td>
<td>Future = 5,451</td>
</tr>
<tr>
<td>Non-past Modal = 56</td>
<td>Non-past Modal = 1,200</td>
</tr>
<tr>
<td>Past Modal = 115</td>
<td>Past Modal = 423</td>
</tr>
<tr>
<td>Imperative = 17</td>
<td>Imperative = 2133</td>
</tr>
<tr>
<td>Jussive/Cohortative = 38</td>
<td>Jussive/Cohortative = 789</td>
</tr>
<tr>
<td>Non-verbal = 109</td>
<td>Non-verbal = 153</td>
</tr>
</tbody>
</table>
Not only do such data make finding an organizing semantic center for the qatal and yiqtol forms appear impossible, it makes any contrastive distinction between them difficult to make. This latter problem is made especially acute by examples such as those in [2.2–2.3],2 in which the two forms appear to be interchangeable, appearing in parallel contexts.

[2.2] a. 'ābōt yō'k'lu bōser w'sinnē habbānīm tiqḥēnā
fathers eat:YQTL:3MP unripe-grape and-teeth.of the-sons become-dull:YQTL:3FP
‘Fathers eat unripe grapes and the children’s teeth become dull.’ (Ezek 18.2)

       b. 'ābōt 'āk'lu bōser w'sinnē bānīm tiqḥēnā
fathers eat:QTL:3MP unripe-grape and-teeth.of sons become-dull:YQTL:3FP
‘Fathers eat unripe grapes and the children’s teeth become dull.’ (Jer 31.29)

[2.3] a. wayyō'mer 'ālēhem mē'ayin bā'tem
and-say:WAYY:3MS to-them from-where you-come:QTL:2MP
‘And he asked them, “Where do you come from?” ’ (Gen 42.7)

       b. wayyō'mer 'ālēhem y'hōšu’mi 'attem ūmē'ayin tābō'ū
and-say:WAYY:3MS to-them Joshua who you and-from-where you-come:YQTL:2MP
‘And Joshua asked them, “Who are you and where do you come from?” ’ (Josh 9.8)

The second problem is that alongside the qatal and yiqtol verb forms are two other forms, traditionally called “waw-conversive” or “waw-consecutive” forms because of the presence of the prefixed waw conjunction on them: weqatal and wayyiqtol. Except for the phonological difference in the attachment of the conjunction on the two forms (w' vs. waC- [C = lengthened consonant]), these two forms appear prima facie to consist of the conjunction prefixed to the qatal and yiqtol verb forms. However, semantically wayyiqtol (ostensibly waC- + yiqtol) corresponds more closely to qatal than yiqtol, and vice versa, weqatal (ostensibly w'- + qatal) aligns semantically with yiqtol. This is evident from similarities between the taxonomies that are given for wayyiqtol and qatal, on the one hand, and for weqatal and yiqtol, on the other (e.g.,

2I thank Jay Bonnell for bringing the Ezekiel 18.2 // Jeremiah 31.29 example to my attention.

[2.4] َال-كُنُ يَاذَابُ ْيُشَّتُ 'َايَبِيِّ وَاَبَّ مُّدَابَاقُ بِإِشَتَّ
therefore leave:YQTL:3MS man OBJ father-his and-OBJ mother-his and-cleave:WQTL:3MS to-wife-his

‘Therefore, a man will leave his father and his mother and will cleave to his wife.’ (Gen 2.24)

In the case of the *qatal-wayyiqtol* relationship, parallel passages like those in [2.5] illustrate the apparent semantic identity of the two forms (see also 2 Kgs 18.36 // Isa 36.21).

[2.5] a. بَأَئِتْ هَالِيِّ سَلَاحُ بِتَرَدِكَ بَالَادِانَ بَنٌ- بَالَادِانَ مَلِك- بَابِل سُبُرِّ
at-time that send:QTL:3MS Berodach baladan son.of baladan king.of Babylon letters
úminḥa’ él-hiziqyāhū ki šāma’
ki ḫalā ḫiziqyyāhū
and-gift to Hezekiah for hear:QTL:3MS that sick:QTL:3MS Hezekiah

‘At that time Berodach-baladan son of Baladan king of Babylon sent letters and a gift to Hezekiah for he heard that Hezekiah was ill.’ (2 Kgs 20.12)

b. بَأَئِتْ هَالِيِّ سَلَاحُ مُترَدِكَ بَالَادِانَ بَنٌ- بَالَادِانَ مَلِك- بَابِل سُبُرِّ
at-time that send:QTL:3MS Merodach Baladan son.of Baladan king.of Babylon letters
úminḥa’ él-hiziqyāhū wayyišma’
ki ḫalā wayyeḥēzāq
and-gift to Hezekiah and-hear:WAYY:3MS that sick:QTL:3MS and-recover:WAYY:3MS

‘At that time Merodach-baladan son of Baladan king of Babylon sent letters and a gift to Hezekiah for he heard that he had been ill and had recovered.’ (Isa 39.1)

Schematically, the relationship between these four verb forms is illustrated in figure 2.1, in which the verb forms are shown as *semantically* similar across the horizontal axis, and *formally* similar along the vertical axis.

**Figure 2.1.** Relationships between *qatal*, *yiqtol*, *weqatal*, and *wayyiqtol* forms.

<table>
<thead>
<tr>
<th>Formal Similarity</th>
<th>wayyiqtol</th>
<th>(w)qatal</th>
</tr>
</thead>
<tbody>
<tr>
<td>(w)yiqtol</td>
<td></td>
<td>weqatal</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semantic Similarity</th>
</tr>
</thead>
</table>

The dilemma that this four-way relationship poses for developing a semantic model the BHVS
is trenchantly stated by Binnick: “If the waw adds no temporal (tense or aspect) meaning, then the
difference between verbs with waw and verbs without waw cannot be a semantic one. But
apparently it is, for the forms with the waw are generally seen as “reversing” the values the
“tenses” normally have. To reconcile the two, we must assume that the forms without the waw
and those with it do not in fact differ in semantics, but the only way this is possible is if the “tense”
forms do not differ from one another in meaning to begin with” (1991:441).³

Finally, a third problem is that the division between indicative and modal systems in BH is
fuzzy. This feature is not unique to BH; many languages have forms that function both
indicatively and modally. However, this characteristic in BH only exacerbates the problems
outlined above. It is apparently not just an issue of the functional diversity of individual forms,
but the mixing of forms. For instance, the yiqtol and Jussive forms in BH are often homonymic;
nevertheless, even instances of yiqtol that are morphologically distinct from the Jussive occur
with the same semantic value as the latter, as illustrated by the examples in [2.6].

[2.6]  a. lō-  taˈšâh  kol-mʕâl-kâ
      not do:YQTL:2MS all work
      ‘You shall not do any work/Do not do any work.’ (Exod 20.10)

      b. wʕal-  taˈas  lô  mʕâmmâ
      and-not do:JUSS:2MS to-him anything
      ‘Do not do anything to him.’ (Gen 22.12)

In the case of weqatal, not only is its semantic status in the indicative system unclear (figure 2.1),
it likewise straddles the indicative and modal systems, commonly appearing in modal contexts,

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³ Alexander Sperber takes a resigned approach to the dilemma outlined by Binnick: “Each of these tenses [qatal/weqatal, yiqtol/wayyiqtol] may indicate any and every time... The difference that existed between the suffix tense [qatal] and the prefix tense [yiqtol] was not of a temporal, but rather of a dialectic character... The term waw consecutivum, which the grammar had to invent in order to explain the use of an imperfect [yiqtol] with the meaning of a perfect [qatal], and vice versa, thus becomes obsolete” (1943:199; see 1966:591–92).
conjoined to a Jussive, Imperative, or Cohortative continuing the modal sense, as in [2.7].

\[
\text{[2.7] wattō'mer  'ālaqōtā-nā wē'asptî baḵōmārim 'ahārē haqqōs 'rim}
\]

\[
\text{and-say:WAYY:3FS glean:COH:1S and-gather:WQTL:1S in-sheaves behind the-harvesters}
\]

\[
\text{ʼAnd she said, “Let me glean and gather into sheaves behind the harvesters.”’ (Ruth 2.7)}
\]

Discussion of the BHVS is in large part reducible to various attempts to resolve one or more of the problems listed here. Therefore, the following survey focuses particularly on proposed solutions to these three problems: \text{qatal : yiqtol}, the \text{waw}-prefixed forms, and the indicative-modal distinction.

\section*{2.2 The Establishment of the ‘Standard’ Theory}

\subsection*{2.2.1 Before Heinrich Ewald and Samuel R. Driver}

Little justification is required for making the theories of Heinrich Ewald and Samuel Driver the starting point in an investigation of theories of the BHVS. McFall less than twenty years ago was able to state that “the majority of scholars [working on the Hebrew verb] still go back to two 19th century theories, those of H. Ewald (1835) and S. R. Driver (1874)” (1982:27). Starting with these theories does not belittle prior contributions, but highlights the extraordinary and long-lasting influence that these theories have had on the discussion of the BHVS.

The effect of Ewald and Driver can only be appreciated against a backdrop of the current state of the field in the early part of the nineteenth century, just prior to when Ewald first put forth his theory. The most pervasive absolute tense theory leading up to Ewald was the \text{waw}-conversive theory, which dates back to the Jewish medieval grammarians (as early as the tenth century according to McFall 1982:3) and is still given lip-service by scholars today (e.g., Joüon 1993:386–87 labels the \text{waw}-prefixed forms “inverted tenses”; Lambdin 1971:108 writes of tense
values being “converted”; and even the recent introductory grammars of Kittel, Hoffer, and Wright 1989:56–57 and Pratico and Van Pelt 2001:chap. 17 retain the term “conversive”). The theory is based on an understanding that BH has three absolute tenses corresponding to the three times, as illustrated in [2.8]:

[2.8]  
Qatal = ˁābār (Past)  
Qotel = ˁōmēd or bēnōnī (Present)  
Yiqtol = ˁātīd (Future)

Upon this absolute tense basis a “conversive” explanation was offered for the two waw-prefixed forms—wayyiqtol and wqatal. According to the conversive theory two different waws must be distinguished—waw hībbūr and waw hippūk (translated into Latin as waw conjunctivum and waw conversivum, respectively) (McFall 1982:12). The latter type of waw, identified in the wayyiqtol and wqatal forms, was thought to ‘convert’ the tense from past to future or vice versa.

One of the clearest expositions of the conversive theory is in the grammar of Elias Levita (1468–1549), first published in 1518.

Notice, when you want to convert a past into a future you place a waw with a šēwā in front of it, as in the case of šmr: wšmr yhwḥ (‘And Yhwh will keep’; WQTL:3MS . . .’ Deut 7.12), which is like wyšmr (‘and he will keep’; YQTL:3MS’). Likewise, wšmrw bny yšrî lʾt-hšbt (‘And the sons of Israel shall keep’; WQTL:3MP the Sabbath,’ Exod 31.16). It is like wyšrwmw (‘and they shall keep’; YQTL:3MP’).

For discussion of perspectives on the participle (qotel) prior to the nineteenth century, see Dyk (1994:366–84).
And the waw is always pointed with šʷā except before those consonants that cancel it, turning it into a šūreq, patah, or hireq, just as is explained in the aforementioned passage.

And if you ask, “How do I know whether this is waw conjunctivum or waw conversivum?” This (is how): when before it is another past verb, then it is a waw conjunctivum, and an example verse is myʾl wšḥ (‘Who has made and done:QTL:3MS it?’ Isa 41.4). And the wise one will understand. And likewise the two waws in wqr š𐤄 h’lḥ w’mr (‘And one called:QTL:3MS to another and said:QTL:3MS,’ Isa 6.3). Notice, the two are waw conjunctiva because wʾ h:WAYY:1S ’tyhwḥ is written before them, which is a past verb because the waw has a games. And notice that the style in the Bible is to use a past in place of a future and a future in place of a past. And this occurs most often in the words of the prophets, but in historical narrative it occurs very little.

And notice that for second person and first person singular there is another sign to distinguish waw conjunctivum from waw conversivum: when they have a waw conjunctivum they generally have a penultimate accent, which is the rule without the waw, as wʾ klṭ hʾ ṣḥyw (‘and I ate:QTL:1S the sin-offering today,’ Lev 10.19), wdbṛṭ ’l hḥbʾ yṃ (‘I spoke:QTL:1S by the prophets,’ Hos 12.11). They are pasts since the accent is penultimate but with waw conversivum the accent generally turns to ultimate as wšmr’t kl lywm (‘and you will keep:WQTL:2MS all his statutes,’ Exod 15.26), wdbṛṭ mṣṭy etc. (‘and I will speak:WQTL:1S my judgment . . .’ Jer 1.16). (text from Leo 1818:226; translation mine)

Alongside the prevalent waw conversive theory were a variety of absolute-relative tense theories in the early nineteenth century. These theories explained qatal and yiqtol as absolute tense: qatal is past tense, and yiqtol is future. The waw-prefixed forms, on the other hand, were treated as relative tense. N. W. Schroeder’s grammar, first published in 1766, presents one of the earliest expositions of a relative tense understanding of wayyiqtol and weqatal.

Praeter varios hosce usus, futurum habet adhuc alium plane singularem, et Hebraeis peculiarem, quod illud vim accipit nostri praeteriti, et rem revera praeteritam designat, non tamen per se, et absolute, sed in relatione ad praecedens aliquid praeteritum, spectatam. Quanto enim diversae res factae, quae continua quadam serie aliae alias exceperunt, narrandae sunt, Hebraei primam quidem per praeteritum, alias autem subsequentes, quas, ratione praecedentis, tanquam futuras considerant, per futurum expriment. Hoc itaque, quia id, quod in relatione ad aliam rem praeteritam posterius et futurum fuit, notat futurum relativum dici potest. (1824:239–40)⁵

Explanations like this were duplicated in subsequent grammars (see McFall 1982:22).

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⁵Translation: Apart from these various usages, the Future [yiqtol] has yet another, unique and peculiar to the Hebrews, in that it receives the force of our Past, and designates a matter as truly past; not however by itself nor absolutely, but it is viewed in relation to some preceding past event. When different events are to be narrated that follow the one from the other in some kind of continuous series, the Hebrews consider the first as past, the others, however, that follow, as future on account of the preceding. Consequently, this describes something that, in relation to another past event, is itself later and future; it may be called the Future relativum.
McFall in his survey distinguishes between “waw relative” theories such as Schroeder’s, and “waw inductive” theories, exemplified by John Bellamy’s understanding of the waw-prefixed forms. While Bellamy followed the standard relative tense explanation for wayyiqtol, he understands weqatal as essentially tenseless; its semantic value is conveyed or “inducted” from the initial yiqtol form through the waw.

When a verb written in the future tense [yiqtol] at the head of a subject precedes a verb in the preter tense [qatal], which has the vau [waw], prefixed with the vowel Sheva, then the future time of the first verb is connected by the vau [waw], and carried to the following verb in the same proposition, though written in the preter form; because it describes an action that takes place future to the verb at the beginning of the subject. (1818:xxxvi–xxxvii)

Philip Gell advanced a more thorough-going waw inductive theory the same year as Bellamy’s, and coined the name of the theory.

When Verbs are connected in Hebrew (the connexion being generally indicated by the sign v prefixed to the latter), the Power, whether temporal or modal, of the first or Governing Verb is communicated from it, and inducted into the Verb following. And whatever be the power proper to the latter Verb, it still retains its use subordinately; but that which is inducted becomes the prevailing power. If a third Verb follow in connexion, and so on, the power communicated from each successive Verb to that next following, without destroying its proper subordinate power, is the same as was previously inducted into the former. (1818:8; quoted in McFall 1982:25)

2.2.2 Heinrich Ewald’s ‘Standard’ Theory

Heinrich Ewald (1803–1875) is generally regarded as the first scholar to propose an aspectual theory of the BHVS (Waltke and O’Connor 1990:463). McFall, however, states that Johann Jahn (1750–1816) was the first to apply the Latin terms perfectum and imperfectum to the Hebrew verb: “Aoristus primus [qatal] sistit rem perfectam, jam praesentem, jam praeteritam, jam futuram. Aoristus secundus [yiqtol] sistit rem imperfectam, jam praesentem, jam praeteritam, jam
futuram” (from his 1809 Grammatica linguæ Hebraeæ; McFall 1982:44). Ewald initially, in his 1828 grammar, referred to the qatal and yiqtol simply as I and II Modi (‘mood’ or ‘mode’) in order to distinguish his conception of the Hebrew (and Semitic) verb from the tense theories of his day. In his later works, beginning with the 1839 edition of his Arabic grammar he replaced these with the terms perfectum and imperfectum in reference to the Arabic cognate forms qatala and yaqtulu (1870:350; 1879:3).

Despite the possibility that the application of the terms perfectum and imperfectum to Biblical Hebrew did not originate with Ewald, his presentation of an aspectual theory of the BHVS was the most persuasive at the time. The pervasiveness of Ewald’s conception of the BHVS is apparent in the still current use of the terms perfect and imperfect for the qatal and yiqtol as well as the common use of the term waw-consecutive in reference to the wayyiqtol and weqatal forms—a label which Ewald’s theory no doubt helped popularize (1847:385; 1879:8).

Nevertheless, DeCaen has recently protested the usual interpretation of Ewald’s theory, claiming that it involves relative tense rather than aspect (1996:132). DeCaen claims that the perception of Ewald’s theory as aspectual derives from a mistranslation of a key introductory statement in Ewald’s grammar (1996:134). The passage reads: “Die einfachste unterscheidung der zeit des handelns ist aber die daß der redende zunächst nur die zwei großen gegensäze unterscheide unter denen alles denkbare handeln gedacht werden kann” (1870:349). James

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6Translation: The first aorist presents a perfect thing, whether present, or past, or future. The second aorist presents an imperfect thing, whether present, or past, or future. (Aorist is used here in the general sense of “indeterminate”.) Waltke and O’Connor mistakenly attribute this quote to Ewald’s Hebrew grammar of 1827 (Kritische Grammatik der hebräischen Sprache) (1990:463). Whether Ewald relied on Jahn for his terminology or arrived at it independently is uncertain since Ewald does not identify a source, though Samuel Lee accused Ewald of plagiarism in this regard (see McFall 1982:44).

7According to Driver ([1874] 1998:72) the term waw consecutive was first suggested by Böttcher in 1827.
Kennedy in his 1879 English translation renders the passage: “But the simplest distinction of time in an action is, that the speaker first of all merely separates between the two grand and opposite aspects under which every conceivable action may be regarded.” (Ewald 1879:1, emphasis mine). 8

Despite the absence of any term for aspect (Zeitart, Aspekt, or Aktionsart) in the German editions of Ewald’s grammar, Kennedy’s interpretive liberty with the German text represents a correct understanding of Ewald’s theory. Whether or not Ewald labeled it as such, his theory is aspectual in its treatment of the qatal : yiqtol opposition. Evidence of Ewald’s aspectual understanding of the qatal : yiqtol pair appears in his statements describing their opposition, the source of his theoretical framework, and the evolution of his terminology for the pair.

Ewald’s description of the qatal : yiqtol opposition make it clear that he understood them as aspectual even though he did not label them as such. In one place he stated, “So faßt denn der redende in beziehung auf das handeln alles entweder als schon vollendet und so vorliegend, oder als unvollendet und nochnichtseind möglicherweise aber werdend und kommend auf” (1870:349). 9 Further on he wrote: “Da also die begriffe des vollendeten und unvollendeten nach der kraft und freiheit der einbildung auch beziehungsweise (relativ) só gebraucht werden können daß der redende, in welchem der drei reinen zeitkreise (vergangenheit, gegenwart, zukunft) er eine handlung sich denken mag, sie da entweder als vollendet oder als werdend und kommend

8DeCaen claims that the term *aspect* was first introduced into Western grammar by Georg Curtius’ in his study of the Greek verb (1846) (1996:134); however, Binnick cites Jacob Grimm (1785–1863) as the first to extend the idea of aspect to non-Slavic languages, namely, Germanic (1991:141) (cf. chap. 1, n.12).

9“Hence, with reference to action, the speaker views everything as either already finished, and thus before him, or as unfinished and non-existent, but possibly becoming and coming” (1879:1).
DeCaen has identified the Stoic-Varronian tense-aspect theory of Latin as the source of Ewald’s conception of a binary opposition: “Thus there is no real mystery as to the formal and semantic theory forming the massive substratum of Ewald’s work. Of course the source is Latin, at least in the first instance: and in particular, the Stoic-Varronian interpretation of the Latin paradigm” (DeCaen 1996:138). The Stoic-Varronian theory, as explained in chapter one (table 1.2, repeated in table 2.2), defines the Latin verb forms according to the parameters of tense and aspect. Ewald, however, eschewed the tense parameter since BH has only two primary verb forms; he adopted only the early aspectual conception of complete and incomplete from the Stoic-Varronian model as the distinguishing feature in the qatal : yiqtol opposition.

<table>
<thead>
<tr>
<th>Aspect/Time</th>
<th>Past</th>
<th>Present</th>
<th>Future</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incomplete</td>
<td><em>amabam</em> (Imperfect)</td>
<td><em>amo</em> (Present)</td>
<td><em>amabo</em> (Future)</td>
</tr>
<tr>
<td></td>
<td>‘I was loving’</td>
<td>‘I love’</td>
<td>‘I shall love’</td>
</tr>
<tr>
<td>Complete</td>
<td><em>amaveram</em> (Pluperfect)</td>
<td><em>amavi</em> (Perfect)</td>
<td><em>amavero</em> (Future Perfect)</td>
</tr>
<tr>
<td></td>
<td>‘I had loved’</td>
<td>‘I have loved’</td>
<td>‘I shall have loved’</td>
</tr>
</tbody>
</table>

Ewald’s eventual use of the terms *perfectum* and *imperfectum* for qatal and yiqtol appears to confirm the connection with the Stoic-Varronian theory. Ewald explains the intended sense of his choice of the terms *perfectum* and *imperfectum*: “. . . diese namen aber nicht in dem engen sinne der Lateinischen grammatik sondern ganz allgemein verstanden” (1870:350).11 McFall explains that by “allgemein” Ewald presumably meant their etymological meaning of complete

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10 “Since, therefore, in virtue of the power and freedom accorded to the imagination, the ideas of completeness and incompleteness may also be used relatively, in such a way that the speaker, in whichever of the three simple divisions of time (past, present, or future) he may conceive of an action, can represent it either as complete, or as going on and coming” (1879:3).

11 “—understanding these names, however, not in the narrow sense attached to them in Latin grammar, but in a quite general way” (1879:3).
De Cae n’s disagreement is with the aspectual interpretation of the Stoic-Varronian model of the Latin verb (Robins 1997:65) more than with Ewald’s interpretation of the BHVS: the imperfectum (infectum) vs. perfectum distinction in the Stoic-Varronian model “appears to answer to ‘relative tense’” (DeCaen 1996:139). This claim, however, is not supported by Ewald’s exposition of the BHVS, nor does DeCaen make any reference to Ewald in his ensuing speculative discussion (1996:139–40). There is no hint in Ewald’s grammar that he wants to parallel the BH verb forms with the Latin stems; rather, DeCaen’s view relies on reading more into Ewald’s statements than a plain reading, such as McFall has provided (1982:44, quoted above), demands.¹²

Ewald’s theory, therefore, is properly understood as an early aspectual type. By “early” I mean to distance Ewald’s concept of aspect from the more recent and well-refined universal theories about aspect that distinguish perfective and imperfective from the misleading ideas of complete(d) and incomplete(d). DeCaen argues against this interpretation on the basis that Ewald’s theory, understood aspectually, is not compatible with the aspectual character of Slavic

¹²DeCaen’s disagreement is with the aspectual interpretation of the Stoic-Varronian model of the Latin verb (Robins 1997:65) more than with Ewald’s interpretation of the BHVS: the imperfectum (infectum) vs. perfectum distinction in the Stoic-Varronian model “appears to answer to ‘relative tense’” (DeCaen 1996:139). This is a gratuitous assumption not made by other scholars who, nevertheless, disagree with the aspectual interpretation of the Stoic-Varronian model (see Binnick 1991:20–26).

DeCaen’s argument is problematic on other grounds. He accuses Ewald of a “morphocentric fallacy” (1996:137) by excluding qotel from his theory. However, DeCaen appears to commit the opposite error, which we may term the “ontological fallacy,” by assuming that because philosophically three times are recognized, all languages must have three corresponding tense forms (1996:136n.20). DeCaen’s accusation that Ewald was misled by German romanticism is likewise unconvincing (1996:140–41); if there was an insidious strain in Ewald’s treatment of the BHVS that sought to distance it from the Indo-European verbal system, there must have been a more successful way of accomplishing this than analogizing the Hebrew verb with Latin!
and predates Curtis’ aspectual analysis of Greek (1996:132, 134). However, linguistics now recognize that the aspectual opposition perfective : imperfective functions in many languages of the world, and the Stoic-Varronian theory demonstrates that since ancient times a concept of aspect existed among the classical grammarians, albeit described in different terms (see 1.1).\textsuperscript{13}

Although Ewald referred to the aspectual pair in temporal terms, he understood the forms to intersect all three times—past, present, and future: “und auf dem grunde dieser allereinfachsten zeitunterscheidung [i.e., vollendet : unvollendet] sind eine menge feinerer unterscheidungen und gebilde möglich” (1870:350).\textsuperscript{14} Ewald’s taxonomy of \textit{qatal} includes its use to designate (1) simple past, (2) past in the past (pluperfect), (3) past in the future (future perfect), (4) present, (5) present perfect, and (6) past conditional (1879:3–7). His list of meanings for \textit{yiqtol} includes (1) future, (2) present durative, (3) past, (4) present habitual, (5) past habitual, (6) past conditional, and (7) jussive mood (1870:350–58; 1879:7–13).

Ewald treated more than just the \textit{qatal} : \textit{yiqtol} opposition, however. Altogether he recognized \textit{six} distinct tenses: two \textit{simple} tenses (\textit{qatal} and \textit{yiqtol}), two \textit{modified} tenses (\textit{wayyiqtol} and \textit{weqatal}), and two \textit{reduced} tenses (\textit{waw} plus \textit{qatal} or \textit{yiqtol}). The “reduced tenses” are the late forms that arose out of the “aufgelöst” (“dissolution”) of the modified forms in Late Biblical Hebrew (1870:842; 1879:249). The semantic value of \textit{waw} in both the modified forms and the reduced forms is that of \textit{sequence} or \textit{consecution} of time (1879:244), including the stronger notion of \textit{consequentiality} (1870:841–42; 1879:247–48; see Waltke and O’Connor

\textsuperscript{13}DeCaen’s objection is partially based on his incorrect claim that the concept of aspect was absent from Western linguistics until Curtis’ work on Greek (see note 8, above).

\textsuperscript{14a}and, on the ground of this most simple distinction of time a multitude of finer distinctions and forms can be made” (Ewald 1879:3).
Despite Ewald’s sometimes insightful treatment of the modified (waw-prefixed) forms, it is also at this point that Ewald’s aspectual approach broke down. He recognized that wayyiqtol differed from yiqtol in its use of an apocopated form of the verb (e.g., wayyiben vs. yibneh ‘build’), formally equivalent to the “voluntative” (Jussive) (1879:19), and proposed that the unique pointing of the waw is due to the assimilation of the adverb ‘āz (‘then’) between the waw conjunction and verb (1870:593; 1879:19; cf. other theories in McFall 1982:217–19). Similarly, he noticed the accentual difference between qatal and weqatal—the latter often being accented on the ultimate syllable in the second person masculine singular and first person singular forms (wēqāṭaltāl-ī vs. qāṭaltāl-ī) (1870:600; 1879:23). But despite these distinctions, Ewald could not avoid seeing in the strong formal correspondence between wayyiqtol and yiqtol, on the one hand, and weqatal and qatal, on the other, a semantic connection.

At the same time, despite the fact that Ewald gradually distanced himself more and more from tense theories of the BHVS, he could not completely escape the influence of the relative tense explanation of the waw-prefixed forms, so popular in his day (2.2). Yet while he continued to refer to wayyiqtol and weqatal as “bezüglicher zeiten und modi” (“relative tenses and moods”) (1870:593; 1879:18), Ewald’s explanation is perhaps better termed relative aspect.
anmuthig ein jedes von dem wechsel seines gegensazes durchkreuzt wird. (Ewald 1870:594, 600)

2.2.3 Samuel R. Driver’s ‘Extended Standard’ Theory

While the effect of S. R. Driver’s theory on later discussion of the BHVS is immense (especially among English-speaking students and scholars), its originality and value have been questioned. A fairly typical portrait of Driver is that he “popularized” Ewald’s theory (McFall 1982:76). A more negative assessment is that he represented a setback with respect to Ewald’s theory (Waltke and O’Connor 1990:464). Both these portrayals have an element of truth, but they are also oversimplifications.

Driver’s theory, like Ewald’s, starts with an analysis of the opposition between qatal and yiqtol. However, Driver’s conception of the system as a whole entails a three-fold contrast between qatal, qotel, and yiqtol. In contrast to the earlier tense systems (2.2), which coordinated these three forms with the three ontological times—past, present, future—Driver interpreted them aspectually. Driver built his theory on two claims: first, that the Hebrew verb designates “kind of action,” not the time of the action (i.e., aspect and not tense); and second, that the three kinds of action in BH, construed “according to the particular point which he [the speaker] desires to make prominent,” are complete, continuing, and incipient ([1892] 1998:2). He asserts that “upon these two facts the whole theory of the tenses has to be constructed” ([1892] 1998:5).

---

15a But as, in creation, through the continual force of motion and progress, that which has become, and is, constantly modifies its form for something new; so, in thought, the new advances which take place (and thus, then) suddenly changes the action which, taken by itself absolutely, would stand in the perfect, into this tense, which indicates becoming—the imperfect. . . . As, therefore, in the combination previously explained [i.e., wayyiqtol], the flowing sequence of time or thought causes that which has been realized, and exists, to be regarded as passing over into new realization; so in the present case [i.e., weqatal], it has the effect of at once representing that which is advancing towards realization, as entering into full and complete existence. Hence, each of the plain tenses gracefully intersects the other, by interchanging with its opposite” (1879:20, 22–23).
The greatest point of interest, as well as confusion, in Driver’s theory is his description of the *yiqtol* as denoting *incipient* action. In addition to *incipient*, Drive employed numerous other terms to describe the form’s aspectual value: *imperfect* (in the etymological sense), *ergressive*, *nascent*, *progressive continuance*, *inchoative*, and *incomplete* ([1892] 1998:1n.1, 2n.1, 5, 27, 119). This terminological variety leads one to suspect that Driver himself had trouble subsuming all the variegated uses of the *yiqtol* under a single semantic heading. This suspicion is confirmed by Driver’s statement that, “an idea, however, like that of *nascency*, *beginning*, or *going to be* is almost indefinitely elastic” ([1892] 1998:29). In light of this confusion, it is helpful to examine the theoretical inspiration of Driver’s theory—Georg Curtis’ model of the Greek verb (1846, 1863, 1870).

Curtis’ model of the Greek verb identifies the Present stem as denoting “dauernd” (‘continuous’) action, and the Perfect stem as denoting “vollendet” (‘completed’) action, and the Aorist stem as denoting “eintretend” (entering) action (1863:173; 1870:205). Driver’s model lines up with Curtis’ as shown in table 2.3.

<table>
<thead>
<tr>
<th>Greek stem:</th>
<th>Aorist aspect:</th>
<th>Present aspect:</th>
<th>Perfect aspect:</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>yiqtol</em></td>
<td>entering/nascent</td>
<td>durative/continuing</td>
<td>completed</td>
</tr>
<tr>
<td><em>qotel</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>qatal</em></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It appears, as DeCaen observes, that Driver’s difficulties with the *nascent* label for *yiqtol* stems from Curtis’ recondite use of the term *eintretend*. DeCaen explains that Curtis was “playing on the slippery ambiguity of the German *eintretend*, which indicates both entry as beginning as well as entry as an end-point” (1996:144). Curtis’ own explanation of *eintretend* is no more clear than Driver’s use of *nascent*:
The word ‘momentary’ opens a door to numerous errors. If this term is chosen, we are tempted to measure the distinction between ποιεῖν [Present] and ποιεῖσθαι [Aorist], νικάν [Present] and νικήσατι [Aorist], ἔβαλλε [Imperfect] and ἔβαλε [Aorist] merely by lapse of time, whereas in reality the distinction is quite different and far deeper. . . . I preferred, therefore, to adopt the terminology of Rost and Krüger, who call the aorist ‘eintretend’. The epithet is difficult of translation, and cannot be represented in all its bearings by any single English word. It is ‘initial’ as opposed to ‘continued’, ‘culminating’ as opposed to ‘preparatory’, ‘instantaneous’ as opposed to ‘durative’. An action so qualified is, first of all, quite distinct from a beginning or impending act; it has nothing in common with the tempus instans with which it has sometimes been confounded. On the contrary, it is opposed to two other actions. First, to a continuing act. Thus the advent of winter is opposed to its continuance. . . . Secondly, as denoting an incident, it is opposed to an act that is not yet finished. . . . Lastly an act to which this epithet is applied, is invariably an act achieved at one blow, or an act the single moments of which are not to be taken into account. (1870:205–206)

Despite Driver’s apparent difficulties in adapting Curtis’ concept of eintretend to yiqtol (see Driver’s terms, listed above) and his inclusion of qotel in his analysis, Driver did not present an appreciably different taxonomy for qatal and yiqtol than Ewald’s. The qatal can designate (1) simple past, (2) present perfect, (3) performative, (4) gnomic, (5) future (so-called prophetic future). The yiqtol may designate (1) historical present, (2) present progressive, (3) future, (4) gnomic, (5) volitive, (6) conditional ([1892] 1998:chaps. 2–3). In addition, like Ewald, Driver was unable to carry through an aspectual interpretation with regard to the waw-prefix verb forms. In the case of wayyiqtol, Driver offered an explanation similar to Ewald’s (above): “The imperfect [yiqtol] represents action as nascent: accordingly, when combined with a conjunction connecting the event introduced by it with a point already reached by the narrative, it represents it as continuation or development of the past that came before it. [wayyō’mer:WAYY] is thus properly not and he said, but and he proceeded-to-say” ([1892] 1998:71–72). Driver understood wayyiqtol as relative-aspect, in a manner similar to Ewald: each wayyiqtol temporally places an (incipient) event at the point that the preceding verb has determined. McFall points out the obvious weakness in this approach: one must assume not only that wayyiqtol indicates the
incipience of each event, but also its completion before the next wayyiqtol, otherwise “there would be considerable over-lapping of ideas” (1982:72).

However, Driver differed from Ewald with regard to his explanation of the shape of wayyiqtol. While Ewald identified the form wayyiqtol with the apocopated “voluntative” (Jussive) form (1870:19n.2), Driver dismissed the similarity as coincidental: the shortened form of the verb is attributable to the unique form of waw conjunction (wa-) on the wayyiqtol ([1892] 1998:77–78). This judgment opened the way to the twentieth-century theories based on comparative data that have, likewise, argued that the similarity in form between the Jussive and wayyiqtol is not indicative of a semantical connection (see 2.3.1).

Another departure from Ewald is Driver’s use of the earlier waw inductive theories in his treatment of weqatal (2.2.1). By adopting an inductive explanation Driver was able to explain the use of the weqatal after both indicative yiqtol and modal verb forms: “To all intents and purposes the perfect [qatal], when attached to a preceding verb by means of this waw consecutive, loses its individuality: no longer maintaining an independent position, it passes under the sway of the verb to which it is connected” ([1892] 1998:118).

2.2.4 Summary

All subsequent theories about the BHVS have been presented against the backdrop of the Ewald-Driver ‘standard’ aspectual theory, which has had a greater influence than any other single theory about the BHVS. Despite some dissension (Fensham 1978, DeCaen 1996), Ewald’s theory is properly interpreted as aspectual; however, his understanding of aspect, like the classical aspectual theories, has to do with the simplistic notion of completion. He popularized the labels
perfect and imperfect for *qatal* and *yiqtol*, and popularized the term *consecutive* for the *waw*-prefixed forms. Driver retained these labels, albeit offering a different understanding of *yiqtol*, and extended Ewald’s analysis by attaching a general term to the two “modes”: kind of action (*Zeitart*). It is both a tribute to Ewald’s theory, as well as an indication of the superficial (and confusing?) application of the idea of *incipiency* in Driver’s theory, that so many subsequent scholars have viewed Driver as an English version of Ewald’s aspectual theory.

In addition, Driver made two other contributions in his extension of Ewald’s standard theory. First, he included *qotel* in his system. Although the participle has been largely ignored in the century following Driver, it is once more being recognized as important for understanding the BHVS (e.g., Hoftijzer 1991; Joosten 1989). Second, Driver began the process of separating the *wayyiqtol* and apocopated *yiqtol* or Jussive by arguing that their morphological similarity is not etymologically or semantically relevant.

Neither Ewald nor Driver, however, was able to progress beyond the early nineteenth-century explanations of the *waw*-prefixed forms. Despite their aspectual treatment of the BHVS, they fell back on explanations similar to the relative tense and *waw* inductive theories from the early part of their century in order to explain the semantics of *wayyiqtol* and *wegatal*.

### 2.3 Contributions of Historical-Comparative Studies

The steadily advancing knowledge about the ancient Semitic languages and their interrelationships has affected theories of the BHVS in some important ways. In particular, there three key developments in the study of Semitic languages have influenced the developing theories of the Semitic verb and the BHVS. The earliest was the decipherment of Akkadian in the mid-
nineteenth century. By the close of the century, the impact of this newly-discovered Semitic language was being increasingly felt as it displaced Arabic in the estimation of many scholars as the most “unadulterated” of the Semitic languages.

The second important development was the discovery in 1887 of a cache of Akkadian diplomatic correspondence at Tell El-Amarna, the capital city and residence of Amenhotep IV (or, Akhenaten) (ca. 1377–1366 B.C.E.). Overall, 336 letters were discovered, the majority of which were from vassal city-states in the Levantine region. The influence of the native language of the Canaanite scribes evident in the Akkadian correspondence has made the letters an important source of information about the Canaanite language from this period.

The third development was the discovery, beginning in 1929, of a vast collection of alphabetic cuneiform texts from Tell Ras Shamra, ancient Ugaritic, on the Mediterranean coast of Syria. The collection includes not only diplomatic correspondence but also literary texts from the fourteenth to the twelfth century B.C.E., and, as such, is the second largest collection of Northwest Semitic literature next to the Bible.

2.3.1 The Relationship between East and West Semitic

The decipherment of Akkadian in the nineteenth century quickly led to a lengthy, and sometimes heated, debate about Akkadian’s relationship with the other Semitic languages and with Proto-Semitic—the hypothetical construct of features etymologically common to all Semitic languages. The discussions were spurred by the peculiarities of Akkadian (East Semitic) compared especially with West Semitic. Akkadian has no conjugation corresponding to the West Semitic active *qatala (BH qatal) but does have a Verbal Adjective qatil form (e.g., kabid ‘he/it
is/was heavy’), which may be inflected similarly to the West Semitic *qatala.\(^{16}\) On the other hand, West Semitic apparently has nothing corresponding to the Akkadian Present prefix conjugation igattal, which, nevertheless, has a corresponding form in the South Semitic Ethiopic yeqattel form. Finally, most striking was the discovery of the prefixed Preterite iqtul form in Akkadian—a prefixed verb formally cognate with BH yiqtol or Jussive but with a past meaning.

Attempting to incorporate the newly discovered data from Akkadian, Paul Haupt argued that the geographic and temporal distance between Ethiopic and Akkadian was such that any verb forms that they had in common should be taken as Proto-Semitic. On this basis he identified as the most ancient verb form the “imperfect” verb, realized in Akkadian as iqattal and Ethiopic as yeqattel (Haupt 1878:244). This and claims by other scholars, which implicitly favored Akkadian over Arabic as representative of the oldest stages of the Semitic languages, was upset by Theodore Nöldeke in his encyclopedia article on Semitic. There he argued that the West Semitic *qatala had disappeared from Akkadian, thus disregarding arguments for the antiquity of Akkadian. He stated that the claim that Akkadian was the “Sanskrit of the Semitic world,” was “unworthy of serious refutation” (Nöldeke 1886:642). Nöldeke’s comments spurred an immediate response and an ensuing controversy over which of the Semitic languages is the earliest. G. Hoffman questioned Nöldeke’s judgment on *qatala: “Bedeutet es Verlust, wenn das Babylonische kein postfigiertes Perfekt [*qatala] kennt, oder ist dieses Perfekt schon in Kanaan eine Neubildung vom Participl-Adjektive [*qatil] aus?” (1887:605). Bauer cites similar remarks defending the antiquity of Akkadian by J. Wellhausen, F. Prätorius, and R. E. Brünnow

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\(^{16}\) In order to make the cognates apparent, the root qtl is used in discussing Akkadian as well as West Semitic verb forms; in Akkadian studies, however, other roots are often used such as prs (e.g., paris, iprus, etc.).
and H. Zimmern (1910:6).

Trying to rectify the Akkadian Verbal Adjective *qatil*, Preterite *iqtal*, and Present *iqattal* with the West Semitic binary opposition *qatala* (BH *qatal*) and *yaqtul(u)* (BH *yiqtol*, Jussive, *wayyiqtol*), J. A. Knudtzon (1892) appears to have been the first to entertain the idea that the West Semitic *qatala* and *yaqtul(u)* might be mixed forms. He argued that the Akkadian Present *iqattal* was the earliest form, followed closely by the Preterite *iqtal*. These two forms coalesced in the West Semitic *yaqtul(u)* form, though their different TAM values were still preserved. Similarly, alongside the adjectivally derived *qatil* an active suffix verb developed from a nomen agentis (nominal verb). Both the stative and active sense were preserved in the West Semitic *qatala*.

Against the backdrop of this debate over the oldest verb form in Semitic, Hans Bauer presented his influential theory of the development of the Semitic verb. Bauer claimed that the most primitive form of the verb in Semitic is the imperative-infinitive *q(u)tul* pattern. To this form were added primitive pronominal prefixes (*ya-, *ta-, *'a-, *na-*) to create a universal verb form, to which neither the expression of “‘subjektive’ Zeitstufe” (= aspect) nor “‘objective’ Zeitmoment” (= tense) can be assigned (1910:10). Bauer fittingly called this form “aorist” (1910:24; Bauer and Leander [1922] 1962:269). The temporal functions of this “aorist” form were subsequently limited by the development of the conjugated verbal noun *qatalá*, created by suffixing personal pronouns to a verbal noun form. While this new conjugation could signify the sense of either a past or present participle, depending on the lexical semantics of the verb, it initially functioned primarily with the sense of a present participle (1910:16–17). Thus, just prior to the East-West split (leaving aside the modal and non-finite forms) Semitic had two main verb
forms: the younger *qatalá form, which functioned as a present participle, and the older *yáqtul universal verb form, which was now limited by *qatalá to primarily a past time narrative function.

These two forms subsequently developed in East Semitic, as attested in Akkadian, into the Preterite (*yáqtul > iqtul) and the Present (*qatalá > iqattal), in which the pronouns came to be prefixed instead of suffixed. In West Semitic, however, the forms underwent a further shift:

In den westsemitischen Sprachen hingegen hat die Form qatala eine Weiterentwicklung erfahren, wodurch die gesamten Tempusverhältnisse völlig umgestaltet wurden. Hier ist nämlich die in Wörtern wie “Täter, Sieger, Mörder” liegende perfektische Bedeutung der Nominalform qatal zum Durchbruch gekommen und fast auf den ganzen Verbalbestand übertragen worden. Dadurch wurde die Form in derselben Weise geeignet, als Tempus der Erzählung zu dienen, wie das Perfektum unserer Sprachen; jaqtul ward infolgedessen seiner erzählenden Funktion enthemt und auf seine sonstigen, nicht genau umschriebenen Verwendungen eingeschränkt, die wir annähernd als die einigen Participlum praesentis entsprechenden bezeichnen können. Die beiden Verbalformen haben, wie man sieht, gegenüber dem Ursemitischen ihre Rollen nahezu vertauscht. (1910:18)

This shift, however, did not eliminate the earlier values of the verbs, and thus, it essentially created two new forms alongside the older ones. The forms were differentiated by the placement of word stress and, by the stage of BH, the prefixed waw on the older forms. However, the waw is sometimes absent in poetic material (e.g., prophetic perfect, prefix preterite) and, in the case of *yáqtul, also after certain particles: ’áz (‘then’), teřem (‘before’), ’ad (‘until’) (Bauer 1910:35).

Bauer’s model of the BHVS is presented in table 2.4.

<table>
<thead>
<tr>
<th>Alter Stil</th>
<th>Neuer Stil</th>
</tr>
</thead>
<tbody>
<tr>
<td>*qatalá (&gt; weqatal)</td>
<td>*qatâla (&gt; qatal)</td>
</tr>
<tr>
<td>(participium praesentis)</td>
<td>(participium perfecti)</td>
</tr>
<tr>
<td>*yáqtul (&gt; wayyiqtol)</td>
<td>*yaqtûl (&gt; iqtol)</td>
</tr>
<tr>
<td>(participium perfecti)</td>
<td>(participium praesentis)</td>
</tr>
</tbody>
</table>

The single most important contribution of Bauer’s theory is his correlation of BH wayyiqtol with the Akkadian Preterite iqtul. Although the Akkadian iqtul has a consistent past meaning (see Leong 1994:150), Bauer explained the semantics of BH wayyiqtol in terms of its etymology:
**wayyiqtol** ist eben wie das protosemitische jaqtul zeitlos und kann daher alle Zeitmomente enthalten, die überhaupt bei einem mit ‘und’ angeknüpften Verbum denkbar sind, also Gegenwart, Vergangenheit, Zukunft, wie der jedesmalige Zusammenhang es verlangt” (1910:27). In contrast, Bauer’s conclusions about *qatal* are more problematic. His correlation of Hebrew *qatal* and Akkadian *iqattal* is no longer accepted. Rather, *qatal* is now generally understood as etymologically related to the Akkadian Verbal Adjective *qatil* (e.g., Brockelmann 1951:141; Kienast 2001:293). The effect of Bauer’s criticism of Driver (1910:23–25) and his interpretation of the BHVS as a mixed tense system presented a formidable competing approach to the Ewald-Driver standard aspectual theory.

G. R. Driver responded to Bauer’s study with a theory that arrives at the same basic conclusion, but proposes a different diachronic path: in contrast to Bauer’s identification of *

*q(u)tul/*yaqtul as the most primitive verb form, Driver theorized that *qatil* is the earliest, universal verb form. However, this form was “used for the most part to describe a state which of necessity contains within itself, even at the moment of speaking, a past element” (1936:80). Therefore, the Semitic languages developed other forms to compensate for the deficiencies in the *

*qatil* form: West Semitic developed the *

*qatala* form to express completed events in the past, and East Semitic (Akkadian) developed the Present *iqattal*. Subsequently, the prefix *

*yaqtul(u)* form developed with complementary senses in each branch: it expressed incomplete action in West Semitic to complement *

*qatala*, and past action in East Semitic to complement the Present *iqattal* (Driver 1936:83).

Thus Driver concluded like Bauer (see table 2.4) that the two major conjugations *qatal* and *yiqtol* in BH each represent two distinct verb forms that were at one time distinguished not only
by context but accent: *qátal (universal) versus *qatál (complete-past) and *yáqtul (jussive/preterite) versus *yaqtúl (incomplete):

Hebrew fully developed qat̪al as a transitive form distinguished only by a change of vowel from qat̪el which became tolerably rare and was restricted almost exclusively to stative verbs; in consequence of this development qat̪al became a tense descriptive of completed action in past time, but this did not prevent it from retaining a certain amount of the universal force of the primitive qat̪il out of which it had been evolved. Thus qat̪al continued or rather came to be employed as a present tense in gnomic sentences and in legal or semi-legal phrases which are both apt to be survivals from an older stage of the language. At the same time it preserved the future sense of the old universal qat̪il (which also the Accadian permansive state of the same form still in some degree retained), though only in poetry which is wont to preserve archaistic usages, in the prophetic language, which is in its very nature poetical, and in prose when marked by certain safeguards, namely with consecutive wāw and certain other particles. Similarly too, although the development of qat̪al as a tense describing completed action in past time caused yiqtol (after the failure to develop qaqt̪il in Hebrew) to become the tense of every kind of incomplete action, relics of the purely preterite use of the primitive yaqtul (as exemplified in the Accadian preterite iq̪tul) survived in Hebrew sporadically in poetry and normally also in prose after certain particles [i.e., after ’az, terem, and in wayyiqtol]. Again, it is poetry which tends to preserve or to affect archaic language and the fact that yiqtol was intelligible as a preterite, like qat̪al as a future, tense only when it was definitely so marked suggests that it too was a survival from a long-forgotten stage of Semitic speech. (Driver 1936:88–89)

Driver’s student, T. W. Thacker (1954), added little to Driver’s theory of the Semitic verb, except to expand the investigation to include comparison between Semitic and Egyptian.

Recently the Bauer-Driver approach of a Mischesprache has been taken up again by T. David Andersen. Alongside the now widely accepted view of separate origins for wayyiqtol and yiqtol, Andersen claims that weqatal and qatal also have separate paths of development from the Proto-Semitic *qati/ala verbal adjective/nominal form: with activity verbs the conjugation had a progressive value, which developed into the imperfective weqatal in BH; with achievement and accomplishment verbs the conjugation had a resultative sense, which developed into the perfective qatal in BH (2000:41–42; see 1.3.2 for discussion of situation aspect). This argument, however, is problematic: first, it assumes weqatal is imperfective, which Andersen has not demonstrated; second, if there once existed a restriction to certain situation aspect types for qatal
and *weqatal*, it is no longer exhibited in the Biblical text. In any case, Andersen arrives at a conclusion similar to that of Bauer and Driver, speaking of an “archaic” preterite meaning for *yiqtol* and the “archaic” progressive, imperfective, and future meanings for *qatal* (2000:51–56) (see 3.3.3.1 for a thorough critique of Andersen’s ideas).

The importance of the studies of East and West Semitic with respect to the BHVS lies primarily in disabusing the notion that each form must correspond to only one meaning: the formal similarity between *yiqtol* and *(way)yiqtol* does not demand a conclusion that they are semantically or even etymologically related. Although the claim of separate origins for *yiqtol* and *wayyiqtol* has become almost universally accepted, the same argument with respect to *qatal* and *weqatal* has been largely rejected (but cf. Andersen 2001). Likewise, proposals that these pairs were originally distinguished by word stress position has been rejected (as have other attempts to discover morphophonemic stress in Semitic, e.g., Hetzron 1969).

Unfortunately, discussions of the semantics of the verbal forms in BH in the studies of East and West Semitic is generally insubstantial and vague. Bauer adamantly opposed the aspectual view popularized by S. R. Driver (1910:23–35), but his tense correlations of the BH forms to present and past participles is nowhere explicated or justified. By contrast, Driver and Thacker took an aspectual approach, predicated on the idea of completion. However, because they failed to disambiguate aspect from tense, their semantic labels often mix aspectual and tense concepts, e.g., past-completed events (Driver 1936:88; Thacker 1954:171).

### 2.3.2 The Canaanite Verb in the Amarna Letters

Despite the discovery of the Amarna letters having been over a half a century earlier,
“[William] Moran can truly be credited with discovering the Canaanite verbal system” (Rainey 1996:5). Moran made a syntactic study of almost seventy El-Amarna (EA) texts written at Byblos (1950). While syntactic, his study also explored the morphology and semantics of the early Canaanite verbal system. In particular, he outlined the various meanings of the West Semitic *qatala and identified five morphologically distinct prefix conjugations: *yaqṭul “indicative,” *yaqṭulun(n)a “indicative” energetic, *yaqṭul jussive, *yaqṭula “subjunctive,” and *yaqṭulan(n)a “subjunctive” energetic (Rainey 1996:8). Anson Rainey, in a series of articles and a major monograph, has followed up on the initial study by his mentor, Moran (Rainey 1973, 1975, 1986, 1988, 1990, 1991–93, 1996). Rainey has reconstructed six prefix patterns in the Canaanite verbal system, as shown in table 2.5, alongside the suffix form *qatala and Imperative.

<table>
<thead>
<tr>
<th>Indicative</th>
<th>Injunctive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preterite</td>
<td>*yaqṭul, -ū</td>
</tr>
<tr>
<td>Imperfect</td>
<td>*yaqṭulu, -ūna</td>
</tr>
<tr>
<td>Energetic</td>
<td>*yaqṭulan(n)a</td>
</tr>
</tbody>
</table>

The one difference between Rainey’s and Moran’s summary of the Canaanite verb is Rainey’s inclusion of the Preterite in his model. Although Moran noted the use of *yaqṭul for past, non-progressive action (1950:51), he concluded that the EA texts provided no real evidence of a preterite *yaqṭul in Canaanite (1950:126n.114); these were Akkadianisms (so Rainey interprets Moran’s conclusion, 1996:222). Rainey contrasts the Preterite *yaqṭul with Imperfect *yaqṭulu in the following passage in [2.9]:

17Note that the term volitive has come to stand for both directive and volitive deontic modalities in Semitic studies (see table 1.24); however, directive and volitive are distinguished in the discussion in chapter three.
The third person masculine plural form in EA is *taqtulu* (with a *t*-prefix instead of *y*- as in BH, and with a -na suffix, making it indistinguishable from the energetic pattern) (Rainey 1996:43–45; 235).

In his 1986 article Rainey points out that the Canaanite Preterite has come to be largely restricted to the “continuative” wayyiqtol form in BH prose (1986:5–6). Instances of yiqtol in poetry that demand a past tense, non-continuative, interpretation represent archaic uses of the preterite (e.g., Deut 32.8, 10, 11, 13) (1986:15).

In the EA texts the Imperfect *yaqtulu* expresses general future (tense) and durative (aspect) in present or past time. In past contexts the contrast between Imperfect *yaqtulu* and Suffix *qatala* is similar to the contrast between BH yiqtol and qatal in past contexts, as illustrated by the examples in [2.10a–b].

[2.10]  


‘Who are the sons of ‘Abdi-Ashirta, the slave, the dog? Are they the king of the Cassites and the king of Mitanni that they take (IMPF) the land of the king for themselves? Previously, they were taking (IMPF) over the towns of the city rules, and you kept silent (SUFF). Behold, now they have expelled (SUFF) your commissioner and have taken (SUFF) your towns for themselves. Behold, they have taken (SUFF) Ullasa. If you thus remain silent, they will take Šumur in addition and they will kill the commissioner and the auxiliary troops who are in Šumur.’ (EA 104:17–36; Rainey 1996:233; see Moran 1961:63)

b. *w’hinnēh qāmâ ˒ālummātī w’ggam- nissâbā w’hinnēh t’subbeynā* and-behold rise:QTL:3FS sheaf-my and-also stand:QTL:3FS and-behold surround:YQTL:3FP ˒ālummotēkem sheaves-your

‘And behold my sheaf rose and also stood and behold your sheaves were encircling (mine)’ (Gen 37.7)
Similarly, the Canaanite Jussive *yaqtul in the EA texts parallels the sense of the BH Jussive. However, the meanings of the Indicative and Injunctive Energic forms *yaqtulun(n)a and *yaqtulan(n)a are less clear in the EA texts and it is more difficult to find correspondences within BH. Rainey hypothesizes that “the [indicative] energetic is a strengthening of the imperfect. It does not seem to be compulsory in any syntagma, but rather serves as an optional means for strengthening the force of the verb” (1996:235). Despite his admittance that the evidence is scant, Rainey posits an Injunctive Energic *yaqtulan(n)a in his model based on its presence in Ugaritic and Arabic (1996:264). Both energetic forms—*yaqtulun(n)a and *yaqtulan(n)a—Rainey claims are preserved in BH in the energetic ending before suffixes (1986:10).

Finally, the EA Volitive *yaqtula is used to express a wish, request, or command. Moran had posited a correspondence between the EA Volitive and the BH Cohortative (1961:64), and Rainey has further posited a possible connection between the EA Volitive -a and BH Imperatives with a paragogic -â (1986:8). However, “it is abundantly clear that the EA texts have not given us any conclusive evidence for the existence of a Canaanite yaqtula pattern. In spite of Moran’s brilliant mustering of the evidence, it is still possible to argue that the -a suffix is merely the Akkadian ventive” (1996:262; see Rainey 1991–93; Gentry 1998).

The form that most interested Moran in his study, and occupies a great deal of space in Rainey’s monograph as well, is the *qatala Suffix conjugation. In particular, both Moran and Rainey became convinced that the evidence from the EA texts clearly demonstrates that the form is neither aspectual nor tensed. Moran wrote, “The perfect then says nothing of present, past, or future. It does not say whether the action or state be completed or not completed. It merely states the fact of the occurrence of the action or the existence of the state. We might call it a
tenseless aorist” (1950:36). More strenuously Rainey concludes his discussion with this statement:

Hopefully, this wide spectrum of usages and nuances in three time frames will finally convince one and all that the qtl conjugation pattern did not originate in an expression of completed action. On the contrary, the stative nuance, which certainly reflects the continuous and not the punctiliar, seems to be more ancient and original [see Driver 1936]. The adaptation of qtl forms for the transitive verbs apparently led to the past tense usage. The optative usage, probably originally frequent in wishes and affirmations, led to the various injunctive functions. The suffix conjugation pattern deserves to be treated in terms of its actual functions and not in terms of an outdated and unrealistic theory. A more inappropriate term than “perfect” could hardly be imagined! (1996:366)

The Canaanite verbal system, as it appears in the EA correspondence, is one of the single most important pieces of evidence about the shape of the BHVS. Most significant is the renewed argument in EA studies of a ‘long’ and ‘short’ prefix form (i.e., *yaqtulu and *yaqtul) lying behind BH yiqtol and wayyiqtol, which has replaced the less convincing arguments of an original stress distinction between these forms (see 2.3.1) (cf. Classical Arabic Imperfect yaqtulu and Jussive yaqtul). However, interpretation of the data is not always straightforward. For instance, John Huehnergard has raised the question of whether it is accurate to talk of separate Indicative and Injunctive *yaqtul forms, or whether perhaps originally in Semitic there was a single form that was distinguished as indicative or injunctive based on something other than morphology (1988:20; see 1992:156). Susan Rattray (1992:47–49) and Peter Gentry (1998:25–29) have questioned the correlation between BH Cohortative -â and the EA Volitive *yaqtula, taking Rainey’s allowance for a connection with the Akkadian ventive as more likely. Questions abound concerning the significance in BH of both the paragogic nun, which occurs on only about four percent of the possible forms (Hoftijzer 1985:2), and the energetic nun, which is only preserved on verbs with object suffixes. Finally, the evidence compiled by Moran and Rainey in no way demands the non-aspectual interpretation of the verb forms that they have both espoused.
2.3.3 *The Ugaritic Verbal System*

Ugaritic, like the EA Canaanite, has served to substantiate a much richer verbal system in West Semitic than is preserved in the Hebrew Bible. Although analysis of the Ugaritic verbal system is hampered by the fact that the texts are largely unvocalized, the evidence supports a picture of the West Semitic verbal system that is similar to the model of the Canaanite verb proposed by Rainey (2.3.2): like EA Canaanite, Ugaritic has a Suffix form, a long (Imperfect) and short (Preterite) Prefix conjugation, as well as Jussive, Subjunctive (= Volitive), and Energic forms (see Sivan 1997:96–108; Tropper 2000:423–506).

Terry Fenton has pointed out a functional parallel between the Ugaritic Preterite *yqtl* and BH *wayyiqtol*: the Preterite *yqtl* “is the normal narrative tense” (1973:32; see Segert 1984:89; Sivan 1997:99; Tropper 2000:696), as *wayyiqtol* is in the Hebrew Bible. He also observes that the non-past value of *weqatal* is comparable to the non-past use of Ugaritic *qtl* in conditional clauses (1973:36).

The epic poetry of Ugarit has provided some of the only literary parallels to BH poetry. Moshe Held observed a similar alternation in parallel stichs of *qtl* and *yqtl* in Ugaritic and BH poetry. Examining the two patterns where they occur with an identical verb root he concluded that “what is involved is the use of an ‘imperfect’ form which in these cases is really a preterit, well known in biblical Hebrew” (1962:282).

As in the case of the Canaanite evidence from EA, the Ugaritic evidence is equivocal with respect to the semantic values of the verb forms. For example, Tropper interprets the Ugaritic verbal system as aspectual (2000:682–84); Sivan, however, claims that the evidence points unambiguously to a tense system. He asserts that Moran’s study of Byblian Canaanite (see 2.3.2)
“sounded the death knell to Ewald’s theory” (Sivan 1998:89). However, Sivan’s insistence that qtl “expressed the past,” followed by a taxonomy of functions of qtl with past, present, future, and even optative values betrays the problematic nature of his tense-based approach (1998:90–92).

2.3.4 Other Semitic and Afroasiatic Languages

Comparison with Akkadian, EA Canaanite, and Ugaritic have had the most significant influence on understanding the BHVS. However, comparison with other Semitic and Afroasiatic languages have been pursued in an effort to understand more fully the origins of the elusive BHVS. These comparative observations have primarily been of the sort of “sightings” of the prefix preterite *yaqtul form, believed to be preserved in BH wayyiqtol, in related languages. Some of these comparisons were observed already early in the century, such as the past tense use of the Arabic Jussive form following the negative lam (Bergsträsser [1918–29] 1962:2.14). Others come from more recent discoveries such as the Ebla texts from the third millennium, unearthed from 1974–1976. Hans-Peter Müller has illustrated the presence in Eblaite of a short and a long prefix form, as well as a suffix conjugation, making it comparable with West Semitic, although in general Eblaite has more affinities with Akkadian than with Ugaritic and EA Canaanite (1984). Some of the most important, and sometimes debated, comparisons have been in the West Semitic epigraphs. Scholars are generally agreed that there are remnants of a prefix preterite in Moabite, the dialect of Deir ‘Alla, and Old Aramaic (Zkr and the recently discovered Tel Dan stele), and of course the Hebrew epigraphs (see M. Smith 1991:18–19; see Emerton 1994, 1997; Muraoka 1995, 1998; Müller 1995; Sasson 1997; and Tropper 1996 on Tel Dan).
W. Randall Garr summarizes the evidence:

Several verbal forms functioned as the narrative, historical past tense in the first-millennium NWS [Northwest Semitic] dialects. Most dialects—Old Aramaic (Zkr), the Deir Alla dialect, Moabite, and Hebrew—used the old consecutive imperfect [i.e., (way)yiqtol]; this distribution suggests that the consecutive imperfect was a common NWS verb form. In the other dialects, the consecutive imperfect was lost. It was replaced by the perfect [i.e., qatal] in Samalian, most Old Aramaic dialects (post-ninth century), and in late Hebrew (sixth century on). This replacement probably occurred independently in the different dialects. Finally, in standard Phoenician the consecutive imperfect was replaced by the infinitive absolute; with respect to the first-millennium NWS dialects, the use of the infinitive absolute as the narrative tense was a Phoenician syntactic trait. (1985:186)

In a somewhat different direction, the particular shape and “sequential” character of the narrative wayyiqtol has been compared with the Egyptian narrative verb form. Antonio Loprieno looked at the “syntactic parallelism” between the BH and Egyptian sequential versus non-sequential verb forms (1980). Gordon Young (1953), followed by John Sheehan (1971), analyzed the morphology of BH wayyiqtol the Egyptian sequential narrative form, illustrated by iw sdm-n-f (‘and he heard’): the wa- is adverbial, serving to subordinate the clause, and the long prefix consonant (-yy-) is a result of the assimilation of the past tense marker $n$, equivalent to the Egyptian past tense marker (see Thacker 1954; Janssens 1975). However, such comparisons with Egyptian are morphologically problematic (see M. Smith 1991:3–4).

2.3.5 Summary

Historical-comparative studies have been one of the major contributing factors in the difference between studies of the BHVS (and much of BH grammar) in the nineteenth century and in (the last half of) the twentieth century. While discussion of the relationship between East and West Semitic initially revolved around the very speculative pursuit of “the original” Semitic verb form, such a goal is now recognized as lying beyond the limits of our evidence (not to
mention misguided), and hence, futile (Moran 1950:24). However, those debates yielded an important observation, namely, that BH *yiqtol and *wayyiqtol are semantically and etymologically distinct. This observation is the foremost of many significant results from comparative studies that have greatly expanded scholars’ understanding of the Semitic, and consequently the BH, verbal system. However, because the earlier studies on East and West Semitic were unable to find evidence of the preterite prefix form in West Semitic outside of BH, they all arrived at the same conclusion: BH is unique among West Semitic—a *Mischsprache (Bauer 1910; Driver 1936; Thacker 1954). This conclusion has been all but abandoned (but cf. Andersen 2000) in light of the more recent West Semitic evidence.

The full extent of the early West Semitic verbal system has been demonstrated by the evidence from EA and Ugarit as well as the West Semitic epigraphs. Most scholars are now in agreement that West Semitic consisted minimally of two prefix forms—*yaqtul and *yaqtulu—and the suffix form *qatala, a West Semitic innovation (Brockelmann 1951:141; Huehnergard 1992:156). Regardless of the semantic label given to these forms, they are attested in parallel contexts with similar functions throughout the West Semitic languages (Müller 1983; Tropper 1998). It is not completely clear whether the distinction between *yaqtul indicative (preterite) and *yaqtul modal (jussive) should be stated in terms of separate, homonymous conjugations (Rainey 1986) or as polysemous values of a single conjugation (Huehnergard 1988:20; 1992:156). By contrast, the existence of a *yaqtula volitive conjugation and the two energetic conjugations *yaqtulan(n)A and *yaqtulan(n)A in West Semitic is uncertain, and attempts to find remnants of another prefix conjugation parallel to Akkadian *iparras and Ethiopic *yeqattel in Western Semitic (e.g., Goetz 1938, Greenberg 1952; Rössler 1961, 1962, followed by Rosén
While the comparative-historical studies of West Semitic have thus exonerated BH from the earlier charge of being a *Mischsprache*, they have not really focused on the question of the semantics of the BHVS, nor can the labels commonly employed in comparative discussions (e.g., prefix preterite) simply be applied to the BH reflexes. As mentioned above, much of the comparative-historical evidence is equivocal, and finding formal and functional parallels to the BHVS does not inevitably lead to an explication of the form’s semantic value. For example, while the variegated uses of BH *qatal/weqatal* is paralleled in the West Semitic languages, such comparisons have led to varying conclusions. Moran claimed that the Canaanite *qatala* is tenseless (1950:36), whereas others look for a optative/precative meaning behind *weqatal* (e.g., Joosten 1992:3; Rainey 1996:366) or cite *qatal*’s use in conditional clauses (e.g., M. Smith 1991:6–12) as the origin of *weqatal*, its non-past meanings being expanded on analogy with *wayyiqtol* (e.g., Bergsträsser [1918–29] 1962:2.14; Bobzin 1973:153; M. Smith 1991:6–8; Buth 1992:101; thus Fenton 1973:39 suggests renaming the form “*wāw analogicum*”). Finally, Andersen maintains Bauer’s early assertion that *qatal* and *weqatal* derive from two different Proto-Semitic suffix conjugations (Andersen 2000).

### 2.4 Tense Theories of the BHVS

Despite the longevity and pervasiveness of the Ewald-Driver aspecural approach to the BHVS, tense theories such as the medieval Jewish grammarians held (see 2.2.1) have persisted (e.g., Joüon 1993:356 retains the designation of “future” for *yiqtol*). In addition, while many
introductory grammars in theory present an aspectual view of the BHVS, practically speaking they teach the BHVS as tense because of the exigencies of explaining an aspectual theory to native speakers of tensed languages (e.g., Weingreen 1959:56–57). However, some tense theories in the twentieth century have reached a certain level of sophistication by incorporating the parameter of syntactic variation.

2.4.1 Frank R. Blake, James A. Hughes, and O. L. Barnes

Frank Blake, in a series of articles (1944, 1946) and a monograph (1951), developed a tense theory consciously set against the prevalent standard aspectual theory: “The whole [standard aspectual] treatment presents a picture strongly characterized by complexity, obscurity and artificiality” (1951:1). Newly armed with Bauer’s diachronic approach (see 2.3.1), Blake “resurveyed” the standard lists of meanings for each BH verb form in Driver ([1892] 1998) and Gesenius (Kautzsch 1910) and categorized them as examples of either the older or newer Semitic tense form. While he admitted certain “aspectual” nuances for the forms, he claimed those notions are always “subordinate” to the primary tense meanings (1951:2). That Blake was unable to surpass the “complexity, obscurity, and artificiality” of the aspectual approach is evident from his concluding paragraph following his resurvey of the BH verb forms:

The imperfect may denote any tense or mood. . . . The perfect may denote past tenses but also present or future. . . . Verb forms immediately following ה [waw] have in most cases meanings equivalent to that of the preceding verb. Converted imperfects and converted perfects may be used independently of any leading verb. Converted imperfects are regularly past. . . . Perfects with ב may have any of the normal meanings of the imperfect (present-progressive past-future-modal), but in many cases they are ordinary perfects with past meaning. (1951:73)

James Hughes, also using Bauer’s (and Driver’s) diachronic approach (see 2.3.1), made a syntactic survey of the BH verb forms appearing after various particles (e.g., ’āz, ʿerem, ʿāšer,
pen, ki, ’im) in the primary history (Genesis–2 Kings) (1955, see also 1962, 1970). Aside from postulating that the prefix preterite appears in a wider number of syntactic settings than formerly maintained (e.g., Blake 1951:74–75), Hughes’ theory is simply an a priori application of Bauer’s diachronic model:

It is our thesis that all the Imperfects in past time are vestiges of an old preterite tense of the preformative type (which was found in two forms: yaqṭulu and yaqṭul) and are consequently found in stereotyped constructions. They have been preserved simply because they are in construction with certain particles and other elements. The preteritive use of the Imperfect is not restricted to instances with waw consecutive and other particles such as ʾaz and terem: additional particles are also used with the Imperfect in a preterite sense. Also, we postulate that all Perfects in future time are straight (aoristic) future tenses and, like the Imperfects in past time, are to be regarded as archaisms. This futuristic use harks back to the time when the old affirmative verb qatil (qatal) was employed in future situations. Hence the Perfect is found in future time in stereotypic construction with other elements—not simply with waw consecutive but with other particles as well. It would seem then that the Zeitpunkt does come under consideration in an evaluation of the usage of the forms and is indicated by factors external to the verb. (1955:142–43)

O. L. Barnes, by contrast, rejected Bauer’s and Driver’s diachronic approach (see 2.3.1) and collapsed the difference between the waw-prefixed forms and the non–waw-prefixed forms: qatal and weqatal are synonymous, both denoting past tense (an event “already fulfilled before one’s eyes”); yiqtol and wayyiqtol are likewise synonymous and denote present tense (an event “now in the course of fulfillment”) (1965:7). The uniqueness of Barnes’ approach lies in how he relates events to the viewpoint of the speaker in a way reminiscent of Bull relative tense model (1960; see 1.2.3.2): an event may be temporally evaluated from multiple points in time, including the actual present, or “positional present 1” in the actual past, or “positional present 2” in the actual future (1965:131; cf. Bull’s schematic, fig. 1.2).

2.4.2 Jerzy K. Kuryłowicz

The linguist Jerzy Kuryłowicz claimed that the verbal system of West Semitic (based on
analyses of Classical Arabic and BH) is not primarily defined by aspect or tense: “A binary system like [Arabic] $\text{yaqtulu} : \text{qatala}$ [and by relation BH $\text{yiqtol} : \text{qatal}$] excludes not only the category of aspect, but also the category of tense. . . . The fundamental relation $\text{A} [= \text{yaqtulu}] : \text{B} [= \text{qatala}]$ is neither one of aspect nor one of tense. Its correct definition is simultaneity (or non-anteriority) versus anteriority” (1973:115). Kuryłowicz’s rhetoric was an attempt to distance his relative tense theory from the Slavic conception of aspect and the Indo-European concept of tense (1973:118): “The primary meaning of $\text{yaqtulu}$ is action simultaneous with the moment of speaking; the primary meaning of $\text{qatala}$ is action prior to the moment of speaking” (1973:115).

Kuryłowicz utilized the Prague School concept of privative oppositions in his model. He proposed a privative opposition between West Semitic $\text{*qatala}$ and $\text{*yaqtulu}$: the former, marked member expresses anteriority, and the latter, unmarked member neutrally expresses non-anteriority or negatively expresses simultaneity (1972:80). While West Semitic can express the same range of tense-aspect values as, for instance, Indo-European languages, these values are context conditioned functions of the single morphological pair (1973:116). By contrast, most Indo-European languages, like Latin, index the full range of tense-aspect values morphologically. Kuryłowicz illustrates the contrast between the West Semitic verbal system (using Arabic) and

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19 Kuryłowicz’s model is difficult to categorize, as manifest in Binnick’s comment in one place that Kuryłowicz’s theory is “relative tense,” and in another, that he treats the Semitic “aspects” like “absolute time” (1991:438). Kuryłowicz’s own statements appear to employ both the concept of absolute tense and relative tense: “The only non-modal opposition of personal verb forms is $\text{yaqtulu} : \text{qatala}$ equal to simultaneity (or non-anteriority) : anteriority, tense being context conditioned” (i.e., relative tense) (1973:116); and “the relation $\text{pisze} : \text{писал}$ like that of $\text{il écrit} : \text{il écrivait}$ is an opposition of mere tense (simultaneity with the moment of speaking : simultaneity with a moment of the past)” (i.e., absolute tense) (1973:114). His use of the labels “anteriority” and “simultaneity” for his tense theory adds to the difficulties since they are also regularly applied to perfect and progressive viewpoint aspects, respectively (see Bybee, Perkins, and Pagliuca 1994:54, 133–34; Binnick 1991:285–86).

20 On the Prague School see Vachek 1992; on privative oppositions see Crystal 1991:277, and chap 1, n.23.
Latin with the schemata in figure 2.2.

**Figure 2.2.** Kuryłowicz’s schemata of Classical Arabic and Latin verb oppositions (adapted from 1973:116).

<table>
<thead>
<tr>
<th>Classical Arabic</th>
<th>Latin</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong> = yaqtulu</td>
<td><strong>A</strong> = scribo</td>
</tr>
<tr>
<td>(non-past, non-anterior)</td>
<td>(Present)</td>
</tr>
<tr>
<td><strong>B</strong> = yaqtulu</td>
<td><strong>B</strong> = scribem</td>
</tr>
<tr>
<td>(past-simultaneous)</td>
<td>(Imperfect)</td>
</tr>
<tr>
<td><strong>B</strong> = qatala</td>
<td>(Perfect)</td>
</tr>
<tr>
<td>(anterior)</td>
<td></td>
</tr>
<tr>
<td><strong>γ</strong> = qatala</td>
<td><strong>γ</strong> = scripsam</td>
</tr>
<tr>
<td>(past-anterior)</td>
<td>(Pluperfect)</td>
</tr>
</tbody>
</table>

Kuryłowicz’s model of Arabic includes four semantic categories: the basic opposition between qatala and yaqtulu (A:B), and a secondary use each of yaqtulu (B) and of qatala (γ) that differ in tense from their primary use. These secondary uses create two (secondary) tense contrasts (A:B and β:γ), and two tertiary aspectual opposition (B:β and B: γ). Thus, he concludes that “genuine aspect is in Sem[itic] a tertiary function of the verbal forms” (1972:86).

Kuryłowicz’s taxonomy of the secondary (tense) and tertiary (aspect) functions of the West Semitic verbs is given in table 2.6 (not all of which are featured in fig. 2.2).

<table>
<thead>
<tr>
<th>Secondary functions (tense)</th>
<th>Tertiary functions (aspect)</th>
</tr>
</thead>
<tbody>
<tr>
<td>of yaqtulu</td>
<td></td>
</tr>
<tr>
<td>imperfectum [= past simultaneous]</td>
<td>imperfective preterite</td>
</tr>
<tr>
<td>futurum [=future]</td>
<td>imperfective future</td>
</tr>
<tr>
<td>of qatala</td>
<td></td>
</tr>
<tr>
<td>plusquamperfectum [= past anterior]</td>
<td>perfective preterite</td>
</tr>
<tr>
<td>future exactum [= future perfect]</td>
<td>perfective future</td>
</tr>
</tbody>
</table>

The perfective future (aspect), as opposed to futurum exactum (tense), Kuryłowicz identifies as the so-called prophetic perfect function of qatal (1972:87; 1973:118).

Kuryłowicz hypothesized that West Semitic at an earlier stage had a morphological distinction between the anterior (β) and past anterior (γ) (see fig. 2.2): the former using the
qatala form, the latter the preterite *yaqtul (see 2.3) (1973:119). Despite this recognition of a prefixed preterite form in West Semitic, Kuryłowicz associated wayyiqtol with the non-anterior/simultaneous *yaqtulu instead of with West Semitic preterite *yaqtul. Thus, he was confined to treating the waw-prefixed forms after the manner of nineteenth-century Hebraists:

The waw-“imperf.” denotes an action simultaneous with or ensuing from an action mentioned (generally expressed by a “perf.”) or inferred. . . . “The waw-“perf.” is formally determined, as regards tense, by the preceding verbal form, generally an “imperf.” or its equivalent (e.g., the participle qátîl). Its value corresponds in the majority of instances to a secondary function of the “perf.”: state or result of previous action (corresponding to the function of the perfect in the classical sense). The relation between qatala and the preceding yaqtul(u) is often consecutive or final (result). (1972:88)

While Kuryłowicz’s introduction of secondary and tertiary functions in contrast to primary (morphologically marked) values is laudable, his theory is questionable on other points. First, he assumed that no language could be characterized by aspect and not tense since, as he argued, aspect always assumes tense (1973:114; see Binnick 1991:441). This theoretical dismissal of the possibility of a “tenseless” language is unwarranted, as more recent linguistic literature demonstrates (Binnick 1991:444–45; Comrie 1976:82–84). Interestingly, Kuryłowicz’s model is a mirror image of Dahl’s, which interprets Arabic as consisting of an aspectual binary opposition, with tense as a secondary distinction, as illustrated in figure 2.3 (repeated from fig. 1.11). The central question then is which is the more basic verbal category, aspect or tense? In answer to this question, Bybee’s study of morphology and meaning supports Dahl’s view that aspect is more relevant to verbs cross-linguistically than is tense (1985:21, 30–31; see 3.3.2).

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21 Kuryłowicz hypothesizes further that Akkadian at one time may have had morphological distinctions throughout its verbal system, as Latin (see fig. 2.2): Present iqdattal (A), Subjunctive iqubulu (B), Perfect iqdatal (B), and Preterite iqul (γ). However, he argues that the morphology no longer aligns with the semantic oppositions fully because some forms, notably the Subjunctive, have undergone semantic shifts (1973:119–20).
First, there are more specific problems with Kuryłowicz’s model. Although it is clear that *qatal (B) and *yiqtol (B) in figure 2.2 contrast aspectually—perfective : imperfective—his description of these forms as expressing “action prior to the moment of speaking” (1973:115) and “simultaneity with a moment of the past” (1973:114), respectively, do not clearly identify this aspectual distinction. And in figure 2.2, anterior (β) and past-anterior (γ) are illustrated by Latin Perfect and Pluperfect, respectively; however, Kuryłowicz also asserted that in early West Semitic these functions were filled by *qatala and *yaqtul, respectively. Nowhere else is it claimed that the basic meaning of West Semitic preterite *yaqtul was past perfect.

2.4.3 Joshua Blau, M. H. Silverman, and E. J. Revell

Joshua Blau, in a brief comment on tense and the BHVS, identified a new avenue for tense studies that has been followed by several subsequent scholars. Blau claimed that the distinction between the waw-prefixed forms and the non–waw-prefixed forms is not semantic but syntactic:

To summarize: Biblical prose exhibits a verbal system that denoted tenses, since the alternation of qâtal/wayyiqtol and yiqtol/wâqâtal is due to the syntactic environment (the impossibility/possibility of the use of wâw copulative). Accordingly, one will assume a similar system in the spoken language. Deviations in the usage of verbs in biblical poetry have to be interpreted as intentional archaism. Since it is impossible to reconstruct such an intricate system as the verbal system is, from mere archaic features (including, no doubt, pseudo-archaic ones), nothing certain can be inferred from them as to the nature of the Proto-Hebrew verbal system. (1971:26)

M. H. Silverman’s comments echo Blau’s: qatal and wayyiqtol are syntactic varieties of past tense, yiqtol and weqatal are syntactic varieties of future tense (1973:175). However, he
indicated the fuller potential of a syntactic approach to the BHVS in his concluding comments: “It is then conceivable that the more widely studied aspects of completeness (perfect) versus incompleteness (imperfect) would also be indicated by the placement of the verb within the clause, and not by its morphology” (1973:175).

E. J. Revell capitalized on the potential of the syntactic approach alluded to by Silverman, although with respect to modality rather than aspect. Revell’s tense model features a syntactic distinction between indicative and modal *yiqtol*: modal *yiqtol* is clause initial, and indicative *yiqtol* is non-clause initial (1989:14; exceptions are dealt with as “non-standard” uses of the modal, 1989:17–21). Revell was not the first nor only scholar to observe this syntactic distinction (e.g., Rosén 1969; Voigt 1989), but his study has contributed to disseminating this view more widely (e.g., DeCaen 1995; Shulman 1996; Niccacci 1987; Gentry 1998). Revell frames this indicative-modal syntactic distinction in terms of Blau’s syntactic tense approach (1989:3), undergirding Blau’s ideas by offering a motivation for the variation between *yiqtol* and *weqatal*: the *weqatal* developed as a syntactic alternative to indicative *yiqtol* because a clause initial *yiqtol* would be interpreted as modal (1989:21).

Revell exploits the comparative data that show a past tense value for *wayyiqtol* (i.e., preterite *yaqtul*) by taking it as evidence that pre-BH, like post-BH, was a tense system. Thus, he deduces, “it seems likely, *a priori*, that the system of the intervening period would also have been one of tense” (1989:3). Besides Revell’s gratuitous assumption that BHVS is tense (the Semitic preterite *yaqtul* does not by itself constitute evidence that Semitic was tense), all three syntactic tense theories surveyed here (Blau, Silverman, and Revell) beg the question why the syntactic variation of clause initial versus non-clause initial should be important. Revell has only partially
addressed this question in his treatment of clause initial and non-clause initial yiqtol.

### 2.4.4 Ziony Zevit

Ziony Zevit is perhaps the most adamant proponent that the BHVS is marked for tense and not aspect (1988:26): qatal is past tense, yiqtol is present-future tense. He argues that any identification of yiqtol as indicating a past event is suspect because the system would thereby “short-circuit” since the consequent temporal reference—past, present, or future—of the yiqtol form would not be apparent (1988:30). Therefore, although Zevit recognizes the preterite *yaqtul origin for wayyiqtol, he denies that there are any examples of this form without the prefixed waw in the Hebrew Bible (contra Rainey 1986); nor does there exist a past durative use of the yiqtol (from *yaqtulu). He explains examples of yiqtol in past contexts as a sort of ‘historical present’ use of the form (see Smyth 1956:422): “it [the yiqtol in past context] actualizes a situation by projecting it into the real time of the speaking voice either for dramatic effect or for emphasis” (1988:31). Finally, complementing Revell’s discussion of yiqtol versus weqatal, Zevit offers a semantic (relative tense) motivation for the variation between qatal versus wayyiqtol: the syntagm waw–subject–qatal following a wayyiqtol or qatal clause expresses a past perfect or present perfect meaning (1998:15).

Zevit’s model of the BHVS is weakened by poor argumentation in several places. Zevit is inconsistent in his approach, dismissing etymological (comparative-historical) studies because they “are inadequate as descriptions of how this system works” (1988:27), yet accepting the etymological explanation of wayyiqtol as past tense. Similarly, Zevit complains that a past time use of yiqtol would create confusion over whether the form was past, present, or future in a
particular instance (above), yet such confusion is not evident since he presumes to be able to identify examples of *yiqtol* in past contexts, which he proceeds to explain as historic presents.

Zevit’s use of linguistic data is also problematic. First, Zevit claims that no languages are tenseless (1988:26; see Kuryłowicz, 2.4.2), whereas linguists have documented several tenseless languages (Binnick 1991:444–45; Comire 1976:82–84). Second, he cites Bybee’s claim that any language that has an anterior verb form has a tensed verb system (1985:160) in support of his contention that BH must be tensed because it has a means of expressing the anterior value. However, Bybee’s discussion concerns morphologically marked anteriors, not syntactically expressed anteriors as Zevit maintains is the case in BH (not to mention that the anterior or perfect is properly a viewpoint aspect [see 1.3.1; 3.1.3.3] and not a tense, as Zevit apparently conceives of it).

### 2.4.5 Brian Peckham

Brian Peckham’s theory is included here because it is in keeping with the syntactic tense approach: “Tense, in short, is due to verb movement, not to verb form” (1997:139). However, Peckham incorporates aspect and mood in his theory as well. Peckham presents the most elaborate syntactic model, but it is also the most confusing because of a lack of terminological clarity. In particular, what he labels “time” consists of both tense and aspect characteristics: “Time is a qualification of tense: it defines past, present or future actions, either in themselves (that is, in individual clauses: absolute time), or in relation to other actions (that is, in relation to another action or state with an intrinsic temporal quality). Time is also known as *Aktionsart* (“kind of action”), or as a ‘situation’ (an action or a state with an intrinsic temporal quality)”
(1997:141n.6). Under the category of “time” Peckham includes prior, complete, and simultaneous as relative values expressed by \textit{qatal}, and durative or habitual, repeated or distributive, and progressive or incomplete as absolute values expressed by \textit{yiqtol} (1997:141–42).

Peckham’s system treats five different syntagma: consecutive \textit{qatal} (= \textit{wayyiqtol}) and consecutive \textit{yiqtol} (= \textit{wegatal}),\footnote{Note Peckham’s peculiar choice of terminology that betrays a converive tense view of the \textit{waw}-prefixed verbs: \textit{wayyiqtol} is consecutive \textit{qatal} and \textit{wegatal} is consecutive \textit{yiqtol} (1997:143).} disjunctive (\textit{waw} + x + \textit{qatal/yiqtol}), paratactic (\textit{waw} + \theta + \textit{qatal/yiqtol}, i.e, \textit{wqatal/wyiqtol}), conjunctive (clauses with a conjunction), and asyndetic (clauses without a conjunction). He combines these syntagma with the parameters of three different word orders: subject or subject modifiers first, object or object modifiers first, and verb or verb modifiers first (1997:142–43). His model of the BHVS is given in table 2.7.

<table>
<thead>
<tr>
<th>Word Order</th>
<th>Tense (time)</th>
<th>Tense (time)</th>
<th>Clause Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject first</td>
<td>perfect past</td>
<td>perfect (prior)</td>
<td>past (durative/habitual)</td>
</tr>
<tr>
<td>Object first</td>
<td>preterite (complete)</td>
<td>imperfect (repeated/distributive)</td>
<td></td>
</tr>
<tr>
<td>Verb or verb modifiers first</td>
<td>present perfect present (simultaneous)</td>
<td>present (incomplete/progressive)</td>
<td></td>
</tr>
<tr>
<td>Subject first</td>
<td>present perfect present (simultaneous)</td>
<td>present (incomplete/progressive)</td>
<td>Conjunctive</td>
</tr>
<tr>
<td>Object first</td>
<td>preterite (complete)</td>
<td>imperfect (repeated/distributive)</td>
<td></td>
</tr>
<tr>
<td>Verb or verb modifiers first</td>
<td>perfect past perfect (prior)</td>
<td>past (durative/habitual)</td>
<td></td>
</tr>
<tr>
<td>Verb first</td>
<td>preterite (complete)</td>
<td>imperfect (repeated/distributive)</td>
<td>Consecutive and Paratactic</td>
</tr>
</tbody>
</table>

In addition, Peckham’s theory treats tense (and aspect) and mood in various types of
interclausal contexts, for example, subordination, coordination, and sequencing of clauses. He argues that tense and mood are relative. For instance, qatal and yiqtol can both be either modal or indicative depending on the type of subordinate clause in which they appear (1997:155–60). In coordinated parallel lines with identical word order and ellipsis, “the parallel clause assumes the tense or mood of the clause to which it is parallel, but maintains its own time and aspect” (1997:160). Finally, verbs in consecutive clauses “maintain the tense of the lead clause” (1997:164; cf. waw inductive theories, 2.2.1, 2.2.3). Thus, Peckham builds on Blau’s simple syntactical tense idea to create a model in which tense (with aspect and mood) is dependent on a variety of syntactical elements: initial constituent, type of clause, and interclausal relationships.

With Peckham’s model, tense theory is brought to a new level of obfuscation. His model proposes that tense and mood in BH are dependent upon clause type (i.e., the verb and its syntagm), the constituent (subject-verb-object) order, and type of clause connection—whether coordinate, subordinate, or consecutive (thirty possible combinations of aspects, word orders, and clause types). It is difficult to fathom a living language functioning in such a manner using verb forms that morphologically appear to mark so little in Peckham’s estimation (see Tropper 1999).

2.4.6 Summary

Twentieth-century tense theories represent an evolution of the medieval tense theories (see 2.2.1). Recognizing the simplicity of earlier tense explanations, they have taken one of three approaches to buttress a tense explanation of the BHVS. The first, taken by Blake (1951) and Hughes (1955) was to apply a priori Bauer’s and Driver’s MischenSprache idea.

Under a second approach we may group both Barnes (1965) and Kuryłowicz (1972, 1973).
Despite obvious differences, both Barnes and Kuryłowicz proposed a type of relative tense theory. Barnes’ concept of various points of “temporal evaluation” is reminiscent of Bull’s “axes of orientation” (1.2.3.2). Kuryłowicz added to the relative tense analysis of qatal : yiqtol the notion of secondary tense and tertiary aspectual functions to explain the variety of semantic values for the BH (and Arabic) verb forms; this distinction between morphological marking and semantic function is significant. Unfortunately, Barnes’ theory suffers from the same deficiencies as the universal relative tense theories critiqued in chapter one (1.2.4), and Kuryłowicz’s model has both terminological and substantive problems.

The third approach, taken by Blau (1971), Silverman (1973), Revell (1989), Zevit (1988, 1998), and Peckham (1997), eschews morphological questions and explains the duplicate semantic values of the waw-prefixed forms as due to syntactic variation with the non–waw-prefixed forms. Despite Revell’s and Zevit’s attempts to provide a semantic motivation for such syntactic alternations, this approach generally begs the question of why syntactic alternation is important in the BHVS.

None of these tense theories have provided fully satisfactory model of the BHVS, just as the tense theories surveyed in chapter one failed to construct a universal model of time and the verb (1.2.4). Tense theories are credited with the exploitation of syntax as a means to disambiguate homonymous forms in the BHVS; however, it is abundantly clear from the criticisms above that a syntactic tense model is an insufficient approach to the semantics of the BHVS.

2.5 Aspectual Theories of the BHVS

While Bauer’s theory of the development of the Semitic verb gave new impetus to tense
explanations of the BHVS (e.g., Blake, Hughes), the majority of scholarship still preferred the Ewald-Driver standard aspectual theory. At the same time, however, some scholars were advancing new aspectual theories that capitalized on Bauer’s diachronic data and/or utilized general linguistic theory to a greater degree than previously.

2.5.1 Marcel Cohen

Marcel Cohen’s model of the Semitic verb, which draws on the work of Antoine Meillet (1866–1936), was the first theory to combine Bauer’s diachronic model—he accepted that the waw-prefixed forms were archaisms (1924:19)—with Ewald-Driver’s complete aspectual model: the “imparfait” (yiqtol, and weqatal as “le parfait en rôle d’imparfait”) is “l’inaccompli” while the parfait (qatal, and wayyiqtol as “l’imparfait en rôle de parfait”) is “l’accompli” (1924:10–12, 286). This aspectual opposition is reflected not only in BH but in Akkadian (iqattal vs. iqtul), Biblical Aramaic (yiqtol vs. qatal), Arabic (yaqtulu vs. qatala), and Ethiopic (veqattel vs. qatal) (1924:11).

Besides the incorporation of Bauer’s diachronic model, what sets Cohen’s aspectual theory apart from earlier works is his distinction between form and function, implied even by his title, Le système verbal sémitique et l’expression du temps. In contradistinction to Kuryłowicz (2.4.2), Cohen argued that the Semitic verbal forms are marked for aspect, yet they function to express a variety of temporal nuances. The semantics of these functions are not always clearly related

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23 Antoine Meillet was trained in neogrammarian linguistics and, along with J. Wright, founded American linguistics as represented by Franz Boas, Edward Sapir, and Leonard Bloomfield (Robins 1997:210). In addition, Meillet worked extensively in Indo-European comparative and historical linguistics (Robins 1997:200, 208), and is considered the father of “grammaticalization” study and coined the term (Hopper and Traugott 1993:18).
to the aspectual value, such as in the case of the modal use of the *qatal* in conditional clauses (1924:19). Cohen cited the plethora of sometimes seemingly disparate temporal uses, along with the failure to distinguish form and function, as the causes of confusion in trying to define the semantics of each verb form.

### 2.5.2 Carl Brockelmann

Carl Brockelmann in his landmark grammar of Semitic treated the Semitic verb as tense (“*Zeitstufen*”) (1908–13:144–51). However, in his 1951 article he reversed direction and explained the Semitic verb as “subjektiven Aspekt” (Brockelmann 1951:134; see 1956:39). He labeled *qatal* and *wegatal* both “konstatierend Aspekt” (from Latin *konstare* ‘stand still,’ ‘exist’) and *yiqtol* and *wayyiqtol* “kursiv Aspekt” (from Latin *kursus* ‘running,’ ‘coursing’) (1951:146).

Referencing his 1951 article, Brockelmann explains the aspectual distinction between *konstatieren* and *kursive* in his syntax monograph: “Daher sucht Verf[asser] die Tempora als die in manchen Sprachen zu beobachtenden subjektiven Aspekt zu erklären, unter denen der Redende einen Vorgang als geschehen einfach konstatieren (Perfekt) oder in seinem Verlauf (kursiv) darstellen will (Imperfekt)” (1956:39).

Brockelmann’s contribution lies in his replacement of the vague and ontologically confusing terms “complete” and “incomplete” with *konstatieren* (‘constative’) and *kursiv* (‘cursive’), defined as *subjective* aspect. With respect to this shift in terminology, he is followed by Meyer (1960, 1992), Rundgren (1961), and Johnson (1979), among others. Brockelmann’s claim that the BH verb forms express subjective aspect, however, merely clarifies what was present already in Ewald’s conception (quoted above): “Da also die begriffe des vollendeten und unvollendeten
Since, therefore, in virtue of the power and freedom accorded to the imagination, the ideas of completeness and incompleteness may also be used relatively, in such a way that the speaker, in whichever of the three simple divisions of time (past, present, or future) he may conceive of an action, can represent it either as complete, or as going on and coming. . . .” (Ewald 1879:3).

At the same time, because Brockelmann ignored the historical-comparative evidence of different origins for *yiqtol and *wayyiqtol, his explanation of BH narrative sequence presents no real advance over Driver’s: “Besonders deutlich tritt es in Hebräischen auf, wo die Erzählung regelmäßig mit dem konstatierenden Aspekt einsetzt und mit dem kursiven in der Kurzform fortgesetzt wird” (1951:146).

2.5.3 **Rudolf Meyer**

Rudolf Meyer was the first scholar to utilize the Canaanite evidence from Amarna (Moran 1950) to reconstruct the development of the Semitic and BH verbal systems. As opposed to Bauer, et al., who understood BH as a *Mishesprache*, Meyer understood it as a “Systemüberlagerung” brought about by the lengthy and variegated historical development of the verb forms (1960:315). Meyer proposed that early Semitic had a basic aspectual opposition between the “konstatierend Aspekt” *yaqtul and the “kursiv Aspekt” *yaqattal (1960:312). BH *yiqtol, however, is the reflex of numerous West Semitic prefix forms: preterite/jussive *yaqtul, indicative *yaqtulu, present (durative) *yaqattalu, subjunctive (or finalis) *yaqtula, and energetic *yaqtulan(na) (see Moran 1950 and Rainey 1986; 2.3.2). Alongside this inventory of prefixed forms, West Semitic developed the *qatala form from the Common Semitic *qatila.  

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24 Since, therefore, in virtue of the power and freedom accorded to the imagination, the ideas of completeness and incompleteness may also be used relatively, in such a way that the speaker, in whichever of the three simple divisions of time (past, present, or future) he may conceive of an action, can represent it either as complete, or as going on and coming. . . .” (Ewald 1879:3).
Three alterations to the West Semitic verbal system brought about the resultant BHVS. First, the new West Semitic *qatala took over the preterite functions of the preterite/jussive *yaqtul. Second, the present (durative) *yaqattal fell into disuse owing to its formal similarity with the factitive-resultative D-stem (BH y’qattel,yqattu:3MS; see Brockelmann 1951:140); its functions partially merged with *yaqtulu, which subsequently became the present (durative) indicative form. Third, precipitated by the loss of final short vowels, the other prefix forms merged and their remaining functions distributed between the *yaqtul prefix form and the *qatal suffix form (Meyer 1960:315–16; 1992:3.39–41).

The resultant system in BH preserved the basic Semitic aspectual opposition in the qatal : yiqtol pair: the former expresses constative aspect (Punktual) (“in dem eine Handlung oder ein Vorgang einfach festgestellt werden”); the latter expresses cursive aspect (Durativ) (“der den Ablauf einer Handlung schildert”) (1992:3.40). The waw-prefixed forms stand outside this aspectual opposition: the wayyiqtol preserves the preterite tense value (“objektiver Zeitstufen”) of the preterite/jussive *yaqtul (1992:3.39; see Beer 1952–55:2.120); the weqatal represents an extended use of qatal (1960:316), which Meyer compared with the modal use in Ugaritic and optative and conditional use in Arabic (1992:3.53; see Beer 1952–55:2.126). Thus, Meyer arrived at two important conclusions about the BHVS as a result of taking the historical-comparative data into account: first, wayyiqtol is past tense, despite the Semitic verbal system being primarily aspectual; second, weqatal’s meanings/functions are predominantly modal.

### 2.5.4 Frithiof Rundgren

Frithiof Rundgren, like Kuryłowicz, utilized the Prague School concept of privative
oppositions to describe the Semitic verbal system (see 2.4.4 and 1.4.3). Rundgren proposed a partially ordered (tree diagram) aspectual model made up of privative oppositions: the unmarked members each branch into an additional privative opposition, as shown in figure 2.4.

Figure 2.4. Rundgren’s model of privative oppositions in Semitic (adapted from 1961:72).

This model of privative oppositions is exemplified in Akkadian: the marked stative qatil versus the unmarked dynamic (“fiens”) iqattal/iqtul; the iqattal/iqtul pair is divided into the marked cursive iqattal versus the unmarked constative iqtul; and iqtul is divided into a marked punctual value and an unmarked neutral value.

In treating the BH data, Rundgren adds a temporal dimension: the second and third tiers of the oppositional model (i.e., the opposition between cursive and constative, and punctual and neutral) are split into present-future time (“nunc-Schicht”) and past time (“tunc-Schicht”) (1961:106, 109; see Meyer 1964:122). Rundgren’s model of the BHVS is given in figure 2.5.

Figure 2.5. Rundgren’s model of the Semitic verb applied to BH (modified from Rundgren 1961:109–10).

According to Rundgren’s model the dynamic yaqtul(u) has the marked value of cursive aspect in present-future (B₁ Present) and past time (B₂ Imperfect). The unmarked yaqtul(u) bifurcates
into a marked constative aspect in present ($\Gamma_1$, Coincidental; neutralized with present $B_1$) and past time ($\Gamma_2$, Punctual Aorist = remnants of prefix preterite without the waw), and a neutral (non-aspectual) value in the present (Modal forms $\Gamma_0$; *wegatal* represents another encroachment of the stative *qatal* into the realm of dynamic *yaqtul(u)*) and past time ($\Gamma_2$). Rundgren explains:

> Als merkmalloser Term in der Opposition Stativ/Fiens oder *qatal/yaq Tul* hatte *yaqtul* zwei Werte, einen negativen Wert, der den Begriff non-stativisch im positiven Sinne zum Ausdruck brachte, d. h. kursiv ($B$), so wie einen neutralen Wert, der nur die Indifferenz gegenüber dem positiven Wert (Stativ) und dem negativen Wert (kursiv) angab. Demzufolge hat das ursemiti. Aspekt system allem Anschein nach folgende Gestalt gehabt: *qatal* (*qatil, qatul*) / Fiens *yaqtul* usw. = $B$ und $\Gamma$ oder: Stativ, Perfekt, und Plusquamperfekt *qatal* / Präsens $B_1$ und Imperfekt $B_2$, *yaqtul* sowie Präsens $\Gamma_1$, da im Präsens die aspektuelle Opposition kursiv/konstativ aufgehoben ist; Präteritum $\Gamma$ und $\Gamma_2$, *yaqtul* (d. h. punktueller bzw. neutraler Aorist); vielleicht schon früh auch *qatal* in diesen Funktionen. Wenn der gegenüber der $B$-Form negative Wert $\Gamma_1$, *yaqtul* in der nunc-Schicht lokalisiert wurde, entstand ein “punktuelles Präsens”, das also Futurum realisiert werden konnte, da die Inkompatibilität der Begriffe Tempus praesens und “punktuell” einen Neutralisationsprozess bewirkte. (1961:105–6)

Rundgren’s aspectual model has been commended by many (e.g., Mettinger 1974:76) and has been widely disseminated through the works of his students, notably Isaksson and Eskhult. Bo Isaksson examined the Hebrew of the book of Qohelet, applying Rundgren’s model to the verbal system (1987). While he provides a good summary of Rundgren’s model (1987:25–28), he does not contribute anything new to the theory. Mats Eskhult’s (1990) discourse approach, which he combined with Rundgren’s aspectual approach, is briefly mentioned below (2.6).

### 2.5.5 Diethelm Michel, Péter Kustár, and Bo Johnson

Another strain of the aspectual approach is represented by the works of Diethelm Michel (1960), Péter Kustár (1972), and Bo Johnson (1979). In stark contrast with Rundgren’s work from about the same time, Michel’s approach is inductive and synchronic. Michel rejected the psychological explanations that scholars have used to explain *wayyiqtol* and *qatal* expressing
future time in poetry (1960:11), and he likewise repudiated the historical-comparative approach because of its presumption to compare languages that scholars do not yet fully understand in their own right (1960:14). Michel’s conclusion, based on a thorough inductive (and synchronic) study of the book of Psalms, is that *qatal* (and *weqatal*) represents a situation as “selbstgewichtig” whereas the *yiqtol* (and *wayyiqtol*) represents a situation as “relativ” to some other situation (1960:254). Making a simplistic form-meaning correlation and ignoring historical-comparative data, Michael treats *qatal* and *weqatal* as a single conjugation; and the only difference he finds between *yiqtol* and *wayyiqtol* is that the latter represents a situation in closer relation with what precedes than that former does (1960:47, 132). He summarizes the uses of the *qatal* and *yiqtol*:

Das perfectum berichtet eine Handlung, die in keiner Abhängigkeit steht, die selbstgewichtig ist. Die zeigt sich in dreifacher Weise:
1. Wenn ein perfectum isoliert oder am Satzanfang steht, konstatiert es ein Faktum.
2. Wenn ein perfectum syndetisch oder asyndetisch zu einem impf. oder part. tritt, fürht es dieses nicht weiter, sondern stellt ein explizierendes Faktum neben es.
3. Wenn mehrere perfecta unverbunden nebeneinanderstehen, geben sie keinen Handlungsforlauf an, sondern zählen gleichgewichtige Fakten auf.

Das imperfectum wird zur Wiedergabe einer Handlung gewählt, wenn diese ihre Bedeutung von etwas außerhalb der Handlung selbst Liegendem bekommt, also relative ist. Solches außerhalb der Handlung selbst Liegende kann sein
1. der Handlungsverlauf, in dem die Handlung ein sich ergebendes Glied bezeichnet (folge, Zweck, iterativer Gebrauch),
2. die allgemeine Lage oder
3. das Wesen der handelnden Person (modaler bzw. substantieller Gebrauch) und
4. der Will des Sprechenden (Ausdruck des Begehrens)

Michel also distinguishes the *qatal* and *yiqtol* on the basis of what type of subjects they have:

the action expressed by *qatal* with respect to the subject (actor) is of a “akzidentiellen Charakter,”
while that expressed by *yiqtol* is of a “substantiellen Charakter” (1960:110, 127). In other words, there is no intrinsic quality of the subject or actor that manifest by the action in the case of the
Péter Kustár, like Michel, rejects historical-comparative data, and thus equates the waw-prefixed forms with the non–waw-prefixed forms (1972:40). He also rejects the traditional complete : incomplete aspectual opposition, and draws on recent linguistic works, notably, Harald Weinrich on the Indo-European verbal system (1994; first edition 1964) and a Hungarian thesis on the Slavic aspectual system by J. Dombrovsky. Kustár claims that the distinction between *qatal/weqatal* and *yiqtol/wayyiqtol* is the quasi-aspectual notions of “determinierend” and “determiniert,” respectively (1972:45–46, 55). He illustrates the distinction in the parallel passages of 2 Kings 18:35–36 and Isaiah 36:20–21 (see [2.5]): in 2 Kings, where the *qatal* form of *ḥrš* (‘be silent’) is used, the emphasis is on the silence as a consequence, whereas in Isaiah, where the *wayyiqtol* form is used, the emphasis is on the cause of the silence. He summarizes this quasi-aspectual distinction:

Das Grundgesetz des Gebrauchs der Aspektkategorien ist das folgende: Durch den Gebrauch der qtal- und jqtl-Aspektkategorien unterscheidet der Sprechende die Handlungen danach, welche im unmittelbaren Verhältnis der Handlungen zueinander als determinierend und welches as determiniert zu betrachten sind, d. h. welche Handlungen als Ausgangspunkt, Grund, determinierendes Moment, Zweck, Ergebnis oder Schlusspunkt der andern Handlungen zu betrachten sind und welches die Handlungen sind, auf deren Grund, Zweck oder determinierendes Moment der Sprechende hinweis will. Die determinierenden Handlungen werden durch qtal-Formen, die determinierten Handlungen durch jqtl-Formen bezeichnet. (1972:55)

Bo Johnson, like Michel, takes a synchronic inductive approach, making a thorough survey of *waw + qatal* and *waw + yiqtol* in the Hebrew Bible. While he provides a useful compilation of statistics, he does little to advance the discussion of the semantics of the BHVS. Like other European aspectual theories surveyed here, Johnson treats *qatal* as constative and the *yiqtol* as cursive aspect (1979:30). He attempts to expound upon these concepts by explaining that the constative aspect views the situation from the outside, while the cursive aspect views it from
inside (1979:30, 96; see Comrie 1976:4). However, his multiplication of adjectives and metaphors do little to further the understanding of the two aspects. He concludes that the semantics of the verb with or without the waw are identical: the \textit{waw+qatal} is constative aspect, past perfect tense, future tense, iterative, or final, in contrast to the narrative \textit{wayyiqtol}; the \textit{waw+yiqtol} has the same functions—present-future, modal—that the simple \textit{yiqtol} form has (1979:96). In his review of Johnson’s work, G. Janssens observes, “I have the impression that Johnson’s work is not a progress as compared with the traditional grammar, a good description of which can be found in Joüon’s \textit{Grammaire de l’Hébreu biblique}” (1980:74).

The theories of Michel, Kustár, and Johnson contrast with the earlier theories surveyed here (e.g., Cohen, Meyer, and Rundgren) because of their conscious rejection of historical-comparative data. In addition, Michel and Kustár likewise jettisoned the traditional aspectual notions of complete/constative versus incomplete/cursive. But their alternative psychological and quasi-aspectual concepts such as independent versus relative, accidental versus substantial, and determining versus determined have no demonstrable basis in living languages. These terms are throwbacks to William Turner’s 1876 theory:

It might be said that the first \textit{qatal} is the more abstract, the second \textit{yiqtol} the more concrete, —the one the more objective, the other the more subjective. . . . Perhaps the most proper words which our language affords for the expression of the distinction are these, —the Factual and the Descriptive. The one makes statements, the other draws pictures; the one asserts, the other represents; the one lays down positions, the other describes events; the one appeals to reason, the other to imagination; the one is annalistic, the other fully and properly historical. (1876:384)

\footnote{McFall gives a succinct description: “The essence of Turner’s theory is that \textit{qtl} expresses the action or state as the attribute of the person or thing spoken of; the \textit{ytq} form expresses or represents the verbal action as in or of the subject, the produce of the subject’s energy, the manifestation of its power and life, like a stream evolving itself from its source. Whereas the first represents the act or state as an independent thing: the Factual; the second expresses the same act or state as a process, and one that is passing before our very eyes: the Descriptive” (1982:77).}
2.5.6 Summary

Since the establishment of the Ewald-Driver standard theory, aspectual explanations of the BHVS have always been more prevalent than tense theories. Tense theories (absolute or relative) have never fully succeeded in explaining the BHVS because of their inability to deal with examples in the Hebrew Bible that prima facie demonstrate the ability of a single form (e.g., *qatal, yiqtol*) to function in all three times—past, present, and future. Aspectual theories, on the other hand, are not hampered by such problems since aspect is not temporally limited in the way that tense is.

The explanatory power of the twentieth-century aspectual theories has been strengthened by the incorporation of the emerging historical-comparative data, and the distinction made between form and function: while *qatal* and *yiqtol* are aspectually marked, they may function to express various temporal ideas. The relative soundness of the theories by Cohen (1924), Meyer (1960, 1992) and Rundgren (1961) is based upon their utilization of these two elements; conversely, the relative unsoundness of the theories of Michel (1960), Kustár (1972), and Johnson (1979) is due to their eschewal of these elements.

Nevertheless, the aspectual theories surveyed here falter on two accounts. First, to the extent that linguists have struggled to define adequately the categories of tense and aspect and their interrelatedness (see Binnick 1991:3, 135), aspectual theories of the BHVS have been limited. Brockelmann was the first to distance himself from the ideas of perfectum/complete versus imperfectum/incomplete. However, Brockelmann’s substitute terms constative and cursive are not without conceptual problems, demonstrated by the fact that Meyer, for one, felt they required further specification with the labels punctual and durative, and Johnson multiplies terms to
explicate constative and cursive. Nevertheless, Brockelmann’s emphasis on aspect in BH as “subjective,” i.e., having to do with the speaker’s view of a situation, helped revitalize the aspectual approach by dealing summarily with criticisms based on the ontological confusion precipitated by an objective view of complete and incomplete aspect.

The second problem aspectual theories have had is their frequent inability to fit the consecutive forms into their systems. Ironically, Meyer has a place for wayyiqtol in his aspectual model as a tense form. Rundgren shows similar sensitivity to the historical data on wayyiqtol, but in the end treats it as non-aspectual. In contrast, Cohen and Brockelmann treat the waw-prefixed forms as semantically equivalent to their formally opposite non–waw-prefixed forms (i.e., wayyiqtol = qatal, weqatal = yiqtol), and the synchronic theories (e.g., Michel, Kustár, Johnson) collapse the quadruplet along formal lines (i.e., wayyiqtol = yiqtol, weqatal = qatal).

Finally, the synchronic approaches of Michel, Kustár, and Johnson are the least persuasive aspectual approaches. The historically diverse origins of the literature in the Hebrew Bible demand attention to diachrony even if one is attempting to analyze the language at only one stage of its development (e.g., Fensham 1978:9). The quasi-aspectual values that Michel and Kustár attach to the verb are questionable in light of the fact that other languages do not morphologically mark the same or similar values on their verb forms.

2.6 Discourse Approaches to the BHVS

Discourse analysis has already been introduced in chapter one (1.6). Two types of approaches were examined there: those that correlated verb forms (TAM values) with discourse functions, and those that sought to formalize the effect of verbal semantics on the texture of discourse (e.g.,
how and why verb semantics affect the succession of events); discourse studies of BHVS have been only of the first variety. As a result, most of these studies either ignore for the most part the semantics of the BHVS (e.g., Longacre) or else interpret verbal/clausal level semantics as a subsidiary concern with regard to their higher level discourse analysis (e.g., Talstra, Niccacci). Two popular ‘schools’ of discourse analysis of the BHVS are surveyed below: the Longacre ‘school,’ which has already been introduced in chapter one (1.6.1), and the (Weinrich/Schneider)/Talstra/Niccacci ‘school.’

2.6.1 Robert E. Longacre

Robert Longacre’s discourse model has been examined in chapter one (1.6.1). Although he has analyzed discourse in numerous languages, Longacre has given substantial attention to applying his discourse model to BH. Thus, here his rankings of the verb forms in BH will be examined. Longacre succinctly states his underlying assumptions in his study on the Joseph narrative (Gen 37–50): “I posit here that (a) every language has a system of discourse types (e.g., narrative, predictive, hortatory, procedural, expository, and others); (b) each discourse type has its own characteristic constellation of verb forms that figure in that type; (c) the uses of given tense/aspect/mood form are most surely and concretely described in relation to a given discourse type” (1989:59). In various studies Longacre has distinguished six different genre primarily by the three parameters of ±contingent succession, ±agent orientation, and ±projection (see table

26Mat Eskhult’s study is exceptional in its combination of his Rundgren’s semantic theory (see 2.5.4) with a discourse analysis. However, his theory has weaknesses both with regard to his adoption of Rundgren’s aspectual model (he treats qatal as if it is virtually an adjectival form based on its origin in the verbal adjective *qatil) and his discourse analysis (Andersen criticizes his vague notion of foreground-background) (see Andersen 1991).
1.19): *narrative, predictive, hortatory, expository, procedural,* and *instruction* (1989, 1992, 1994, 1995; he does not classify instructional discourse according to these parameters, see 1995).

Longacre has constructed salience rankings for narrative, predictive (and procedural, 1994:52), hortatory, and instructional discourse in the Hebrew Bible as given in table 2.8a–d.

Table 2.8. Longacre’s rankings of verb forms in discourse types.


<table>
<thead>
<tr>
<th>Band 1</th>
<th>1.1 Wayyiqtol: primary Storyline</th>
<th>1.2 Qatal: secondary 1.3 Noun + qatal: secondary (with noun in focus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band 2</td>
<td>2.1 Noun + yiqtol: implicitly durative/repetitive Backgrounded 2.2 Hinnèh + qotel Activities 2.3 Qotel (explicitly durative)</td>
<td></td>
</tr>
<tr>
<td>Band 3</td>
<td>Setting 3.1 wayhî ‘and it was’ 3.2 ʾwāḥāyā ‘and it will be’ 3.3 Nominal clause (verbless) 3.4 Existential clause with yēš</td>
<td></td>
</tr>
<tr>
<td>Band 4</td>
<td>4 Negation of verb (in any band) Irrealis</td>
<td></td>
</tr>
<tr>
<td>Band 5</td>
<td>(± wayhî + temporal phrase/clause) 5.1 General reference Cohesion (back-referential) 5.2 Script-predictable 5.3 Repetitive</td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Band 1</th>
<th>1.1 Weqatal: primary Storyline (Predictive) 1.2 Yiqtol: secondary (with noun in focus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Band 2</td>
<td>2.1 Hinnèh + qotel Backgrounded 2.2 Qotel Activities 2.3 Noun + qotel</td>
</tr>
<tr>
<td>Band 3</td>
<td>Setting 3.1 ʾwāḥāyā ‘and it will be’ 3.2 yiḥyeh ‘it will be’ (yiqtol of hāyā) 3.3 Nominal clause (verbless) 3.4 Existential clause with yēš</td>
</tr>
<tr>
<td>Band 4</td>
<td>4 Negation of verb (in any band) Irrealis</td>
</tr>
<tr>
<td>Band 5</td>
<td>(± ʾwāḥāyā + temporal phrase/clause) 5.1 General reference Cohesion 5.2 Script-predictable 5.3 Repetitive</td>
</tr>
</tbody>
</table>
Longacre was reluctant to give a ranking for expository discourse in his 1989 work, but posited that the most static forms, found in the lower rankings of narrative, predictive, and hortatory, would be ranked highest for salience in expository discourse (1989:111).

Longacre’s approach on the whole is successful; his association of particular verb forms and constructions with different levels of saliency is borne out by empirical analysis (see Longacre 1989 especially). Nevertheless, his theory has been criticized for proposing too many discourse types. Niccacci claims that distinguishing subtypes beyond the main division of narrative versus speech is irrelevant (1994b:119). Longacre apparently has no place in his taxonomy (table 1.19) for instructional discourse, and he posits the same verb ranking for predictive and procedural (table 2.8c; see 1994b:52); these facts may indicate that his three parameters are insufficient to
disambiguate all the possible discourse types or, alternatively, that he is attempting to distinguish discourse type more finely than is warranted.

More serious, however, is the absence of a semantic foundation to Longacre’s discourse analysis; this opens his model to stringent criticism, such as Hatav’s:

The main difficulty with this notion [of dynamic verb ranking] is that it is not defined by objective metalinguistic means, which results in a circular claim (wayyiqtol is a dynamic form because the situation it denotes is dynamic, and the situation is dynamic because it is denoted by a dynamic form). Even the criteria for determining the level of dynamism are not given full formal treatment. Therefore, it is not possible to evaluate this analysis or to judge the classification determined by it. For instance, Longacre states that the degree of informativity or relevance is responsible for the degree of dynamism and hence the choice of the form. How, however, are we to measure the degree of informativity or relevance? This vagueness allows Longacre to provide, at times, ad-hoc explanations to account for an occurrence of a specific form, explaining it as relevant (or irrelevant), informative or not highly informative, etc. (1997:21)

Hatav has recognized the central weakness of discourse approaches that simply correlate verb forms with discourse functions; namely, they cannot explain the motivation for such correlations, and often presume a causal connection between form and function that may not be warranted (e.g., Hopper’s assumption of a causal connection between perfective verbs and foregrounded events in discourse [1982:15; see 1.6.1]). Correlations are valid, insofar as they go, but they need to be based on a semantic theory as an objective means by which to evaluate the significance of such correlations.

2.6.2 Weinrich-Schneider Approach

Eep Talstra’s and Alviero Niccacci’s discourse approaches to the Hebrew Bible are based on the work of Wolfgang Schneider (1982; first published 1974), a pioneer of discourse analysis of the Hebrew Bible. Talstra characterizes Schneider’s approach as (1) taking syntax beyond the phrase and clause level to describe the “formal structure of texts,” and (2) approaching language
as “human communication” (1992:269). Schneider’s “more or less new model” is essentially an application to BH of the German linguist Harald Weinrich’s (1994; first edition 1964) discourse theory developed for European languages.

According to Weinrich, verb forms are not primarily semantic, but discourse-pragmatic; they provide a preliminary sorting (“Vorsortierung”) of the world of discourse for the speaker and listener (1994:30). Weinrich’s model is built on three parameters. The first is discourse attitude (“Sprechhaltung”), of which there are two: speech (“Besprechen”) and narrative (“Erzählen”) discourse (1994:18). These types are determined by the statistical predominance of certain verb forms in each: present, future, and perfect verbs are statistically dominant in speech discourse, whereas past, imperfect, past perfect, and conditional verbs are dominant in narrative discourse in European languages (1994:57). The second parameter, which he calls “Relief,” refers to whether the event is highlighted (foreground) or not (background). The third parameter is perspective (“Perspektiv”), which may be backwards (past), neutral, or forward (future). Talstra represents Schneider’s application of Weinrich’s model to BH with the chart in table 2.9.

<table>
<thead>
<tr>
<th>Narrative</th>
<th>Speech</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreground</td>
<td>Background</td>
</tr>
<tr>
<td>wayyiqtol</td>
<td>yiqtol / imperative</td>
</tr>
<tr>
<td>x-qatal</td>
<td>x-yiqtol</td>
</tr>
<tr>
<td>[past]</td>
<td>[future]</td>
</tr>
</tbody>
</table>


27 Talstra translates Besprechen as “discursive speech” (1978:170).

28 Note that Weinrich’s use of “foreground” and “background” differs somewhat from the usual sense in which they are used in discourse linguistics (see 1.6.1). Bache notes that Weinrich “replaces” aspect with relief, and that his concept of perspective “presupposes” tense (note Talstra’s use of tense labels for perspective in table 2.9) (1985:23–24).
2.6.2.1 Eep Talstra

Beyond propagating Schneider’s application of Weinrich to BH (Talstra 1978, 1982, 1992), Talstra has recently addressed the issue of TAM and the role it plays in Schneider’s discourse model. After surveying the different approaches of traditional clause-level grammar and discourse analyses, he concludes that one should “remain open to the possibility” of relating the clause-level and text-level (discourse function) has “priority” over one at the clause-level (1997:85–86).

Talstra illustrates the importance of text-level analysis with 2 Kings 19.3–4. In this passage, given in [2.11], the first weqatal (w’hôkî’h) is linked to the previous yiqtol, expressing result, whereas the second weqatal (w’nâšâ’tâ), Talstra argues, must relate back to the nominal clause in verse 3 (yôm-sârâ w’tôkêhâ un’âsâ hayyôm hazzeh) instead of the previous weqatal (1997:86–88). This is apparent from the difference in person between the two weqatal forms.

[2.11] wayyô’mrû ’elîyw kôh ’âmar hîziyyûhû yôm- šârâ w’tôkêhâ and-he-say:WAYY:3MP to-him thus say:QTL:3MS Hezekiah day.of distress and-rebuke un’âsâ hayyôm hazzeh kî bâ’û bânîm ‘ad-masbêr w’kô’h and-contempt the-day the-this for come:QTL:3MP sons to point-of-birth and-strength ’ayîn l’îdê’dâ 3ûlay yiśma’ yhwh ’êlôheykâ ’êt kol-dibré rab-sâqêh there-is-not to-bear perhaps hear:YQTL:3MS Yhwh God-your OBJ all words.of Rab-Shaqeh ’âser š’lûhô melek- ‘asses’r ’âdônâyv l’hârêp ’êlôhim bay who send:QAT-him king.of Assyria master-his to-reproach:INF God living w’hôki’h badd’bârim ’âser šâma’ yhwh ’êlôheykâ w’nâsâ’tê and-rebuke:WQTL:3MS in-words which hear:QTL:3MS Yhwh God-your and-lift-up:WQTL:2MS haššĕrît hammišâ’â t’pillâ b’ad the-remnant the-(one)-left:QOT:FS prayer on-be half-of

‘And he said to him, “Thus says Hezekiah, ‘This day is a day of distress and rebuke and contempt, for the sons have come to the point of birth but there is not strength to birth them.’ Perhaps Yhwh your God will hear all the words of Rab-Shaqeh whom the King of Assyria, his master, sent to reproach the living God and will rebuke the words that Yhwh your God heard; and so, you should lift up a prayer on behalf of the remnant who are left.’” ’ (2 Kgs 19.3–4)

While Talstra’s example illustrates the value of a discourse approach, it also demonstrates
the need for a discourse approach to be informed by a semantic analysis at the verbal and clausal level. This is apparent from his discussion of major translations of 2 Kings 19.3–4, some of which translate the *yiqtol* in verse 4 (*yišmaḥ*) with an English Past tense verb (e.g., RSV). While Talstra disagrees with the translators’ willingness “to play with the ‘tense’, ‘mood’ and even ‘aspect’” of the *yiqtol* verb form (1997:87), further along in his study he discounts the semantic value of morphological forms, claiming that tense and aspect “are not directly indicated by grammatical markers, but their values can be derived from the settings of the text-syntactical parameters. Neither ‘tense’ nor ‘aspect’ are basic categories of the Hebrew verbal system as such, but they can be applied as categories of reference pointing to what is being expressed by the texts” (1997:101). With this judgment on the morphology of the verb forms in BH, it is hard to understand on what basis Talstra can object to a past tense rendering of *yiqtol* in 2 Kings 19.4.

### 2.6.2.2 Alviero Niccacci


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²⁹This listing includes only his English publications related to the verb. His 1990 work is a translation of his Italian work originally published in 1986. For a fuller listing of his publications see Niccacci 1997:201–2.
Also in keeping with Talstra, Niccacci values a discourse-level analysis over clause-level: “a discourse analysis is a necessary, even indispensable, starting point” for analyzing the Hebrew text (1994b:118).

Niccacci’s theory, however, is distinct from Schneider’s and Talstra’s in two ways. First, Niccacci gives a greater role to TAM in his theory. While he basically agrees with Talstra that TAM are discourse derived, Niccacci attempts to set up basic guidelines concerning the correlation of TAM values with each discourse type: “We can affirm that verb forms have fixed temporal reference [= absolute tense; no aspect] when they are verbal sentences [i.e., verb first sentences] and/or indicate the mainline of communication both in narrative and in direct speech. On the other hand, they have a relative temporal reference [= aspect; relative tense] when they

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30Niccacci in his earlier writings used “discourse” (1989:19) for Weinrich’s “Besprechen”; he later switched to “direct speech” to avoid confusion; however, the latter terminology is misleading in its own way (1994:119).
are nominal clauses [i.e., non-verb first clauses] and indicate a subsidiary line of communication” (1994b:129). With respect to the TAM of wayyiqtol, Niccacci takes the idiosyncratic view that the form represents two distinct verbs (not simply two functions), which he labels the narrative wayyiqtol and the continuative wayyiqtol: “Both in discourse and in narrative, continuative wayyiqtol carries on the tense value of the preceding verb form. . . . On the contrary, the [discourse section] initial, narrative wayyiqtol possesses simple past tense value on its own” (1989:15; cf. relative waw theories, 2.2.1).

Second, Niccacci has made Schneider’s and Talstra’s non-standard definitions of verbal and nominal clauses the centerpiece of his theory: every clause that begins (excluding negatives and waw conjunction) with a finite verb is labeled verbal clause; every clause that begins with a noun is labeled a nominal clause. The latter category they (Schneider, Talstra, and Niccacci) further divide into simple nominal clause (i.e., verbless clauses) and compound nominal clause, which has a finite verb in non-initial position (Niccacci 1994b:119; see Schneider 1982:163–67). This approach, which is derived from Arabic grammarians, is very much at odds with Western linguistic tradition, which defines verbal and nominal clauses on the basis of the presence or absence of a finite verb form (see Gross 1999). Niccacci has strenuously defended Schneider’s approach in numerous articles (e.g., 1989, 1993, 1996), arguing that “first position belongs to the predicate in Biblical Hebrew” (1989:9): “Thus the effect of putting the finite form in second position is to demote the verb. At the sentence level this is done by putting emphasis on the nominal or adverbial element, which takes the first position. At a broader level, however, there is no emphasis on the element occupying the first position. Instead the sentence as a whole is made dependent on another that has a first position verb form and indicates the main level of
communication” (1989:24; see Longacre 1996:264). Niccacci even gives a determinative role to word order in defining discourse types: (way)yiqtol is clause initial in narrative (i.e., wayyiqtol) and non-clause initial in speech (i.e., yiqtol); similarly, (we)qatal is clause initial in speech (i.e., weqatal) but non-clause initial in narrative (i.e., qatal) (1990:32). To his credit, however, Niccacci notices the word order division between indicative (non-clause initial) and modal (clause initial) use of yiqtol (1987) (see 2.4.3 above).

2.6.4 Summary

This survey has looked at two popular ‘schools’ of discourse analysis of the Hebrew Bible. Longacre’s theory derives from his extensive discourse work in a variety of languages (see bibliography in Longacre 1996:342–43). Thus far Longacre has only published studies on narrative sections of the Hebrew Bible; however, Kathryn Partridge has written a thesis under his direction applying Longacre’s approach to the narrative poems in the book of Psalms (i.e., Psa 78, 105, 106) (1995). The major criticism leveled at Longacre is that without a semantic foundation his form-meaning correlations have no objective basis for evaluation. The usefulness of his abundance of discourse types has also been questioned.

The second discourse theory of Weinrich-Schneider-Talstra-Niccacci is inferior to Longacre’s in several regards. First, their distinction between verbal and nominal clauses is non-standard and a source of confusion among Hebraists. Second, their foreground-background distinction is also idiosyncratic: in Talstra’s and Niccacci’s theories the distinction appears to be predicated on the idea that foregrounded events are more highlighted than background events. By contrast, Longacre’s verb rankings (table 2.8; see also table 1.21) is less problematic because it is based
on more widely held notions of what is salient in discourse (1996:24; see Hopper and Thompson 1980); nevertheless, the concept of saliency is in need of further clarification (see 4.2.2).

Discourse analyses of BH have clashed with the traditional grammar approach because they have insisted not simply that the discourse level is worthy of study, but that primary or even exclusive attention should be paid to it. This sentiment is expressed in one or another way in all the theories surveyed above: Longacre assumes that by examining them at the discourse level, verb forms “are most surely and concretely described” (1989:59); Talstra tries to mediate the two positions by pointing out that it is simply an issue of “priority” between discourse level analyses and traditional grammar analyses (1997:85–86); finally, Niccacci calls discourse analysis “a necessary, even indispensable, starting point” (1994b:118). Where the latter scholars allow TAM values, they consider these to be syntactically signaled rather than morphologically (Talstra 1997:88; Niccacci 1994b:129). However, as Jan Joosten points out, semantic analysis and discourse analysis should be complementary approaches to understanding the BH text (1997:51–52). Bache expresses a similar sentiment in his criticism of Weinrich’s discourse approach: “To conclude, the problem with Weinrich’s theory of tense is that it confuses grammatical meaning with literary function. An analysis of the stylistics of certain linguistic items cannot and should not replace an analysis of grammatical meaning. Nor should an analysis of grammatical meaning be carried out without a view to textual function” (1985:24). This criticism of discourse approaches is further developed in chapter four (4.1).

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31 An extreme example of this emphasis on discourse function is Harald Baayen’s study of qatal in which he concludes that the verb has no TAM value, only a discourse-pragmatic function to signal to the reader that the event is only loosely linked with the previous information in the discourse (1997).
2.7 Recent Multi-Parameter Theories

In the last ten years the number of articles, dissertations, and monographs dealing with the BHVS has significantly increased. A common denominator of most of these studies is that they feature multiple parameters, including tense, aspect, modality, and sequentiality. This survey organizes these studies under two rubrics: theories that feature modality as one of their main parameters; and those that feature sequentiality. This approach to organizing the studies reflects the growing interest in modality and the BHVS and the renewed interest in sequentiality and the waw-prefixed forms—essentially a revitalization of the idea consecution, a feature of the Ewald-Driver standard aspectual theory (see 2.2.2–3).

2.7.1 Modality-plus Theories

Only recently has modality been attended to in studies of the BHVS. Conservatively, scholars have simply highlighted the indicative-modal (deontic) division in the BHVS as important for understanding the system as a whole. Often, this standard indicative-modal distinction is highlighted by substituting real and irreal (or some variety) for the traditional indicative and modal labels (see 2.7.1.1). More progressive models treat as modal forms that have traditionally been viewed as indicative (e.g., weqatal, yiqtol), sometimes identifying modality as more in ascendancy than aspect or tense in the BHVS (see 2.7.1.2). Unfortunately, these models are often weakened by misapplication of the sprawling concept of modality (see 2.7.1.3).

2.7.1.1 Antonio Loprieno and Susan Rattray

Antonio Loprieno’s and Susan Rattray’s models of the BHVS may appropriately be treated
together on the basis that they both construct their models on the modal parameter of ±real and an aspectual parameter. In Loprieno’s model of the Semitic verbal system, given in Table 2.11, the ±real opposition correlates with the traditional indicative-modal distinction, and his aspectual treatment is based on Rundgren’s privative oppositional model of Semitic (see 2.5.4) (1986:110n.2).

**Table 2.11.** Loprieno’s aspectual-modal model of the BHVS (adapted from 1986:110, 180):

<table>
<thead>
<tr>
<th></th>
<th>Unmarked (neutral)</th>
<th>Perfective (marked)</th>
<th>Imperfective (unmarked-negative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>[−] Real</td>
<td>Imperative</td>
<td>Subjunctive (preserved in BH Cohortative)</td>
<td>Jussive</td>
</tr>
<tr>
<td>[+ Real]</td>
<td>(way)yiqtol</td>
<td>qatal</td>
<td>yiqtol</td>
</tr>
</tbody>
</table>

Susan Rattray’s modal parameter derives from Comrie’s observation that some languages are tenseless, consisting instead of a realis : irrealis opposition (Comrie 1985:51; Rattray 1992:28).³² While one would expect that her realis : irrealis modal parameter would align fairly well with Loprieno’s ±real one, the graphic illustration of her model in Table 2.12 refutes this notion. Her second parameter is defined by the opposition of perfective : imperfective.

**Table 2.12.** Rattray’s modality-aspect model of the BHVS (based on 1992:149–50).

<table>
<thead>
<tr>
<th></th>
<th>Perfective</th>
<th>Imperfective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realis/</td>
<td>qatal (and weqatal)</td>
<td>qotel</td>
</tr>
<tr>
<td>Immediate Reality</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irrealis/</td>
<td>Imperative (Juss., Coh.)</td>
<td>yiqtol (and wayyiqtol)</td>
</tr>
<tr>
<td>Non-immediate Reality</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Nevertheless, this model of Rattray’s theory belies the confusion in her discussion. She talks about both a perfective : imperfective as well as progressive : non-progressive aspectual opposition without ever explaining their relationship. For instance, in her summary she states that

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³²Rattray’s theory suffers from its heavy reliance on mostly outdated linguistic works, namely, Comrie (1976, 1985) and Givón (1982, 1984, 1990).
“Hebrew distinguishes between progressive and non-progressive aspects” (1992:149), but she goes on to identify forms as perfective (qatal, imperative) or imperfective (qotel) and yiqtol as non-progressive, but identifies no form as progressive (1992:149–54).

Likewise, Rattray never fully clarifies the distinction between realis and immediate reality, on the one hand, and irrealis and non-immediate reality, on the other. Yet the distinction is apparently important since yiqtol is marked as non-progressive irrealis while wayyiqtol is non-progressive, non-immediate reality (1992:150). The association between these two forms is odd in any case, in light of her lengthy discussion concerning the historical development of the BHVS. The import of her diachronic discussion is not at all clear.

Ultimately, however, both Loprieno’s and Rattray’s models founder on the debated issue of whether realis : irrealis is properly a modal category (see 1.7.2.4). The traditional distinction of indicative and modal verbs in the BHVS does not correspond to a realis : irrealis distinction; this opposition predominantly corresponds to (and often develops into) a future : non-future tense distinction (Bhat 1999:17), whereas the qatal : yiqtol opposition more closely correspond to a past : non-past division. Finally, Bybee, Perkins, and Pagliuca note that languages rarely express the binary opposition realis : irrealis in verbal morphology (1994:237–38).

2.7.1.2 Jan Joosten

Beat Zuber’s theory is in the same vein as the reductionist theories of Michel (1960), Kustár (1972), and Johnson (1979) (2.5.6). However, Zuber defines the BHVS as primarily expressing modality. The semantically equivalent, stylistic alternatives qatal and wayyiqtol, which Zuber labels “recto-Formen,” express indicative predications. Similarly, the semantically equivalent,
stylistic alternatives *yiqtol* and *weqatal*, which he labels “obliquo-Formen,” express modal or future predication (1986:27). Although Zuber’s theory has never attained prominence, it has served as an important impetus for Jan Joosten’s modal theory of the BHVS.

Following Zuber, Joosten argues that the primary division in the BHVS is not an aspectual opposition but one between indicative and modal (1997:57). It is apparent from table 2.13, however, that Joosten’s division between indicative and modal does not correspond to the traditional division, since he categorizes both *yiqtol* and *weqatal* as modal.

<table>
<thead>
<tr>
<th>INDICATIVE</th>
<th>MODAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>wayyiqtol</em> = past tense</td>
<td><strong>non-volitive</strong></td>
</tr>
<tr>
<td><em>qatal</em> = anterior tense</td>
<td><em>yiqtol</em> (future), <em>weqatal</em> (modal-future and past iterative)</td>
</tr>
<tr>
<td><em>qotel</em> = present tense</td>
<td><strong>volitive</strong></td>
</tr>
<tr>
<td></td>
<td>Imperative, Jussive, Cohortative</td>
</tr>
</tbody>
</table>

While this modal treatment of *yiqtol* and *weqatal*, alongside the traditional (deontic or volitive) modals, is distinctive of Joosten’s model (following Zuber), it is also the most troublesome part of his theory. Joosten must explain the examples of *weqatal* and *yiqtol* expressing past habitual and past progressive (for *yiqtol*) events in order to maintain his modal identification of these forms. In his 1992 article he argues on analogy with the past habitual use of the English modal *would* that past habitual uses of *weqatal* may be identified as modal, an extension of the form’s primary modal meanings of prediction, potentiality, conditionality, obligation (1992:7–8). However, Bybee, Perkins, and Pagliuca have pointed out that the past habitual and modal (counterfactual) “would” in English have different etymologies (1994:238–39), and cannot be related in the way Joosten proposes.

Similarly, Joosten explains *yiqtol* expressing habitual events as modal, and dismisses claims that *yiqtol* expresses past progressive events: “Although the relatively large number of iterative
instances could be explained as imperfective, the absence of clear examples of durative *yiqtol* (in the past) and the presence of prospective and modal functions show it preferable to ascribe a basic modal function to this verbal form synchronically. In a past tense context, *yiqtol* signals that an action is not real, implying either that it could yet be realized subsequently or that, on past experience, one might expect it to be realized subsequently” (1999:25). Nevertheless, the most serious problem with Zuber and Joosten’s modal approach to the BHVS is that they have not made a case against the existence of indicative future expressions (admittedly some linguists have argued this, see Binnick 1991:389), yet this assumption appears to underlie their classification of *yiqtol* as modal rather than indicative.

Joosten’s model features three indicative forms: past tense *wayyiqtol*, anterior (= perfect) tense *qatal*, and present tense *qotel*. He defines past tense as “contemporaneity with a moment in the past,” and anterior tense as expressing “anteriority to . . . the moment of speaking” (1997:60). Joosten recognizes, however, a “partial promiscuity” between the two forms, which he explains on the basis of the restriction of *wayyiqtol* to clause initial position (1997:61–62). However, this appears to be an ad hoc explanation for the abundant examples of *qatal* expressing simple past tense (e.g., Gen 1.1, etc.). The other indicative form, *qotel*, expresses “contemporaneity with the moment of speaking” (1997a:60). While Joosten’s inclusion of *qotel* in his model may be laudable (see Hoftijzer 1991), his reasons for including the form in his model appear prima facie to be motivated by his exclusion of *yiqtol* from the indicative system, leaving his model without an indicative form to express present events.
2.7.1.3 Vincent DeCaen

Vincent DeCaen’s model, like Joosten’s, is defined by modality and tense, as illustrated in figure 2.6. Aspect is peripheral, all the forms defaulting for perfective and qotel alone expressing imperfective (1995:221–22).

This tripartite model of the BHVS is based upon three other tripartite universal models DeCaen constructs for tense, aspect, and modality: past : non-past (present : subjunctive); perfective : imperfective (progressive : perfect); and real : irreal (deontic : epistemic) (1995:205, 210, 218).

DeCaen’s tripartite models, however, are problematic on several points: (1) his BH model fails to include the weqatal form and makes the modal category a variety of non-past tense (see fig. 2.6); (2) his universal model for aspect categorizes perfect as a variety of imperfective aspect (1995:205) and the intersection of his universal models with each other is not discussed.

In a subsequent work DeCaen includes weqatal, defining the BHVS with the feature chart given in table 2.14.

<table>
<thead>
<tr>
<th>Form</th>
<th>Modality</th>
<th>Past</th>
<th>Verb Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>yiqtol (long)</td>
<td>0</td>
<td>0</td>
<td>verb second</td>
</tr>
<tr>
<td>qatal</td>
<td>0</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>(way)yiqtol (short)</td>
<td>+</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>weqatal</td>
<td>+</td>
<td>+</td>
<td>verb first</td>
</tr>
</tbody>
</table>
DeCaen’s modal : non-modal distinction follows his teacher Revell’s word order distinction; however, DeCaen refines Revell’s clause initial description of modals within a government and binding framework (see Chomsky 1981): modals are verb-subject word order and non-modals are subject-verb word order. However, by applying this distinction DeCaen is forced to treat both waw-prefixed forms as modal. In the case of wegatal, DeCaen’s modal treatment parallels Joosten (1995:121-26). By contrast, DeCaen’s treatment of wayyiqtol as modal is problematic (despite the possible etymological connection with the Jussive, see Huehnergard 1988:20; 3.3.4.1). He explains the predominate past (indicative) meaning of wayyiqtol as the result of a tense neutralization process that reanalyzes wayyiqtol as a sequential verb form (1995:289–90). Unfortunately, this explanation for wayyiqtol eschews the diachronic evidence, which indicates that indicative past tense was a primary semantic value of the West Semitic *yaqtul, not a result of tense neutralization (see 2.3.2).

2.7.1.4 Ronald S. Hendel

Ronald Hendel’s article is helpful in that it gives some picture of the variety of parameters required—including modality—to construct an adequate model of the BHVS. His approach is to examine some of the “margins” or less typical uses of the qatal and yiqtol forms as a basis for considering the entire system. He looks at the parameters of situation aspect, viewpoint aspect, relative tense, and modality, arriving at the description of the BHVS given in table 2.15.
Hendel’s tense-aspect-mood description of *qatal* and *yiqtol* (adapted from 1996:168, 174).

<table>
<thead>
<tr>
<th>Situation aspect-viewpoint aspect-relative tense</th>
<th>Modality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>static:</strong> <em>qatal</em></td>
<td><em>yiqtol</em></td>
</tr>
<tr>
<td>a. relative non-future states</td>
<td>unreal or polite or real</td>
</tr>
<tr>
<td>b. perfective state (zero tense)</td>
<td>+perfectivity</td>
</tr>
<tr>
<td><strong>yiqtol</strong></td>
<td></td>
</tr>
<tr>
<td>a. relative future state</td>
<td></td>
</tr>
<tr>
<td>b. imperfective state (zero tense)</td>
<td></td>
</tr>
<tr>
<td><strong>dynamic:</strong> <em>qatal</em></td>
<td><em>yiqtol</em></td>
</tr>
<tr>
<td>a. relative past perfective event</td>
<td>real or real + perfectivity</td>
</tr>
<tr>
<td>b. perfective event (zero tense)</td>
<td>imperfection</td>
</tr>
<tr>
<td><strong>yiqtol</strong></td>
<td>volitves</td>
</tr>
<tr>
<td>a. relative non-past imperfect. event</td>
<td>real or real + perfectivity</td>
</tr>
<tr>
<td>b. imperfective event (zero tense)</td>
<td></td>
</tr>
<tr>
<td>c. relative future event (zero aspect)</td>
<td></td>
</tr>
<tr>
<td><strong>deontic:</strong> <em>qatal</em></td>
<td><em>yiqtol</em></td>
</tr>
<tr>
<td><strong>epistemic:</strong> <em>qatal</em></td>
<td>unreal or real-remote</td>
</tr>
<tr>
<td><strong>yiqtol</strong></td>
<td>real</td>
</tr>
</tbody>
</table>

According to Hendel, *qatal* and *yiqtol* express both aspect and tense, depending on the context; however, aspect is more basic to the forms: “As a general rule, where there are no contextual indicators of relative tense value, the aspectual sense is primary” (1996:165; cf. Kuryłowicz, 2.4.2). The likewise context-conditioned modal meanings for *qatal* and *yiqtol* contrast with each other and/or the volitive forms in terms of perfectivity: imperfectivity or real: unreal, as indicated in table 2.15. Thus, Hendel distinguishes between the two prohibitory constructions *lō*’-*yiqtol* and ’al-Jussive in terms of imperfectivity (unbounded prohibition) and perfectivity (a specific event), respectively (1996:170).

Hendel’s study posits some important correlations between TAM categories that are important for constructing a model of the BHVS (e.g., *qatal* + static = present or past time reference). Nevertheless, there is a basic weaknesses in his approach, evident in his terminology: he describes the taxonomic items as representing the “grammaticalization of meaning,” under which he subsumes “verbal inflection and syntactic or contextual implicature” (1996:176). However, this is a very broad notion of grammaticalization with respect to TAM; Comrie’s definition of grammaticalization of TAM as relating to verbal bound morphological marking is more typical (1976:6–11). This terminology betrays Hendel’s confusion of form and function,
as does his heavy reliance on context as the determiner of meaning. In other words, granted that the BH verbal forms may express aspect, tense, and modality (as any language may), for which semantic parameter is each verb form marked?

2.7.2 Sequentiality-plus Theories

The theories surveyed under this heading combine some variety of semantic parameter(s) with the parameter most often labeled sequentiality. The label sequentiality is particularly problematic since Hebraists usually attach a different sense to the term than is commonly associated with it by linguists. Most linguistic studies reserve the term sequential to refer to under-marked chained verb forms that rely on another fully-marked verb for their semantic value (e.g., Longacre 1990; Marchese 1988). By contrast, most studies of the BHVS associate the term sequential with temporal succession—the phenomenon whereby events are portrayed in the order in which they occur in the narrative world (see 4.2.1). Although the terminology of each study is retained in the following survey, temporal succession is employed in subsequent discussion of the phenomenon.

2.7.2.1 Douglas M. Gropp

Gropp begins his study with four criticisms of previous models: (1) they have tried to construct models that are “valid for all texts and genres of the Hebrew Bible”; (2) they have confused diachrony and synchrony, and in their search for a primarily diachronic explanation they have neglected the synchronic data; (3) many, especially older studies, have begun with the assumption that basic to the BHVS are the two polar forms—qatal and yiqtol; (4) they have failed to distinguish between the “general” and “contextual” meanings of forms (1991:45–46).
In light of these weaknesses, Gropp (1) restricts his model to describing “Classical Hebrew prose” as represented in the books of Genesis–Kings and Ruth; (2) he takes a “self-consciously synchronic approach”; (3) he treats “six distinctive finite verb forms”—qatal, wayyiqtol, yiqtol, weqatal, direct volitive (Imparative, Jussive, and Cohortative), and indirect volitive (waw-prefixed Imperative, Jussive, Cohortative)—instead of just qatal and yiqtol (1991:46–47); and (4) he seeks to determine “general” meanings for each verb form, while allowing for “secondary (or even tertiary) contextual meanings” (1991:55; see 57–58).

Gropp’s model, summarized in table 2.16, is defined by three binary oppositions: ± volitive, ± anterior, ± sequence (1991:55). The first parameter, ± volitive, distinguishes between the indicative and deontic modal verb forms. The second parameter, ± anterior, is relative tense. The third parameter is ± sequence, which Gropp defines as “contingent temporal succession,” using Longacre’s terminology (1991:50; see Longacre 1996:8–9). Gropp applies this last parameter not only to the waw-prefixed verb forms but to the deontic forms with a waw conjunction, which Paul Joüon labeled “indirect volititives” (Gropp 1991:50–51; see Joüon 1993:381).

<table>
<thead>
<tr>
<th></th>
<th>+ Anterior</th>
<th>- Anterior</th>
<th>+ Volitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Sequence</td>
<td>qatal</td>
<td>yiqtol</td>
<td>Direct volitive</td>
</tr>
<tr>
<td>+ Sequence</td>
<td>wayyiqtol</td>
<td>weqatal</td>
<td>Indirect volitive</td>
</tr>
</tbody>
</table>

That Gropp is not completely successful in overcoming the weaknesses of other treatments of the BHVS is apparent from his own comments. First, he argues that “a diachronic approach can never directly answer the synchronic question” (1991:46); however, the use of diachronic data appears unavoidable, even in his model, where he uses them to distinguish the wayyiqtol, yiqtol, and Jussive prefix conjugations (1991:46–47). Second, Gropp himself admits that
categorization of *wayyiqtol* as relative tense is problematic since it “almost always implies anteriority specifically to the moment of speaking”—i.e., absolute tense. His solution is ad hoc: “In order to account for the relationship between the perfect [*qatal*] and the narrative [*wayyiqtol*] we need to posit a semantic rule such that +ANTERIOR in the context of +SEQUENCE, is to be interpreted as +PAST, or in other terminology, the interaction between +RELATIVE PAST and +SEQUENCE converts the form semantically to an +ABSOLUTE PAST” (1991:55). Finally, since Gropp proposed his model, Muraoka (1997) has voiced doubts about the legitimacy of Joüon’s indirect volitive classification. Even if the category of indirect volitive is accepted, contingent temporal succession is too narrow a parameter with which to describe the various semantic relationships that these forms exhibit with their conjoined clause (see Joüon 1993:381–86).

2.7.2.2 Randall Buth

In contrast to Gropp, Buth claims that the BHVS demands a diachronic explanation (1992:98). It is rather ironic then that Buth’s diachronically based model, given in table 2.17, is so similar to Gropp’s model, which is constructed out of a “self-consciously synchronic approach” (Gropp 1991:46).

<table>
<thead>
<tr>
<th>Definite Past-Perfective</th>
<th>Indefinite Future-Imperfective</th>
</tr>
</thead>
<tbody>
<tr>
<td>[x] <em>qatal</em></td>
<td>[x] <em>yiqtol</em></td>
</tr>
<tr>
<td><em>wayyiqtol</em></td>
<td><em>weqatal</em></td>
</tr>
</tbody>
</table>

Buth’s labels of thematic continuity : thematic discontinuity do more than just avoid the misleading term sequentiality (though he may have intended this); Buth’s concept of thematic
continuity appears to combine the ideas of sequentiality and foregrounding (1992:101–3). Buth labels the other parameter as both tense and aspect, though he prefers the particularly non-committal terms “definite” and “indefinite,” which he notes are “zero-meaning” words that would require definition if used to describe the BHVS (1992:95). Buth uses these as cover terms for the various TAM functions of the BH verb forms: “There are verb forms for definite events (that is, past or perfective or decisive or contrary to fact) versus verb forms for indefinite events (future or imperfective or potential or repetitive)” (1992:103). Buth, no less than Hendel, appears to struggle with the form-meaning issue. Although he claims that “like any human language, Hebrew is able to make time and aspect distinctions” (1992:96), the plethora of TAM expressions associated with the four finite indicative verb forms has led him to apply vacuous labels to the forms, leaving his model wanting.

2.7.2.3 Yoshinobu Endo

Yoshinobu Endo’s model of the BHVS, given in table 2.18, differs little from Gropp’s model (table 2.16 above). The only significant difference is his use of tense-aspect (past/complete : non-past/incomplete) versus Gropp’s relative tense (anterior : non-anterior), and his identification of weqatal as a sequential volitive form, based on the fact that it is commonly conjoined with deontic modal forms (see Joüon 1993:398–400).

<table>
<thead>
<tr>
<th>Non-Sequential</th>
<th>Past (complete)</th>
<th>Non-past (incomplete)</th>
<th>Volitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>qatal</td>
<td>yiqtol</td>
<td>Impv., Juss., Coh.</td>
<td></td>
</tr>
<tr>
<td>(way)yiqtol</td>
<td>(we)qatal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2.18. Endo’s tense-aspect-discourse model of the BHVS (adapted from 1996:321).
Unfortunately, Endo’s explanations of his tense-aspect and sequentiality parameters are problematic. Endo credits Comrie for his definition of aspect, but proceeds to distinguish between the complete: incomplete pair and perfective: imperfective opposition (1996:42), in contrast to Comrie who equates perfective and complete (1976:18–21). Endo’s complete: incomplete opposition appears to confuse ontology with aspect (see 1.3.1) since he determines that the complete: incomplete “aspectual” opposition is contiguous with a past: non-past tense distinction. Although Endo contends that it is impossible to determine which category—tense (past: non-past) or “aspect” (complete: incomplete)—“presupposes the existence of the other” (1996:64), the problematic status of his “aspectual” opposition and its correlation with tense effectively reduces his tense-aspect parameter to tense alone (so Cook:forthcoming).

Endo’s main focus in his study has to do with the marking of sequentiality in BH. By sequentiality Endo means temporal succession (1996:67), which he distinguishes from the discourse concepts foreground-background: “So far as the ‘backgrounding-foregrounding’ theory is concerned, this distinction seems not to be a determinative factor for the choice of verbal forms. Such a distinction may be observed rather as a secondary phenomenon or by-product of the issue of the sequentiality and non-sequentiality” (1996:297).

Endo concludes that the waw conjunction does not affect temporal succession (hence he places it in parentheses in his model); rather, the prefix (way)yiqtol/yiqtol and suffix verbs (qatal/(we)qatal) each represent two separate homonymous forms, one marked for sequentiality, the other not: “It is quite plausible that in biblical Hebrew there are two sets of conjugations in each temporal-aspectual distinction, which could have originally been distinguished by stress position (e.g. qatāla for non-sequential versus qatalā for sequential; yiqtól(u) for non-sequential
versus yiqtol for sequential, etc.)” (1996:321n.1; cf. Bauer 1910 and Driver 1936; see 2.3.1).

2.7.2.4 Peter Gentry

Peter Gentry’s theory of the BHVS is the most sophisticated multi-parameter theory discussed here. He makes a point of the fact that his model is built on the foundations of previous studies, including Revell’s (1989), Gropp’s (1991), and Buth’s (1992), among others (1998:9–10). His model, given in table 2.19, includes a perfective: imperfective opposition intersecting with a sequentiaility; tense, in his estimation, “is secondary, being determined by a combination of aspect and the discourse framework” (1998:15). Like Gropp and Endo, Gentry includes the deontic modal forms in his model, labeling them projective modality in contrast with assertive modality (= indicative) (1998:21). Unlike previous models, however, Gentry distinguishes between perfective and imperfective projective modality, includes both affirmative and negative statements in his model, and distinguishes narrative and conversational discourse types.

<table>
<thead>
<tr>
<th>Table 2.19. Gentry’s tense-aspect-modality-discourse model of the BHVS (adapted from 1998:39).</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assertive Modality</strong></td>
</tr>
<tr>
<td>---------------</td>
</tr>
<tr>
<td><strong>Perfective</strong></td>
</tr>
<tr>
<td>±Past</td>
</tr>
<tr>
<td><strong>Non-Sequential</strong></td>
</tr>
<tr>
<td>(neg.)</td>
</tr>
<tr>
<td>[x] qatal</td>
</tr>
<tr>
<td>(lō⁺ + qatal)</td>
</tr>
<tr>
<td><strong>Sequential</strong></td>
</tr>
<tr>
<td>weyiqtol</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Narrative</strong></td>
</tr>
<tr>
<td><strong>Conversation</strong> (Direct Speech)</td>
</tr>
</tbody>
</table>

Gentry, like DeCaen, distinguishes between projective (deontic modal) and assertive (indicative) forms in terms of word order; he argues that except for the imperative form no verbs are morphologically marked for modality, rather they are syntactically marked (1998:29–30).
Thus, Gentry rejects the view that the paragogic -ā on the cohortative marks modality (see 3.3.4.1). Instead, he compares the paragogic -ā to the Akkadian ventive ending (see von Soden 1952:107), and identifies yiqtol (< *yaqtulu) and the deontics (i.e., Jussive and the so-called Cohortative) as imperfective and perfective aspect, respectively (1998:29; see Hendel, table 2.15).

Likewise, the two prohibition constructions differ in terms of aspect: 'al + Jussive expresses projective modality with perfective aspect (tense is not an issue in projective modality) and lō' + yiqtol expresses projective modality with imperfective aspect (1998:23). In support of his aspectual distinction within projective modality, Gentry points out that in Greek different (aspectually distinguished) stems can be conjugated as imperative (see Smyth 1956:416). It is unclear, however, how this aspectual distinction might be semantically expressed in these contrastive projective modal forms, though one may presume it would be similar to Hendel’s distinction discussed above (2.7.1.4).

2.7.2.5 Galia Hatav

Hatav’s theory of the BHVS includes the parameters of aspect (perfect and progressive), modality, and sequentiality (i.e., temporal succession), as shown in table 2.20.

| Table 2.20. Hatav’s aspect-modality-discourse model of the BHVS (adapted from 1997:29). |
|---------------------------------|----------|----------|----------|----------|----------|
| wayyiqtol | wegatal | yiqtol | qatal | qotel |
| Sequentiality | + | + | - | - | - |
| Modality | - | + | + | - | - |
| Progression | - | - | - | - | + |
| Perfect | - | - | - | + | - |

Galia Hatav’s treatment of the progression of time in discourse has already been summarized in chapter one (1.6.2); that issue is taken up again in chapter four (4.2.1).
Hatav’s schematic belies the full extent of her model: she uses *weqatal* as a cover term for all the temporally successive modal forms (*weqatal*, *waw* + *yiqtol*, *waw* + Imperative, *waw* + Jussive, and *waw* + Cohortative); similarly, *yiqtol* represents all non-temporally successive modals (*yiqtol*, Imperative, Jussive, and Cohortative) (1997:29). Thus, Hatav’s model features a temporal succession parameter intersecting with indicative and modal forms alike, as in previously discussed models (e.g., Gropp’s, Endo’s, and Gentry’s), and she identifies *yiqtol* and *weqatal* as modal, like Joosten (see table 2.13), treating the forms in conditional and habitual statements as modal (1997:123–38). Also like Joosten, Hatav identifies *qatal* as perfect (Joosten 1997:60 uses the term anterior). However, Hatav identifies *qotel* as progressive aspect, in contrast to Joosten (the only other multi-parameter model surveyed here that takes *qotel* into account), who treats it as present tense. Hatav also labels *qotel* “inclusion” because of its ability to include the reference time of other events within it (see 1.3.1 on imperfective aspect) (1997:89).

What sets Hatav’s model apart, however, is her refined analysis of temporal succession, which is central to her theory. The *waw*-prefixed forms present events as bounded and therefore advance the reference time (1997:6); by contrast, perfect *qatal* is defined by its inability to advance the reference time; rather, it expresses events as simultaneous or anterior to the event in the previous clause, often corresponding with the discourse function of backgrounding events (1997:175–88). Unfortunately, although Hatav’s treatment makes an important contribution toward understanding temporal succession (especially her identification of boundedness as the crucial factor in temporal succession; see 4.2.1), her application of it to the BHVS is problematic since, as is pointed out in chapter three (3.3.3) and four (4.3.1.1), examples exist of *qatal* advancing the reference time and of *wayyiqtol* not advancing the reference time.
2.7.2.6 Tal Goldfajn

Tal Goldfajn’s theory closely follows Hatav’s treatment of temporal succession by making boundedness a main parameter: “The clear sequential interpretation triggered by wayyiqtols in the biblical Hebrew text is closely connected with the fact that the wayyiqtol form represents situations that include their end-points. This seems to apply equally well to the weqatal form.” (1998:71; see Hatav 1997:chap. 2). By contrast, qatal and yiqtol present events as “unbounded” (1998:71).

Goldfajn’s theory also features a relative tense parameter, based on Kuryłowicz’s assumption that tense is more basic in any verbal system than aspect is (1972:90), and a discourse parameter, following Weinrich’s (1994) and Schneider’s (1982) distinction between of narrative and speech. Goldfajn thus combines Reichenbach’s R-point relative tense theory (see 1.2) with Weinrich’s distinction between narrative and speech: speech has a default reference point of the speech time (R, Ts), whereas narration has a R-point that is determined by the narration (R < Tn) (1998:114).

Goldfajn concludes (1998:115) that wayyiqtol is past-sequential, and occurs mostly in narrative (R < Tn), whereas weqatal is future-sequential and more common in non-narrative (R, Ts). By contrast, qatal and yiqtol are non-sequential (unbounded), and thus do not advance the R-time. Qatal may express repetition, simultaneity, or anteriority; the latter signification of anteriority Goldfajn determines to be a particular feature of the syntagm wayyiqtol – ’āsher (relative) – qatal (1998:146; cf. Zevit 1998; see 2.4.4). Yiqtol often indicates future events in reported speech, and past posterior (i.e., past conditional) events in narrative. Unfortunately, as with Hatav’s theory, Goldfajn’s must contend with examples of qatal advancing reference time and wayyiqtol not advancing it (see 3.3.3 and 4.3.1.1).
2.7.3 Summary

The preceding has surveyed recent theories of the BHVS under two headings: theories with modality as a main parameter, and theories with sequentiality (i.e., temporal succession) as a parameter. Nevertheless, most of the theories featuring sequentiality also feature modality in their models (Buth and Goldfajn excepted). As a whole these theories have underscored the necessity of addressing these two issues—modality and temporal succession in the BHVS (see chapter three and four).

However, these theories are still found wanting. The inclusion of a modal parameter was shown to be problematic in many cases either because the categories themselves are not clearly modal (i.e., realis : irrealis) or because the verb forms express meanings that cannot be easily subsumed under a modal category (e.g., wayyiqtol as past indicative; weqatal and yiqtol as past iterative/habitual). The objection against the theories featuring temporal succession is more substantial: none of them have made the case that any other languages morphologically mark temporal succession (see Comrie 1985:61–62). This is a serious criticism that needs to be addressed before a temporal succession parameter can be proposed as morphologically marked in BH.

Nevertheless, this survey underscores a number of important methodological issues that must be addressed in constructing a semantic theory of the BHVS. First, the TAM parameters need to be adequately defined and their interaction explored. Second, the issue of a diachronic versus synchronic approach needs to be resolved. Third, an adequate theory should encompass not only the four main finite verb forms (qatal, yiqtol, wayyiqtol, and weqatal), but qotel and the deontic modal forms (Imperative, Jussive, and Cohortative). And finally, the theory must distinguish
between morphological marking (form) and the range of meanings (function) for each form, as well as distinguish these from syntactic and/or discourse-pragmatic based meanings. The theory in chapters three and four is intended to address these and other issues.
3 A THEORY OF TENSE, ASPECT, AND MODALITY IN BH

The groundwork for this chapter was laid in chapters one and two. Chapter one explored the major issues involved in developing a semantic theory of TAM. Chapter two surveyed the present state of research on the BHVS and highlighted specific issues with respect to constructing a semantic model of the BHVS. This chapter is divided into two distinct parts based on the division of material between chapters one and two. The first part clarifies the main issues introduced in chapter one regarding TAM, focusing particularly on matters that are relevant to a semantic model of the BHVS. The second part presents a semantic analysis of the BHVS based on a grammaticalization approach.

3.1 A UNIVERSEAL EVENT MODEL

In this section a universal event model\(^1\) is constructed, and situation aspect, viewpoint aspect, phasal aspect, and their interrelationships are examined with this event model. Although tense and modality are also treated here, the model is only of minor importance to the analysis of tense, and modality must treated separately from the event model. The challenge of constructing a universal model of tense and aspect is reflected on in sober terms by Bache:

One safe conclusion is that constructing a universal grammar in a methodologically sound way is even more difficult than devising a wholly adequate, strictly language-specific approach to the analysis of a category—there are inherent methodological problems at the universal level and, at the

\(^1\)The term ‘event’ is sometimes used narrowly to distinguish between different situation aspects (e.g., Bach 1981, followed by Partee 1984 and Hatav 1997); however, the term is employed here in its more generic sense, as equivalent to ‘situation,’ in order to maintain continuity with the linguistic nomenclature used in the discussions in chapter one (i.e., E, R, S) and in order to avoid confusion with situation aspect.
same time, by somehow presupposing analyses at the language-specific level, it inherits all the problems of description at this level too. (1995:42)

Nevertheless, a universal model of tense and aspect is necessary for a typological study of TAM: without well-defined universal categories, comparison between TAM forms in individual languages is methodologically unsound since there is no measurable means to know whether the forms that are being compared are genuinely equivalent or not.

3.1.1 The Basic Event Model

From the earliest times of philosophical inquiry into tense, space has been used as a metaphor for time. In the model presented here, time is envisioned as taking up space and progressing from the left (past time) to the right (future time). The ontological divisions of past, present, and future are usually determined by the relationship of the speaker (more precisely the speech-act) to the progression of time—the present coincides with the time of the speech-act itself. Rarely, verbal forms use a default time other than the speech-act for determining past, present, and future; examples include epistolary and historical present tense forms. The present (i.e., the location of the speech-act), at the same time, is an elastic concept, capable of referring to a relatively short or long period of time—a characteristic recognized by Aristotle (Physics 4.13.222a10–33).

One of the most significant contributions to event models has been the view that event time should be analyzed in terms of intervals comprised of moments rather than bare moments themselves. Bennett and Partee (1978) first presented this approach and, subsequently, it has been almost universally accepted. Using an interval event model allows a statement such as Kathy worked all day in the garden to be evaluated as true at the interval all day, without demanding that it be true at every moment during that interval; in other words, Kathy can take
a break now and then (see Dowty, 1977:50). A model of time that is schematized in terms of space, using the concept of intervals, is given in figure 3.1.

![Figure 3.1. An interval model of time (I = interval, m = moment).](image)

A model of time and a model of events are not identical, however. To this model of time must be added means of designating phases of events. One way of doing this is by borrowing terminology from syllable phonology to analyze event structure: an event consists of an onset, a nucleus, and a coda (cf. Olsen’s use of nucleus and coda; 1.4.3). The onset refers to the preparatory phase of an event, and the coda to the resultant phase. The nucleus refers to the event proper, which consists of at least one interval (except in the case of achievements; see 3.1.2) and is bounded by an I(nitial) endpoint and a F(inal) endpoint. This basic event model is presented in figure 3.2.

![Figure 3.2. A model of events (I = initial point, F = final point, I = interval, m = moment).](image)

### 3.1.2 Situation Aspect and the Event Model

The event model given in figure 3.2 is generic, illustrating simply that all events consist of at least one interval of time (except for achievements), and a tripartite structure of onset, nucleus, and coda. Situation aspect defines the specific structure of individual events according to the
temporal characteristics of each situation type. The situation types analyzed here are five: Vendler’s four categories—states, activities, accomplishments, and achievements—plus semelfactives (“stage-level states” are not treated here since they are peripheral to the discussion of interaction among situation types and play no role in the analysis of aspect in BH).

3.1.2.1 A Privative Oppositional Model

While situation types have been variously categorized (see fig. 1.3), Olsen’s privative treatment is adopted as the basis of this discussion. Olsen’s study demonstrates a distinct advantage in treating the situation types in terms of privative oppositions with respect to the parameters of dynamicity, durativity, and telicity (see 1.4.3). Her approach allows us to discretely identify the compositional contribution of the verb itself, and to explain on the basis of pragmatic implicature shifts between situation types predicated by changes in the argument structure. Olsen’s feature chart for the five situation types is given in table 3.1 (adapted from table 1.16).

<table>
<thead>
<tr>
<th>Situational Aspect</th>
<th>Dynamic</th>
<th>Durative</th>
<th>Telic</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td></td>
<td>+</td>
<td></td>
<td>know, be, have</td>
</tr>
<tr>
<td>Activity</td>
<td>+</td>
<td></td>
<td>+</td>
<td>run, paint, sing</td>
</tr>
<tr>
<td>Accomplishment</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>destroy, create</td>
</tr>
<tr>
<td>Achievement</td>
<td></td>
<td></td>
<td>+</td>
<td>notice, win</td>
</tr>
<tr>
<td>Semelfactive</td>
<td>+</td>
<td></td>
<td></td>
<td>wink, tap, cough</td>
</tr>
</tbody>
</table>

Olsen’s use of privative oppositions in her treatment of situation aspect was only briefly illustrated in chapter one (1.4.3); here it is examined in more detail. According to Olsen, the five situation types in table 3.1 may be distinguished using three monotonic privative oppositions (see chap. 1, n.24): [+dynamic], [+durative], and [+telic]. These features are semantic, in contrast to pragmatic, and therefore cannot be canceled by contextual elements.
Thus, for example an activity like *Colin built* is atelic ([+dynamic, +durative]), but that reading can be canceled (i.e., made telic) by the addition of a singular direct object—*Colin built a chair*. By contrast, Olsen argues, if the direct object in this latter accomplishment sentence, is pluralized, as in *Colin built chairs*, the semantic telic reading is not canceled, but the sentence is read as iterative—an activity consisting of multiple (telic) accomplishments (1997:33). Similarly, an imperfective viewpoint aspect applied to the accomplishment, as in *Colin was building a chair*, does not affect the atelic reading, but makes the accomplishment unbounded (i.e., there is still an inherent endpoint, even though it has not been reached; see below, this and the following section on (a)telicity and (un)boundedness). Olsen concludes: “Thus, verbs marked [+telic] are uniformly interpreted as such, independent of other constituents or pragmatic contexts, whereas verbs unmarked for telicity do not have a homogeneous interpretation” (1997:34).

Similarly, Olsen demonstrates that dynamicity is privative: states may have their stative interpretation canceled, but the semantic dynamic reading associated with activities, accomplishments, and achievements cannot be canceled. Olsen presents numerous examples in which an English stative verb is interpreted as dynamic (1997:36–37). In languages like BH (and other Semitic languages), morphologically distinct stative verbs receive a stative (*be*) or dynamic inchoative (*become*) reading depending on the context (e.g., ḥalâ ‘be sick,’ ‘become sick’).

Finally, Olsen shows that durativity is privative by comparing accomplishments and achievements: “accomplishments are always durative, but achievements are not always punctiliar” (1997:42). Thus, an achievement verb may have its punctiliar or durative reading canceled as in *He died (suddenly / slowly over a period of weeks)* (1997:43). By contrast, the durative reading of a [+durative] marked situation cannot be canceled, as shown by the
combination of a punctiliar adverbial phrase with [+durative] situations (e.g., *Evan destroyed the room at noon*; *Jared swam laps at 6 p.m.*; *Tage knew the answer at dinner time*). In each of these examples, the durative situation is interpreted as beginning at the moment expressed by the punctiliar adverbial phrase (1997:43-44).

Somewhat less convincing are Olsen’s examples of semelfactives read as durative: *John coughed (once) for 5 seconds*, which she paraphrases as *It took John 5 seconds to cough once* (1997:47). One may still argue from such strained examples (and the evidence from achievements) that durativity is nevertheless a semantic, privative property, as Olsen has; however, the very character of semelfactives (from Latin *semel* ‘once’) as instantaneous events (see figure 3.3e below) makes such durative readings infrequent and require explicit marking to avoid an iterative interpretation (see C. Smith 1991:56).

**3.1.2.2 The Subinterval Property, (A)telicity, and Dynamicity**

In order to understand situation aspect better, we must look more closely at the relationships among the Vendlerian situation types (i.e., excluding for the moment semelfactives). The crucial features that must be analyzed with respect to these situation types are the subinterval property, (a)telicity, and dynamicity. The **subinterval property** (Bennett and Partee 1978), dubbed by others the **distributive property** (e.g., Hatav 1989, 1997), corresponds to Aristotle’s original observations on the difference between *energeia* and *kinēsis* (see 1.3.2); it deals with the same phenomenon captured by the imperfective paradox (see 1.5.1). The subinterval property means that if an event is true at an interval of time, then it is true at any subinterval of that interval. States (and activities) are understood to have this property: if *Evan was asleep* is true at I₁ (e.g.,
from 2 p.m. to 4 p.m.) then it is true of any subinterval of \( I \) (i.e., any time between 2 p.m. and 4 p.m.). By contrast, accomplishments and achievements are understood not to have the subinterval property: if *Bill built a house* is true at \( I \) (e.g., last year), then it is false at any subinterval of that year.

This distinction between states and activities, on the one hand, and accomplishments and achievements, on the other, is also described in terms of *homo-*/*heterogeneity*: situations with the subinterval property are homogeneous, whereas those that do not have the property are heterogeneous. This distinction corresponds to the division made by *(a)telicity* among the four situation types. Accomplishments and achievements are telic; that is, they have an *inherent* or *intended* endpoint (Depraetere 1995:2–3). Their [+telic] feature explains why they lack the subinterval property: since they have an inherent endpoint, they cannot be true at any interval that does not include that endpoint.

However, this two-way distinction (states and activities vs. accomplishments and achievements) based on the subinterval property (and *(a)telicity*) is overly simplistic. First, the key issue with respect to the subinterval property does not appear to be whether there is an *inherent* endpoint (i.e., *(a)telicity*), but whether there are *linguistically expressed* endpoints (i.e., *(un)boundedness*) (see 3.1.3.2). Returning to the example given above, *Evan was asleep*, the subinterval property does not strictly hold when the sentence is modified with a durative adverbial phrase: *Evan was asleep from 2 p.m. to 4 p.m.* is only true when the interval *from 2 p.m. to 4 p.m.* is completed; it is not true during any subinterval of the event (even though the unmodified statement *Evan was asleep* is true for any subinterval). Thus, the subinterval property can only be associated with certain situation types in a simplistic way; it can be affected by viewpoint
aspect as well as by temporal adverbial expressions (see further 3.1.3.2).

Second, the subinterval property does not hold for activities in the same way as it does for states. David Dowty has observed that if a state is true at a certain interval, then it is true in all its subintervals; but if an activity is true at a certain interval, then it is true at all its subintervals “down to a certain limit in size” (1986:42). In other words, if Evan was asleep is true from 2 p.m. to 4 p.m., then it is true at every subinterval between 2 p.m. and 4 p.m., but if Kathy worked is true from 9 a.m. to 5 p.m., it is true only down to a certain level of subinterval. The activity is not considered falsified, for instance, if Kathy takes a half-hour lunch break, even though for that half-hour interval Kathy worked is not literally true.

This difference between states and activities as they relate to the subinterval property appears to be rooted in dynamicty. In contrast to the subinterval property, which distinguishes states and activities from accomplishments and achievements, dynamicty sets apart activities, accomplishments, and achievements, which are [+dynamic], from states, which are not [+dynamic]. However, linguists have struggled to describe adequately the concept of dynamicty. Smith distinguishes dynamic and non-dynamic in terms of change, progress, or stages in the event nucleus: in static situations there is no change or progress; in dynamic situations there are “stages” (C. Smith 1991:28–29). Henk Verkuyl has concretized this understanding by analyzing situation aspect using concepts from localist theory.² Progress is defined by Verkuyl as movement of a theme from a source to a goal, constituting a path (1993:15). In some instances the progress is more apparent than others. For example, in John bicycled home (from the office),

---

²Localism is a linguistic approach that views locative statements (both in time and space) as more basic to semantic expression than other types of statements, which are derived from the former (see Crystal 1991:206).
progress may be expressed in terms of the location of John along the way home: initially he is still at the office \( <t_0, \text{office}> \), then he proceeds past the library \( <t_1, \text{library}> \), and then past the park \( <t_2, \text{park}> \), the last point being home \( <t_n, \text{home}> \) (see Verkuyl 1993:218). By contrast, we need to understand the progress in *Colin ate three sandwiches* metaphorically, in terms of Colin moving along a ‘path’ of sandwich eating: \( <t_0, \text{no sandwiches eaten}> \), \( <t_1, \text{half a sandwich eaten}> \), \ldots \( <t_n, \text{three sandwiches eaten}> \) (see Verkuyl 1993:239). Verkuyl distinguishes activities, accomplishments, and achievements from states by the property [+ADD TO], by which he means they express progress along a path. Because of this concept of progress in dynamicity, activities are not homogeneous in the same way as states are, but they are also not heterogeneous in the way accomplishments and achievements are; they stand somewhere in between (Smith 1999:486).

The preceding discussion has addressed the central issues with respect to situation aspect; however, the issues of (a)telicity, dynamicity, and (un)boundedness are also important to understanding the interaction of Vendler’s situation types with viewpoint aspect (3.1.3.2), and the role of situation and viewpoint aspect in the movement of narrative time (4.2.1). Further discussion, therefore, is reserved for those sections.

### 3.1.2.3 Situation Aspect and the Event Model

Having explored the pertinent issues with respect to situation aspect, it remains only to illustrate schematically the situation types with the event model, each situation type being distinguished by a different event structure as shown in figure 3.3.
FIGURE 3.3. Event models for each situation type.

a. **States** e.g., [be sick]

\[
\begin{array}{c|c|c|c}
\text{onset} & \text{nucleus} & F \text{[durative]} & \text{coda} \\
\hline
\text{preparatory} & I_1 & \text{resultant} & \text{phase} \\
\text{phase} & m_1 m_2 m_3 \ldots m_n & & \\
\end{array}
\]

b. **Activities** (\(F_{\text{arb}}\) = arbitrary final point) e.g., [walk]

\[
\begin{array}{c|c|c|c}
\text{onset} & \text{nucleus} & F \text{[arb]} & \text{coda} \\
\hline
\text{preparatory} & I_1 & \text{resultant} & \text{phase} \\
\text{phase} & m_1 m_2 m_3 \ldots m_n & & \\
\end{array}
\]

c. **Accomplishments** (\(F_{\text{nat}}\) = natural final point) e.g., [build a house]

\[
\begin{array}{c|c|c|c}
\text{onset} & \text{nucleus} & F \text{[nat]} & \text{coda} \\
\hline
\text{preparatory} & I_1 & \text{resultant} & \text{phase} \\
\text{phase} & m_1 m_2 m_3 \ldots m_n & & \\
\end{array}
\]

d. **Achievements** (dyn. = dynamic) e.g., [win]

\[
\begin{array}{c|c|c|c}
\text{onset} & \text{nucleus} & \text{coda} \\
\hline
\text{preparatory} & I_1 & \text{resultant} & \text{phase} \\
\text{phase} & m_1 m_2 m_3 \ldots m_n & & \\
\end{array}
\]

e. **Semelfactives** e.g., [knock]

\[
\begin{array}{c|c|c|c}
\text{onset} & \text{nucleus} & F \text{[arb]} & \text{coda} \\
\hline
\text{preparatory} & I_1 & \text{resultant} & \text{phase} \\
\text{phase} & m_1 & & \\
\end{array}
\]

The model for **states** (fig. 3.3a) looks identical to the basic event model in figure 3.2. It contrasts with the other event types in that it lacks a [+dynamic] nucleus. Likewise, **activities** (fig. 3.3b) differ from **accomplishments** (fig. 3.3c) only in their lack of the [+telic] feature. In the model this difference is expressed in terms of an *arbitrary* final point (\(F_{arb}\)) for activities (i.e., one does not generally *finish* walking, but stops), and an inherent or *natural* final point (\(F_{nat}\)) (i.e., [+telic])
for accomplishments (i.e., one properly finishes an accomplishment; if one stops an accomplishment, the inherent endpoint is left unreached, e.g., Bill stopped building his house).

**Achievements** (fig. 3.3d) and **semelfactives** (fig. 3.3e) differ from the other three types in that their nuclei are not infinitely extendable (i.e., they are not marked for [+durative]). In the case of achievements, there is no real nucleus; the situation is properly the transition from the preparatory phase to the resultant phase (Dahl 1997:420). Thus, importantly, when an achievement is made durative by implicature (see 3.1.2.1 above), it is the onset preparatory phase that is made durative (or alternatively, the situation is interpreted as iterative) (see 3.1.3.2). This is demonstrated by the imperfective paradox, which shows that the [+telic] final point has not been reached when the achievement is treated as durative: *He was dying (slowly)* does not entail *He has died (slowly).* By contrast, semelfactives have an instantaneous nucleus which is momentary.³ Thus, semelfactives may (rarely) receive a durative interpretation of their nucleus; however, the most natural interpretation of a semelfactive made durative (e.g., by an imperfective viewpoint) is as an iterative event: e.g., *he knocked* (for a long time) (see 1.5.1; 3.1.2.1; 3.1.3.2).

### 3.1.3 Viewpoint Aspect and the Event Model

The discussion in chapter one demonstrated that a **reference point/time** is a necessary component of a theory of tense and aspect. The relative tense theories initially demonstrated the advantages of using a reference point (1.2), and the tense-aspect theories surveyed in chapter one

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³The model presents the nucleus of the semelfactive as an interval consisting of a single moment. Rather than presenting the nucleus as a bare moment, this approach maintains theoretical consistency so that all nuclei consist of intervals and moments. While intervals present measurable periods of time, they do not need to be appreciably long periods of time.
capitalized on the concept by interpreting the relationship between the reference point/time and the event as determinative of viewpoint aspect (1.4). Klein’s tense-aspect theory, in particular, contributes an important element by defining the reference point/time not as a “point” but as an interval of time (1.4.2). Hence, the subsequent discussion intentionally eschews Reichenbach’s term reference point (R) in favor of the label reference time (esp. in chap. 4) or, in the immediate context of the event model, reference frame (RF).

3.1.3.1 The Perfective : Imperfective Opposition

Following the lead of the tense-aspect theories surveyed in chapter one (1.4), viewpoint aspect is defined here by the relationship of a reference frame (RF) to the event frame (EF)—the event frame being equivalent to the event model described above (3.1.2).

The two main types of viewpoint aspect discussed in chapter one are the perfective and imperfective. The relationship between the reference frame and event frame for these two viewpoint aspect types were described there as analogous with camera lenses: the perfective view is like a wide-angle lens, while the imperfective is like a telephoto lens (1.3.1). This analogy captures the two dimensions of the relationship between the reference frame and event frame—scope and distance.

The scope refers to how much of the event frame is included in the reference frame. In the case of the perfective, the reference frame includes an entire interval of the event frame nucleus. By contrast, the reference frame of the imperfective viewpoint aspect is included within an interval of the event frame nucleus; it excludes the initial and final endpoints of the interval (see

\[ \text{Note that Chung and Timberlake (1985) use } \text{event frame } \text{to refer to what I am calling the reference frame.} \]

\[ \text{This approach avoids the over richness which Klein’s definition of perfective } (R \cap E) \text{ leads to (see table 1.12).} \]
Gestalt psychology (as it relates to the discussion here) deals with the processes of perception. It maintains that images are perceived as whole patterns rather than as distinct parts, and formulates principles to explain the perceptual processes, such as those principles discussed here. However, it is a widespread misconception that Gestalt psychology is only concerned with a psychology of perception (see Kanizsa 1979:55–71).

Hatav 1993). Unfortunately, this ‘whole’ view characterization of the perfective creates the impression that the situation is complete(d); likewise, the imperfective’s characterization as a ‘partial’ view implies that the situation is incomplete(d). These misleading implications may be explained, so as to avoid confusion, by drawing on Gestalt theory, and conceptualizing the situation spatially as in figure 3.4: each arrow represents an interval of the event frame; the brackets represent the reference frame for each viewpoint.

**Figure 3.4.** Gestalt illustration of the perfective and imperfective viewpoints.

a. Perfective viewpoint

b. Imperfective viewpoint

Perfective aspect includes an *entire* interval in its reference frame, as the brackets in figure 3.4a illustrate; thus it gives the impression that the event is complete(d). However, the interval in the reference frame is not necessarily the *only* interval for which the situation holds, as shown by the broken-line arrows outside of the brackets. By contrast, imperfective aspect excludes the beginning and end of an interval from its reference frame, represented by the placement of the brackets in figure 3.4b. As Gestalt theory predicts, when the brackets are placed over the arrow as in figure 3.4b, we will mentally construct the endpoints of the arrows, represented by the broken lines, thus perceiving that the arrow (or event) projects beyond the reference frame.

**Distance** refers to whether the event frame interval(s) is/are ‘discerned’ by the reference frame. If an interval is ‘discerned’ within the reference frame, then another event may be portrayed as occurring within that interval. The perfective aspect has a distant reference frame,
while the imperfective has a near reference frame. The practical effect of this difference in distance is that an event interval is discerned by the imperfective and thus can serve as the frame for another event, whereas the perfective cannot function in this way. This is illustrated by example [3.1], repeated from example [1.7].

[3.1] While Rob \textit{*read} (= PFV)/ \textit{was reading} (= IPFV) his book, Rachel walked in.

The perfective and imperfective aspects may be denoted formally in terms of set symbols, as in [3.2]: perfective is defined as \(RF \supset EF\), i.e., \(RF\) includes an interval of \(EF\); imperfective is defined as \(RF \subset EF\), i.e., \(RF\) is included in an interval of \(EF\). The whole scope and far distance are associated with the perfective \(RF \supset EF\), while the partial scope and near distance are associated with the imperfective \(RF \subset EF\). The notation (nucleus) in the examples refers to the fact that the perfective and imperfective aspects have a default focus on the nucleus of an event (as opposed to the onset or coda; cf. perfect, 3.1.3.3); this default focus may be altered by phasal aspects (see 3.1.4).

[3.2] a. Rob \textit{walked} (=PFV). \(RF \supset EF\text{(nucleus)}\)
   b. Rob \textit{was walking} (=IPFV). \(RF \subset EF\text{(nucleus)}\)

3.1.3.2 \textit{Viewpoint Aspect, Situation Aspect, and (Un)boundedness}

The application of perfective and imperfective viewpoints to the situation types discussed above (3.1.2) may be formalized as in [3.3] (\(^\times\) denotes multiple occurrences).\(^7\)

[3.3] a. STATES
   Paul \textit{fut malade} (PFV). \(RF \supset EF\text{(nucleus)}\text{(durative)}\)
   Paul \textit{était malade} (IPFV). \(RF \subset EF\text{(nucleus)}\text{(durative)}\)

\(^7\)A French example is used for states [3.3a], since the French Imparfait is marked for IPFV. In contrast, English uses progressive aspect, which does not usually apply to stative predicates. In the other examples, English Simple Past (past tense) and Past Progressive (progressive aspect) contrast in the same way as perfective and imperfective aspect; therefore they are marked \(= PFV\) and \(= IPFV\), respectively (see chap. 1, n.14).
b. **ACTIVITIES**

Evan walked (**PFV**). RF \(\triangleright\) EF(nucleus\text{\textsubscript{\text{dynamic, durative}}}, \text{\textsubscript{\text{arb}}})

Evan was walking (**IPFV**). RF \(\subset\) EF(nucleus\text{\textsubscript{\text{dynamic, durative}}}, \text{\textsubscript{\text{arb}}})

c. **ACCOMPLISHMENTS**

Colin built (**PFV**) a lego house. RF \(\triangleright\) EF(nucleus\text{\textsubscript{\text{dynamic, durative, telic}}}, \text{\textsubscript{\text{naut}}})

Colin was building (**IPFV**) a lego house. RF \(\subset\) EF(nucleus\text{\textsubscript{\text{dynamic, durative, telic}}}, \text{\textsubscript{\text{naut}}})

d. **ACHIEVEMENTS**

Jared won (**PFV**) the race. RF \(\triangleright\) EF(onset-coda\text{\textsubscript{\text{dynamic, telic}}})

Jared was winning (**IPFV**) the race. RF \(\subset\) EF(onset\text{\textsubscript{\text{dynamic, durative}}})

e. **SEMELFACTIVES**

Tage knocked (**PFV**) on the door. RF \(\triangleright\) EF(nucleus\text{\textsubscript{\text{dynamic}}}, \text{\textsubscript{\text{arb}}}, I_1 = m_1)

Tage was knocking (**IPFV**) on the door. RF \(\subset\) EF(\text{\texttimes} nucleus\text{\textsubscript{\text{dynamic}}}, \text{\textsubscript{\text{arb}}}, I_1 = m_1)

The central issue involved in the interaction of viewpoint and situation aspects is *(un)boundedness*, which relates to, but does not fully coincide with, (a)telicity (situation aspect) and (im)perfectivity (viewpoint aspect) (see Depraetere 1995). Ilse Depraetere defines (un)boundedness as having to do with whether a situation has reached a temporal boundary, in contrast to (a) telicity, which has to do with whether a situation has an inherent or intended endpoint (1995:2–3). (Un)boundedness relates most directly to the subinterval property, as mentioned above (3.1.2.2): unbounded situations have the subinterval property, whereas bounded situations do not (see Smith 1999:486–88).

A certain similarity may be seen between unboundedness and imperfective aspect, on the one hand, and boundedness and perfective aspect, on the other. However, this initial connection is inexact since the situation type and temporal adverbials may also contribute to determining (un)boundedness. For instance, states are not “bounded” in the same way accomplishments and achievements are bounded. This is demonstrated by the different entailments accomplishments and achievements, on the one hand, and states, on the other, have with perfective aspect and the adverb *yesterday* in [3.4a–b] (see Hatav 1989:495; 1997:47).
The entailments in [3.4a–b] show that the accomplishment and achievement are bounded; by contrast, the state is not bounded in [3.4c], but is understood as possibly extending beyond the adverbial boundary yesterday. These different entailments may be explained by bringing together the results of the preceding discussions of perfective aspect (see fig. 3.4a) and (a)telicity (see 3.1.2.2): since perfective aspect includes an entire interval of the event within its scope, and by definition the interval of accomplishments and achievements include an inherent endpoint [+telic], that endpoint must included in the scope of the perfective, making the situation bounded; by contrast, because states have no inherent endpoint, boundedness is not forced by the perfective aspect or the adverb yesterday in example [3.4b].

By contrast, activities fall somewhere between states and accomplishments (and achievements). Activities with perfective aspect and a durational adverbial phrase are bounded and thus do not have the subinterval property (e.g., Kathy worked for two hours is not true of any subinterval of the two hour interval). When, however, perfective aspect is applied to activities without any adverbial modification, there is an “implicit temporal bound” (Smith 1999:488). This implicit temporal bound may be illustrated by contrasting the examples in [3.5]: example [3.5a] illustrates that states with perfective viewpoint (and adverbial modification) are compatible with statements of continuation (i.e., and still knows the answer); by contrast, a similar statement of continuation with the perfective activity in [3.5b] seems odd, although, as shown in [3.5c], the statement is compatible with a statement of resumption, which asserts a new interval of the activity (see Smith 1999:487–88).
In both cases—states and activities with perfective viewpoint—the issue revolves around implicature: states are allowed (though not required) to extend beyond the perfective reference frame, and the default interpretation implies that extension, although that implicature may be canceled (Hatav 1989:495); activities are also allowed (though not required) to extend beyond the perfective reference frame, but their default interpretation is that they are included in their reference frame, although again, that implicature may be canceled (Smith 1999:488). These conclusions are illustrated by the examples in [3.6].

By themselves (the underlined text only) the state in [3.6a] is interpreted as extending beyond the perfective RF, and the activity in [3.6b] as included in the perfective reference frame. The implicatures may be either reinforced by the context (first clause option), or canceled (second clause option).

Thus, in summary, perfective aspect makes accomplishments and achievements bounded, without the need of adverbial modification, because the inherent endpoint of these situation types is always included in the scope of the perfective viewpoint. Perfective aspect with activities has an implicit temporal bound, whereby the default interpretation is that the activity is bounded, but that implicature interpretation may be either reinforced or canceled by the context. Finally, perfective aspects with states are not bounded and are by default interpreted as extending beyond the perfective scope; however, as with activities, this default interpretation is due to implicature,
and may be either reinforced or canceled by the context.

By contrast, imperfective aspect makes all situation types unbounded, and thus imperfective situations always have the subinterval property and are incompatible with adverbial statements that assert endpoints, as shown in [3.7] (repeated from [1.24]).

[3.7]  
| a.  | Colin danced three times. |
| b.  | **Colin was dancing three times.** |

Importantly, based on the privative analysis of [+telic], imperfective aspect does not make achievements and accomplishments atelic, only unbounded, resulting in the reading that the inherent endpoint has not been reached (see 3.1.2.2). As mentioned above (3.1.2.3), this unbounded (durative) interpretation of achievements affects the onset of the situation, since achievements have no nucleus (see [3.3d]). Finally, when applied to semelfactives, which are momentary situations, imperfective aspect again forces unboundedness, interpreted most naturally as an iterative situation (see 3.1.2.3).

3.1.3.3 The Perfect and Progressive

*Perfect* (also called anterior) is treated here as a viewpoint aspect, although it is unique among the other viewpoint aspects (Comrie 1976:52). While the perfect interacts with all three tenses (e.g., *had run, has run, will have run*), it is remarkable in that it may also have other viewpoint aspectral distinctions (e.g., *has been sleeping*). The ability of the perfect aspect to combine with the progressive is due to the fact that the scope and distance of the perfect reference frame relate not to the nucleus of the event frame, but to the coda (so Johnson and Klein; see fig. 1.6 and table 1.12c). Hence, the perfect focuses on the resultant phase of a prior event nucleus, as illustrated in [3.8]: the event of working is prior to the reference frame in which Kathy *has worked/been*
working. The reference frames of the non-progressive perfect and progressive perfect contrast with respect to the event frame coda in the same way as the perfective and imperfective reference frames relate to the event frame nucleus (i.e., in terms of scope and distance), as illustrated by the analysis in [3.8] (see [3.2]).

[3.8]  
  a. Kathy has worked all day \( (\text{PERF}) \). \( \text{RF} \supset \text{EF(coda)} \)  
  b. Kathy has been working all day \( (\text{PERF-PROG}) \). \( \text{RF} \subset \text{EF(coda)} \)

The strength of this analysis is that it captures the current relevance notion of the perfect (Binnick 1991:264), but at the same time avoids the problems of an analysis that interprets the event nucleus as extending into the reference frame (so Hatav 1993:220; see Klein 1994:104 and table 1.12). The perfect focuses on the resultant (or implicated) state of a past event. The resultant state is sometimes semantically connected to the perfect verb (e.g., \( \text{He has died} \) [event] \( \rightarrow \text{He is dead} \) [state]); oftentimes, however, the resultant event must be determined by real world knowledge (e.g., \( \text{We can’t come to your party. The police have arrested my wife} \) [event]; thus, \( \text{My wife is indisposed.} \) [state]) (see Moens 1987:71–72).

Finally, it was noted in chapter one that progressive is also categorized as a viewpoint aspect (1.3.1). Like the perfect, there is no unanimity with respect to how the progressive should be analyzed. The progressive has been treated as a tensed form, an aspectual form, and a discourse-pragmatic form (see Binnick 1991:281–90). Aspectually the progressive is apparently identical with the imperfective (see chap. 1, n.13). Nevertheless, there are cross-linguistic features that differentiate the two verb forms. First, progressives are often formed periphrastically, and/or based on a nominal form (Bybee, Perkins, and Pagliuca 1994:130; Dahl 1985:91). Second, progressives are more restricted than imperfectives: they generally cannot occur with stative predicates; and they generally have a narrower future time use, either expressing an “expected”
This characteristic has been pointed out as true of perfect aspect as well (3.1.3). Third, the perfective : imperfective opposition is often correlated with the tensed past : non-past opposition, whereas the progressive is freely used for past, present, and future time reference (Dahl 1985:92–93). Hence, while we cannot distinguish imperfective and progressive with the event model, they can be differentiated based on consistent cross-linguistic characteristics.

3.1.4 Phasal Aspect and the Event Model

In chapter one, phasal aspect was presented as a third, indeterminate type of aspect (1.3.3). Various views were listed there that advocated recategorizing phasal aspect under viewpoint or situation aspect or understanding phasal aspect as the result of the interaction between viewpoint and situation aspect. The most persuasive argument in this regard is that iterative (phasal) aspect should be analyzed as the resultant sense of the imperfective view applied to a semelfactive situation (e.g., Jared was knocking). However, this type of explanation is ineffective for most other phasal aspects (see [1.9] for a taxonomy). The strongest argument for the independence of a phasal aspect category is that phasal aspect types are not usually mutually exclusive of situation or viewpoint aspects. For instance, the verbs which express phasal aspect in English can be analyzed with respect to situation aspect (e.g., begin is an activity) and both perfective and imperfective viewpoint aspects may be applied to them (e.g., began or was beginning).

Thus, it is proposed here that phasal aspect is indeed a discrete category of aspect. The defining feature of phasal aspect is that it makes one particular ‘phase’ of a situation into an

---

8This characteristic has been pointed out as true of perfect aspect as well (3.1.3). This and the fact that the perfect focuses on the coda of a situation characterizes the elusive perfect aspect as having characteristics of both viewpoint and phasal aspect.
activity subevent. For instance, inceptive type phasal aspects (e.g., begin, start, going to, about to) make the onset or the transition from onset to nucleus into an activity subevent of the larger situation: the auxiliary verb is the predication of the subevent while the main verb is the predication of the main situation. Such an explanation applies as well to completive types (e.g., complete, finish, stop, end), which make an activity subevent out of the nucleus-coda transition.

Continuative and resumptive aspectual types create an activity subevent out of an interval of the nucleus of the main situation: i.e., the subevent is the continuation or resumption of the main situation. The distinction between continuation and resumption is that the latter assumes a pause in the main situation as part of the subevent. Finally, habitual phasal aspect treats the entire situation as an activity subevent of a series of situations which occur in a regular pattern. The examples in [3.9–11], each with a formal analysis, illustrate these phasal types.

<table>
<thead>
<tr>
<th>[3.9] Onset Phasal Aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Rachel was going to go (=IPFV) to sleep. RF ⊑ EF(onset) &gt; subevent</td>
</tr>
<tr>
<td>b. Rob began writing (=PFV). RF ⊑ EF(onset-nucleus) &gt; subevent</td>
</tr>
<tr>
<td>c. Rob was beginning to write (=IPFV). RF ⊑ EF(onset-nucleus) &gt; subevent</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>[3.10] Coda Phasal Aspect</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Jared finished studying (=PFV). RF ⊑ EF(nucleus-coda) &gt; subevent</td>
</tr>
<tr>
<td>b. Jared was finishing studying (=IPFV). RF ⊑ EF(nucleus-coda) &gt; subevent</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>[3.11] Nucleus Phasal Aspect</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Colin usually finished (=PFV) his homework. RF ⊑ EF &gt; × subevent</td>
</tr>
<tr>
<td>b. Colin was usually finishing (=IPFV) his homework. RF ⊑ EF &gt; × subevent</td>
</tr>
<tr>
<td>c. Tage continued to play (=PFV). RF ⊑ EF(nucleus) &gt; subevent</td>
</tr>
<tr>
<td>d. Tage was continuing to play (=IPFV). RF ⊑ EF(nucleus) &gt; subevent</td>
</tr>
<tr>
<td>e. Evan resumed crawling (=PFV). RF ⊑ EF(nucleus) &gt; [pause]subevent</td>
</tr>
<tr>
<td>f. Evan was resuming crawling (=IPFV). RF ⊑ EF(nucleus) &gt; [pause]subevent</td>
</tr>
</tbody>
</table>

This analysis intentionally excludes iteratives, which have been analyzed as the resultant semantic structure of an imperfective viewpoint applied to a semelfactive situation (above this section). Iterative is then (at least in English) a derivative situation type, and not properly classified as a phasal aspect. This exclusion also provides an explanation for the distinction
between iterative and habitual: an iterative event is always the result of imperfective plus semelfactive; an habitual phasal aspect converts any sort of situation type (except perhaps some accomplishments: **Bill used to build/always built a house**) into an activity subevent occurring in at regular intervals.

### 3.1.5 Tense and the Event Model

The reference time has been redefined as a reference frame (RF) consisting of an interval of time, whose scope and distance with respect to the event frame (EF) defines viewpoint aspect. However, the extent of the reference frame (i.e., the number of reference frames) and the relationship between the event frame and the speech time (S) need to be addressed with respect to how these issues impact a theory of tense.

Dahl has criticized Klein’s tense-aspect theory for ignoring the relationship between E and S (1.4.2)—a criticism that applies to similar theories also (e.g., Olsen, 1.4.3). Dahl claims that the E-S relationship is determinative of tense in examples such as [3.12] (repeated from [1.10]).

\[
\begin{align*}
\text{[3.12a]} & \quad \text{Today, my office hours are from ten to twelve.} \\
& \quad [\text{RF(}\text{today})], S] \odot [S \leq \text{EF(}ten \text{ to twelve})] \land \text{RF} \supset \text{EF(nucleus}}_{\text{durative}}
\end{align*}
\]

\[
\begin{align*}
\text{[3.12b]} & \quad \text{Today, my office hours were from ten to twelve.} \\
& \quad [\text{RF(}\text{today})], S] \odot [\text{EF(}ten \text{ to twelve}) < S] \land \text{RF} \supset \text{EF(nucleus}}_{\text{durative}}
\end{align*}
\]

To meet Dahl’s objection, tense must be defined as composed of (\(\odot\)) two relationships: an RF-S and an EF-S relationship. The RF-S relationship directly determines tense, but the EF-S relationship may affect tense because it represents the ontological relationship between the event and the speech time (see Johnson’s model, fig. 1.4). Thus, while the RF-S relationship is identical in [3.12a] and [3.12b], the two examples have different EF-S relationships that affect
the tense interpretation; the RF-EF separately defines aspect, as discussed above in 3.1.2.1.

The relative tense theories also raised the question of the extent of the reference time: are there multiple reference times, or one movable reference time? The theory developed here follows the view now espoused by many linguists that the reference time is a single, movable entity that is transferred from predicate to predicate in discourse (see 1.6.2). Olsen’s label “deictic center” is an accurate description of the role of the RF in tense (1997:117; see 1.4.3). Following Prior (1967) and other linguists (e.g., Partee 1984), this theory also espouses the view that the speech time is simply the first (and default) position of the reference time (Partee 1984:255 labels the speech time $R_0$). The movement of the reference time in discourse, however, involves various parameters, including situation and viewpoint aspect, tense, and adverbials; thus further discussion is reserved for chapter four (4.2.2.1).

The necessity of a discourse approach to reference time is evident when one tries to analyze the conditional tense forms. Reichenbach (1.2.2) eschewed an analysis of the conditional forms. Subsequent relative tense theories analyzed the forms as $R < E < S$ (conditional) and $R_2 < E < R_1 < S$ (conditional perfect) (see table 1.7). The etymology of would (see Bybee, Perkins, and Pagliuca 1994:269) and the fact that it may be combined with the progressive aspect (would be going), demonstrate that the conditional is a tense construction (though the distinction between conditional and conditional perfect is aspectual). The crucial characteristic of the conditionals is that the event portrayed by the conditional form is always located after a reference time that is designated by the context (e.g., another predication or an adverb). Thus, the conditional forms must be analyzed in terms of the transient reference time (i.e., RF), as in [3.13].


$RF_{pos1} < EF < RF_S \& RF_{pos1} \geq EF(nucleus_{dynamic,durative})$
b. Conditional Perfect: Kathy thought that the boys would have walked there.
\[ RF_{pos1} < EF < RF_S \leq RF_{pos1} \geq EF(\text{coda}) \]

In the examples the RF moves, based on the predication Kathy thought, from the default speech time \((RF_S)\), to position one \((RF_{pos1})\), whose scope and distance relationship with EF determines viewpoint aspect.

### 3.1.6 Modality

Modality cannot be analyzed with the event model nor in terms of the temporal ordering of EF, RF, and S (or \(RF_S\)). Instead, epistemic (judgments), deontic, and contingent (= oblique) modality may all be analyzed in terms of possible worlds,9 according to Chung and Timberlake’s (1985) definition given in chapter one (1.7).10 Less confusing than the phrase possible worlds, however, is the term alternative futures (although in some cases of contingent modality the alternative “futures” can be in the past). The idea of alternative futures lies in the concept of branching time, illustrated by figure 3.5: from the present, time branches into an infinite number of alternative futures, any one of which may end up to be the actual future.

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9The concept of possible worlds derives from model-theoretical semantics. McCawley uses the label “nonanomalous state of affairs” (1993:373). Issues which have arisen with respect to the concept, such as the relevancy or accessibility of worlds, and the problem of cross-world identity, are not dealt with here since they do not impinge on the use of the concept here (see McCawley 1993:415–57).

10Although Chung and Timberlake’s definition is admittedly narrow, it serves well to define the types of modality found in the BHVS (i.e., deontic, epistemic judgments, and contingent or oblique). Chung and Timberlake’s definition is least applicable to the the broad and varied category of evidentials, which they distinguish from epistemic, treating them under the separate heading of “epistemological” modality (1985:244–46). Jan Nuyts also argues that evidentiary modality should be treated separately from epistemic (2001:27).
The distinction between alternative futures and the actual future is important because it establishes the argument that future expressions are indicative tense and not simply modal (see 1.7.3): statements about alternative futures are modal, whereas statements about the actual future are non-modal. The distinction is demonstrated, as James McCawley observed, by the fact that future statements can be judged as true or false based on their resemblance with the actual future (1993:432–34). This is illustrated by [3.14], in which Rachel’s statement refers to the actual future, not just a alternative future, because her statement can be judged as wrong in light of the actual future to which she referred.

[3.14] She said on Monday that they would contact the candidates by Friday, but she was wrong.

Thus, statements about the actual future are (future tense) indicative; statements about alternative futures are modal.

Three types of modality were introduced in chapter one (1.7): epistemic, deontic, and contingent (i.e., oblique) modality. All three types of modality may be analyzed in terms of the two (epistemic) modal operators—it is necessary (□), and it is possible (◇). Epistemic modality consists of the bare concepts of necessity and possibility: either an event is true in all alternative futures (i.e., necessarily true), or it is true in some alternative future (i.e., possibly true). Deontic modality consists of the two central notions of obligation and permission, which function analogically to the operators □ and ◇, respectively, in the moral or legal realm: if a proposition is made obligatory (O), then it is morally or legally true (i.e., valid) in all alternative futures (i.e.,
it is necessarily valid); if a proposition is made permissible (P), then it is morally or legally true in some alternative future (i.e., it is possibly valid). Finally, contingent modality consists of a protasis-apodosis, or implicated relationship (¬). The apodosis is generally interpreted as necessarily true if and only if the protasis is true, although the epistemic evaluation may be weakened (see 1.7.2.3; Chung and Timberlake 1985:250). Thus, contingent modality may be formalized in terms of a combination of an implicated relationship (¬) and an epistemic evaluation (□, ◦). The taxonomy in [3.15–17] lists the major modalities with examples of how they may be represented with respect to the epistemic modal operators.

[3.15] Epistemic modality
   a. Necessity: The boys will certainly be asleep by then. □(boys, asleep)
   b. Possibility: The boys may be asleep by then. ◦(boys, asleep)

[3.16] Deontic modality
   a. Obligation: You must clean your room. O(you, clean)
   b. Permission: Then you may play with your friends. P(you, play)

[3.17] Contingent modality
   a. Conditional: If I drop you off I will pick you up later. (I, drop off) ¬ □ (I, pick up)
   b. Temporal: When Mom arrives we will eat. (Mom, arrive) □ ¬ (we, eat)
   c. Causal: Because Jared was hungry he ate. (Jared, be hungry) □ ¬ (he, ate)
   d. Purpose: Colin practiced every day so he might improve. (Colin, practice) □ ¬ (he, improve)
   e. Result: Tage is curious so that he gets into a lot. (Tage, be curious) □ ¬ (he, gets into)

3.1.7 Summary

This section has provided a theoretical foundation for the analysis of the BHVS in the remainder of the chapter by examining the key issues with respect to universal TAM values. In particular, this section has proposed an event model with which the aspectral values of events may be evaluated: the structure of the event frame determines the situation aspect; the relationship of the reference frame with the event frame in terms of scope and distance determines viewpoint aspect; and phasal aspect alters the event model to create an activity subevent. The
precedence relationship of both the event frame and reference frame to the speech time determines tense. Finally, three types of modality—epistemic, deontic, and contingent—were analyzed in terms of the two modal operators, necessity and possibility.

Within these discussions, solutions to several problematic issues were proposed. The event model demonstrated the distinction between perfective aspect and perfect aspect in terms of where the reference frame was focused—on the nucleus (perfective) or the coda (perfect). The aspectually relevant and interrelated issues of subinterval property, (a)telicity, and (un)boundedness were also clarified. Phasal aspect was determined to comprise a discrete aspectual category, in which a phase of the event structure is converted into an activity subevent of the main situation. The strengths of both tense and tense-aspect theories were combined in the tense model here: the scope and distance of the reference frame with respect to the event frame define viewpoint aspect; at the same time, the reference frame forms a transient reference time whose temporal precedence relationship with the event frame contributes to defining tense, along with the temporal relationship between the speech-act time and the event frame. Finally, future tense was argued to be non-modal because it refers to an actual future and, future predictions can be evaluated as true or false with respect to that actual future.

3.2 A Grammaticalization Approach

The term grammaticalization, coined by Antonie Meillet (French grammaticalisation), has come to be used in two distinct ways—in reference to grammaticalization phenomena and in reference to grammaticalization theory (so Campbell and Janda 2001:94). In the former sense, the term refers to changes that result in increased grammaticality of items—either lexical >
grammatical, or grammatical > more grammatical (Campbell and Janda 2001:95). The “cline of grammaticality” offered by Hopper and Traugott in [3.18] ranks the sorts of stages items might go through on the way to becoming grammatical or more grammatical (1993:7).

[3.18] LEXICAL ITEM > GRAMMATICAL WORD > CLITIC > INFECTIONAL AFFIX

Table 3.2 gives a categorized listing of the wide range of linguistic effects grammaticalization may have on items.

<table>
<thead>
<tr>
<th>Table 3.2. Linguistic effects of grammaticalization (adapted from Heine, Claudi, and Hünnefelder 1991:213)</th>
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<tbody>
<tr>
<td>Semantic</td>
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<td>Pragmatic</td>
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<tr>
<td>Phonological</td>
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The more recent use of the term is in reference to grammaticalization theory, consisting of various claims made about grammaticalization phenomena, such as the principle unidirectionality (Campbell and Janda 2001:94; see Hopper 1991 and Bybee, Perkins, and Pagliuca 1994:9–22 for other “principles” of grammaticalization). Grammaticalization theory has been deservedly criticized recently. None of the principles of grammaticalization is sufficient or necessary to categorize a particular phenomenon as grammaticalization (Campbell 2001:157). Rather, these principles outline statistically common tendencies in instances of grammaticalization, or characteristics of prototypical cases of grammaticalization. Because grammaticalization relies on processes and mechanisms that are independent of it, Lyle Campbell characterizes grammaticalization as “derivative,” having no independent status (2001:113). However, Campbell claims that grammaticalization theory nevertheless has a “heuristic” value in that it has
informed typological studies concerning various cross-linguistic phenomena and universal tendencies in language change (2001:158).

It is with this heuristic value in mind that the present study embraces a grammaticalization approach to the BHVS. In particular, several principles of language change observed in studies of grammaticalization account for form and meaning asymmetries that a post-Saussurean approach to grammar description has difficulty treating (see 3.2.2 below). More generally, studying language from the perspective of grammaticalization offers other advantages over post-Saussurean grammatical description—most notably by resolving the issue of synchronic versus diachronic language description (see 3.2.1 below). The following discussion demonstrates how a grammaticalization approach resolves these two issues, which are relevant to constructing a semantic model of the BHVS.

3.2.1 Synchrony, Diachrony, and Panchrony

Ferdinand de Saussure (1857–1913) is regarded as the “father” of modern linguistics. Among the features of modern linguistics that Saussure introduced in his post-humously published lectures, *Cours de linguistique générale* (1915), is the distinction between synchrony and diachrony. *Synchronic* linguistics examines a particular language-state, while *diachronic* linguistics examines the temporal succession between language-states. Saussure claimed that grammatical investigation along both axes is important; however, it is imperative that the two types of study and their results be strictly distinguished (1966:80–81). Diachronic studies in the form of historical linguistics dominated nineteenth-century comparative language study, while synchronic analysis is characteristic of most modern (post-Saussurean) grammatical description.
In BH (and Semitic) studies, this general shift from the primacy of a diachronic approach to a synchronic one is also evident from a comparison of the discussions about the earliest Semitic verb form, at the close of the nineteenth century (2.3.1), and studies from the last forty years, some of which intentionally eschew the earlier diachronic approach (e.g., Michel 1960; Zevit 1988; Gropp 1991). Nevertheless, debate over synchrony versus diachrony continues within biblical studies (e.g., de Moor 1995). With respect to the verbal system in particular, the tension between these approaches stems from the fact that while a key tenet of post-Saussurean grammatical description is that “linguistic description must be strictly synchronic” (Heine, Claudi, and Hünnemeyer 1991:1), the most fundamental and crucial advance in our understanding of the BHVS derives from diachronic analyses, namely, the observation that *yiqtol and *(way)yiqtol are homonymous forms with different historical origins (i.e., *yaqtulu and *yaqtul, respectively) (2.3.1).

In general, attempts to describe the BHVS within a strictly synchronic framework have not been successful. In those instances where the diachronic evidence was ignored on principle, scholars have retreated to psychological and quasi-aspectual categories to describe the BHVS (e.g., Michel 1960; Kustár 1972). In other cases, studies that have claimed to be synchronic have been unable to avoid incorporating the diachronic data, thus negating the claim of a strictly synchronic description (e.g., Zevit 1988; Gropp 1991).

In the case of the BHVS, at least, it appears unwise to completely eschew the diachronic data in favor of a strictly synchronic description. In addition, the strict dichotomy between synchrony and diachrony introduced by Saussure is problematic because it is predicated on the assumption that each language-state is “essentially stable and homogeneous” (Hopper and Traugott 1993:2).
However, studies in language variation have discovered linguistic variance not only along the
diachronic axis but also along the synchronic one (e.g., Biber 1995; Biber and Conrad 2001).

These observations of variation along the synchronic axis coupled with a grammaticalization
view of language as irreversibly moving towards more grammatical structure,\(^1\) favor a more
developmental approach to grammar description (see the discussion of Hopper’s “emergent
grammar” approach in Campbell 2001:154–57). At the same time, the importance of
understanding language as “a system whose parts can and must all be considered in their
synchronic solidarity” cannot be disregarded (Saussure 1966:87).

The relevance of both the diachronic and synchronic dimension in grammaticalization
phenomena has led some linguists to appropriate Saussure’s term *panchronic* (1966:95) to refer
to an approach that eschews a strict dichotomy between synchrony and diachrony as “both
unjustified and impractical”; instead, the linguist should draw “on any piece of information that
might illuminate the nature of language structure” (Heine, Claudi, and Hünnemeyer 1991:258).

Saussure’s own chess-game analogy illustrates the relationship between synchrony, diachrony,
and panchrony: the configuration of the chess-men on the board at any given moment provides
a synchronic view; the movement of individual pieces is the diachronic dimension. According
to Saussure, “each move is absolutely distinct from the preceding and the subsequent equilibrium”
(1966:89). However, if grammaticalization is understood as a matter of problem solving (so
Heine, Claudi, and Hünnemeyer 1991:29), then an additional element must be added to
Saussure’s metaphor—that of strategy. Strategy is the element that connects the synchronic and

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\(^1\)Juan C. Moreno Cabrera makes the case that *irreversibility* is more accurate than *unidirectional* as a
diachronic axes in a single panchronic viewpoint, because each state is the result of (a) previous
diachronic change(s) and in turn determines subsequent changes, just as the configuration of the
men on the chess board determines the subsequent move according to the players’ strategies.

A panchronic approach to the BHVS allows for both diachronic and synchronic data to be
taken into account. In other words, the panchronic investigation of the BHVS that follows will
be interested in the inherently diachronic grammaticalization phenomena that have shaped the
verbal system as well as the dynamic configuration of forms within the system.

3.2.2 A Grammaticalization Approach to Form-Meaning Asymmetries

Alongside the post-Saussurean primacy of synchronic description is the tenet that form and
meaning are symmetrical; in other words, each form has one basic meaning and each meaning is
ideally fulfilled by a single form (Heine, Claudi, and Hünnefeld 1991:1). Dwight Bolinger’s
statement is illustrative of this tenet: “the natural condition of language is to preserve one form
for one meaning, and one meaning for one form” (1977:x). Indicative of an adherence to this
principle are the questions leveled at models of the BHVS that allow for duplication of meanings
among forms (e.g., Zevit 1988:30).

An examination of Present Day English provides a wealth of examples demonstrating that
languages allow for a greater degree of semantic overlap than is recognized in post-Saussurean
linguistic tradition. For instance, Hopper and Traugott present the example of *be going to*, which
is used both as a main verb expressing direction and as a future auxiliary in Present Day English.
As illustrated by the examples in [3.19], the difference between these meanings of *be going to* is
manifest in the fact that when used as a future auxiliary the syntagm may be replaced by the
phonologically reduced form *gonna*.

[3.19]  

a. Rob *is going to*/*gonna* New York next week. (main verb expressing direction)
b. Rob *is going to*/*gonna* fly to New York next week. (auxiliary verb expressing future tense)

The examples in [3.19] of *be going to* demonstrates that multiple meanings may exist for a single form. Likewise, the variety of means for expressing future in Present Day English given in [3.20] illustrate that a single meaning may be expressed by multiple forms.

[3.20]  
a. He *will fly* . . .
b. . . flies . . .
c. . . will be flying . . .
d. . . is flying . . . to New York tomorrow.

While these forms are grammatically distinct (i.e., Future tense vs. Present tense; Progressive aspect vs. Non-progressive aspect), they all express the same propositional content and enough semantic overlap exists between them to refute the notion that meaning between forms is always oppositional (see Heine, Claudi, and Hünnemeyer 1991:30). At the same time, a clear discourse-pragmatic distinction among them is not always discernable (i.e., often there is no clear reason for a speaker to use one construction in a given context as opposed to another).

The form-meaning asymmetries illustrated by the examples from Present Day English above ([3.19–20]) are explained by the *layering* effect of grammaticalization: “Within a broad functional domain, new layers are continually emerging. As this happens, the older layers are not necessarily discarded, but may remain to coexist with and interact with newer layers” (Hopper 1991:22; Hopper and Traugott 1993:124). An example of the layering effect is seen in the development of future expressions in Latinate languages, as illustrated with *cantare* ‘to sing’ in figure 3.6. At each stage a periphrastic future expression arose and existed for a time alongside an earlier developed future form. In Latin we the later form eventually replaced the earlier one.
The principle of layers can be made more general by restating it in terms of grammaticalization being a cyclical process: languages are constantly developing new forms or new meanings for existing forms (Heine, Claudi, and Hünnemeyer 1991:246). Thus, the layering effect is manifest not only in multiple forms within the same semantic domain, but also in multiple meanings expressed by a single form. This latter type of layering is commonly referred to as the principle of persistence of meaning: “When a form undergoes grammaticalization from a lexical to a grammatical function, so long as it is grammatically viable some traces of its original lexical meanings tend to adhere to it, and details of its lexical history may be reflected in constraints on its grammatical distribution” (Hopper 1991:22). Persistence of meaning is seen in the development of English auxiliaries from inflected verbs (e.g., will intentionality > future tense), a process which is ongoing (e.g., “quasi-modals” such as need to and ought to) (see Hopper and Traugott 1993:45–48). In each case the older (lexical) meaning may adhere for a time in the form alongside the newer developing meaning. A particularly clear example is the development of English would, shown in figure 3.7.
auxiliary uses of *wolde* alongside its past inflected meaning (from Hopper and Traugott 1993:37).

[3.21] þa Darius geseah þæt he overwunnen beon *wolde*, þa *wolde* he hiene selfe on þæm gefeohte forspillan.

battle kill:INF

“When Darius saw that he would be overcome, he wanted to commit suicide in that battle.”

Importantly, the cyclical grammaticalization phenomenon is not haphazard. While grammaticalization theory cannot predict exactly how a form will develop or under what circumstances, grammaticalization studies have shown that items develop along *universal paths* within broad semantic domains (Bybee, Perkins, and Pagliuca 1994:14–15). At the theoretical level, Heine, Claudi, and Hünnemeyer have proposed that grammaticalization moves along a cline like the one in [3.22], from more concrete to more abstract (1991:48).

[3.22] PERSON > OBJECT > ACTIVITY > SPACE > TIME > QUALITY

Empirically, Bybee, Perkins, and Pagliuca have traced universal paths of development within each of the major TAM domains. For example, one of the sources of future expressions is agent-oriented modalities. These modal constructions develop into future expressions along the universal path shown in figure 3.8 (repeated from figure 1.14).

**Figure 3.8.** Paths of development of agent-oriented modalities into futures (based on Bybee, Perkins, and Pagliuca 1994:256, 263, 266).

ability root possibility

obligation intention future

desire willingness

A distinct advantage of a grammaticalization approach that examines languages in terms of universal development paths is that comparison between genetically and temporally diverse languages is greatly facilitated. Bybee, Perkins, and Pagliuca observe “that the similarities among languages are more easily seen from a diachronic perspective” (1994:4). Thus, the semantic
analysis of the BHVS presented below rests not only upon an inductive study of the BH data, but also upon an examination of the development of the BHVS with respect to the universal paths of development of TAM forms that Bybee, Perkins, and Pagliuca have deduced from their data (see 1.5.2). This approach enables us to move beyond the impasse of competing models of the BHVS that lack any objective means to verify their claims; the model of the BHVS constructed below is validated by comparison with the development of other verbal systems along the same universal pathways.

3.2.3 Grammaticalization and Basic Meaning

Abandoning the post-Saussurean symmetrical view of form and meaning and adopting a grammaticalization approach to language description raises the question of how to talk about meaning. In other words, is there such a thing as “basic” meaning, and if so, how can it be discerned, and how can the various focal meanings of each form be differentiated and interrelated meaningfully?

A few scholars working on BHVS have recognized multiple focal meanings for verb forms and have attempted to rank them by distinguishing between a “primary” or “general” meaning and “secondary,” or “contextual” meanings in their theories (e.g., Kuryłowicz 1972, 1973; Cohen 1924; Gropp 1991; see 2.4.2, 2.5.1, 2.7.2.1). This approach moves in the right direction, but may be further refined with respect to the grammaticalization approach taken here.

First, we may distinguish, between a primary focus, persistent meanings, and secondary foci. The primary focus corresponds with the furthest point of development along the relevant grammaticalization path. Older meanings that still exist for the form are explained as persistent
meanings. For example, the English Conditional construction with *would* (see [3.21] above) has as its primary focal meaning future in the past tense; but it may also express intention, a meaning that persists from earlier stages in its development.

The term *secondary foci* is reserved for meanings that derive from context-induced reinterpretations (see Heine, Claudi, and Hünne Meyer 1991:71–72, and 3.3.3.3 below), whereby a new meaning that is independent of the primary meaning arises for a form within a specific context. Thus, these meanings are defined by a set of properties not present in the primary focal meaning (Dahl 1985:11). For example, the Past Perfect in English is characterized by the criteria of perfect aspect and past time reference, but its use in counterfactual modal expressions (e.g., *Had he known . . .*) or cases of tense shifting (e.g., *He thought that he had won*) appear to lack the criteria that characterize the prototypical extension.

Second, alongside the concepts of primary, persistent, and secondary meanings, we need to examine the methodology for determining meaning. Dahl discusses the extensional and intensional approaches to meaning (1985:9–10). In some cases these approaches lead to different results. For instance, the English Future, defined extensionally, involves both future time reference and intention. In other words, prototypical extensions of English Future are characterized by these two features. By contrast, if the English Future is defined intensionally, then the meaning is determined by the most dominant parameter, which is future time reference.

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12With this approach I am taking issue somewhat with Bybee, Perkins, and Pagliuca when they identify a category of “old anteriors” (1994:78), which have begun developing perfective meanings; based on the principle that meanings are persistent, these forms should be viewed from the other direction as (emergent) perfectives (see my discussion below 3.3.3.1, esp. n.30).

13The terms *intension* and *extension* derive from the fields of philosophy and logic. In semantic theory, *intension* refers to “the set of defining properties which determines the applicability of a term,” whereas *extension* refers to “the class of entities to which a word is correctly applied” (Crystal 1991:130, 179–80).
In other words, there is no extension of English Future that includes intention but not future time reference, whereas there are examples that include future time reference but not intention. Hence, future time reference is the more dominant criterion (Dahl 1985:8, 10).

Thus, an intensional approach to meaning may sometimes provide more precise definitions than an extensional one. However, the more narrow meaning may not always be self-evidently the most basic one, as Dahl points out with the example *dog*: the more narrow definition of ‘male canine,’ in opposition to ‘bitch,’ is clearly not as basic as the broader meaning of ‘any type of canine’ (1985:10).

In order to remedy some of these problems, the approach taken here combines the extensional and intensional approaches. First, the prototypical meanings for a form are determined (extensional meanings), but a single prototypical meaning is not demanded. Second, a single dominant criterion is sought within the prototypical meanings (intensional meaning). This criterion constitutes the “basic” meaning of the form. By combining the extensional and intensional approaches, problems are avoided that arise from using only one or the other approach. On the one hand, using the extensional approach only does not yield as sharp a basic meaning as we would like. On the other hand, the intensional approach will not work unless secondary, context-induced reinterpretations, are first dealt with (by excluding them with an extensional approach), since they, by definition, do not share criteria with the primary meaning.

3.3 A Semantic Analysis of the BHVS

At this point the study of TAM (chapter one and 3.1) and the study of the BHVS (chapter two) intersect. More specifically, with the groundwork of a grammaticalization approach in hand (3.2)
and a foundational understanding of TAM developed above (3.1), we may deal with the BH data in an appropriate way. First, situation aspect in BH is examined (3.3.1). Following this the basic argument that BH is aspect prominent is presented (3.3.2). Finally, a detailed treatment of each verbal conjugation is given (3.3.3–5).14

### 3.3.1 Static and Dynamic in BH

The most basic division in situational aspect is that between stative and dynamic predicates (3.1.3). This division is basic in BH (and other Semitic languages), where stative and dynamic verbs are often morphologically distinct in their vowel patterns: dynamic verbs have an a theme vowel15 in qatal and a *u (> ŏ) theme vowel in yiqtol, wayyiqtol, Jussive, Cohortative, and Imperative; stative verbs have an *i (> ĕ) or *u (> ŏ) theme vowel in qatal and an a theme vowel in yiqtol, wayyiqtol, Jussive, Cohortative, and Imperative (e.g., pāqad/yiqqōd vs. kābēd/yikbād, qāṭūn/yiqṭan). Stative verbs in BH are also regularly distinguished from dynamic verbs by their lack of an active participle form (qotēl), and, instead, the occurrence of a verbal adjective with the same shape as the Qal qatal third masculine singular form, but declined adjectivally (e.g., kābēd vb. ‘he is/was heavy’ vs. kābēd adj. ‘heavy’).

However, the vowel may be obscured by phonological factors. For instance, a pharyngeal or laryngeal in the second or third position in the verbal root often changes the original theme vowel to a (e.g., *pāḥid > pāḥād ‘be in dread’; *yašluḥ > yišlah ‘send’), and the vowel distinction is

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14For the sake of consistency, where more than one choice exists for a particular semantic domain or meaning only one has been used throughout this discussion. Notable is the choice of progressive over durative, simple past over preterite, and inchoative over ingressive, although the latter term in each pair is understood as synonymous with the former.

15Theme vowel refers to the vowel appearing between the second and third root letters in a paradigm form.
neutralized in roots with a final glide (e.g., *rabi > râbā ‘be much’; *galay > galâ ‘uncover’). In addition, some verbs with a stative meaning nevertheless show the dynamic theme vowel in qatal (e.g., hâzaq ‘be strong’) despite the lack of any phonologically conditioning factors. Such examples may be evidence for Joosten’s claim that at one time there may have been a strong tendency to conform all verbs to the dynamic vowel pattern (i.e., pâqad/yiqqâd) (1998:208).

The analysis of stative and dynamic is also complicated by the fact that, according to Olsen’s privative analysis of dynamicity (see 1.4.3, 3.1.2.1; see Bybee, Perkins, and Pagliuca 1994:75), stative verbs may express dynamic situation. Thus, some verbs in BH, although they exhibit a stative vowel pattern, predominantly or exclusively express dynamic situations (e.g., lâbēš ‘clothe’). Such verbs may even develop an active participle in conjunction with their predominant dynamic meaning (e.g., lâbēš:QOT ‘clothing’).

G. R. Driver, on the basis of his postulation of *qatil (stative) as the earliest Semitic verbal form (see 2.3.1), argued that any verb form showing a stative vowel pattern should be identified as a stative even if its meaning is incongruous with a stative sense (1936:48–49). Although Driver’s claim that *qatil is the earliest verb form must be rejected, his claim that forms showing a stative theme vowel are, or at least originally were, stative is sound.

Thus, some verbs in BH may be identified as stative even though they predominantly express dynamic situations. For example, the predominant meanings for qârab ~ qarēb ‘draw near’ and lâbaš ~ lâbēš ‘clothe’ are dynamic and the theme vowels vary between the stative and dynamic pattern in qatal; however, the theme vowels consistently follow the stative pattern in yiqtol, etc.

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16See Dobbs-Allsopp 2000 for an application of Olsen’s privative model of situation aspect to the issue of the stative : dynamic distinction in BH. He also provides a helpful illustrative discussion of factors precipitating inchoative readings of stative verbs in BH.
An alternative explanation of such forms is offered by Joosten (1998), who claims that the verb vowel pattern does not indicate aspect (dynamic vs. static) but diathesis (active vs. middle). (e.g., yiqrab, yilbas) and a stative sense is attested (albeit rarely) for each (i.e., ‘be near,’ ‘be clothed’) that is supported by comparative data (see Koehler, et al. 1994:s.v.v.; Hoftijzer and Jongeling 1995:s.v.v.).

3.3.2 BH as Aspect-Prominent

The central argument constructed in the remainder of this chapter is that BH is an aspect-prominent language. By aspect-prominent I mean that the dominant parameter of the central opposition (qatal : yiqtol) is aspectual. This argument allows for other parameters to contribute to defining the verbal system, such as tense and modality. Nevertheless, the data presented below demonstrate that BH is at its core an aspectual language.

The qatal : yiqtol opposition is one of viewpoint aspect—perfective : imperfective. Thus, the argument here supports in general the Ewald-Driver standard aspectual theory. This analysis identifies BH as a fairly typical verbal system of the type represented by Bybee and Dahl’s model in figure 3.9 (repeated from figure 1.10), and which they claim “seems to occur in about every second language in the world” (1989:83; Bybee 1985:32).

Figure 3.9. Dahl’s model of perfective : imperfective opposition and tense (adapted from 1985:82; see also Bybee and Dahl 1989:83; Bybee, Perkins, and Pagliuca 1994:83).

Although either of the oppositions in figure 3.9 may singularly define a verbal system (“it is also common for either of these distinctions [aspect or tense] to occur without the other” [Bybee

17An alternative explanation of such forms is offered by Joosten (1998), who claims that the verb vowel pattern does not indicate aspect (dynamic vs. static) but diathesis (active vs. middle).
and Dahl 1989:95], thus creating either an aspect-prominent or a tense-prominent system (Bhat 1999), Dahl (1985) and Bybee (1985) present complementary arguments that aspect is more basic (“relevant” to use Bybee’s term) to verbal meaning than tense. Bybee argues that aspect “is most directly and exclusively relevant to the verb” (1985:21), relevancy being defined as the extent to which the meaning of the category affects the lexical content of the verb stem (1985:15). It is relatively clear that a verb stem’s meaning is more altered by the perfective : imperfective opposition than past : non-past one. Dahl argues that if the model in figure 3.9 were reversed (i.e., non-past : past [perfective : imperfective]), one would expect more instances of a past tense morpheme common to both aspects; however, this is not the case (1985:82). Rather, Dahl observes that languages rarely exhibit morphological similarity or identity between perfective and imperfective forms, but past and non-past imperfective forms are often morphologically similar or identical, as in Semitic, illustrated in [3.23] (1985:82; Bybee and Dahl 1989:84–85).  

[3.23]  

Arabic  
Perfective: kataba ‘he wrote’  
Imperfective: yakubu ‘he is writing’  
Past Imperfective: (kāna) yakubu ‘he was writing’ (see Wright 1962:2.21)  

While Arabic developed a periphrastic past imperfect, morphologically distinct from the general imperfective, in BH yiqtol expresses both past and non-past imperfective, as determined by the context, as illustrated in [3.24].  

[3.24]  

wayhî qūl haššôpar hōlēk w̱hāzēq m̱ōd mōsēh y̱dabbēr and-is:PAST:3MS sound the-trumpet go:QOT and-be-strong:QOT very Moses speak:YQTL:3MS w̱ēlōhîm y̱ānēnû ḇqūl and-God answer:YQTL:3MS-him in-sound  

‘And as the sound of the trumpet was growing louder and louder, Moses was speaking and God was answering him in a voice.’ (Exod 19.19)  

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18These arguments refute Kuryłowicz’s assumption that tense is more basic (see 2.4.2; see Binnick 1991:438).
By contrast, Rabbinic Hebrew (RH) developed a distinct past imperfective construction consisting of the *qatal* of the copula plus progressive *qotel* (see 3.3.5) (Segal 1927:156; Pérez Fernández 1997:108–9; so also Syriac, Nöldeke 1904:216).

Negatively, a description of the BHVS as either a tense-prominent or mood-prominent language is not as compelling. On the one hand, general arguments against BH being a tense-prominent language include the presence of a distinct class of stative verbs (3.3.1), which Bhat determines is generally absent in tense-prominent languages (1999:150). In addition, the absence of tense-shifting in BH (Endo 1996:300), a characteristic of tense-prominent languages (Bhat 1999:40), is an argument against BH being tense-prominent. On the other hand, numerous arguments may be leveled against the idea that BH is a mood-prominent language. For one, the semantic classification of the binary distinction realis : irrealis is uncertain (Mithun 1995); some linguists would question whether the distinction should be classified as modal at all (Bybee, Perkins, and Pagliuca 1994:239). In any case, Bybee, Perkins, and Pagliuca note that the marking of realis: irrealis in languages with a binary morphological distinction is rare (1994:237–38), and Bhat notes that realis : irrealis verb systems usually develop into non-future : future tense systems (1999:17; see Comrie 1985:50), unlike BH which developed into a past : non-past system in RH (Segal 1927:150; Sharvit 1980:lxii).

As a caveat, before examining the BH data, English must be used with care as the medium of any metalinguistic discussion about BH’s (and any language’s) aspectual verbal system since English is tense-prominent. Some of the problems in defining TAM in BH have arisen because scholars studying the BH verb have done so from the perspective of their tense-prominent native languages (especially English and German). Care must be taken in such cases (as in the present
study) that the TAM of verbal forms are interpreted on the basis of their meaning, not their translational equivalences in the metalinguistic language.\textsuperscript{19}

3.3.3 \textit{Qatal (including Weqatal)}


The majority of these grammars treat \textit{qatal} as perfective aspect (called “perfect” by earlier grammars).\textsuperscript{20} The variegated uses of \textit{qatal} make it all but impossible to adequately analyze the form in terms of past tense or realis modality. The difficulty with trying to explain the future uses

\textsuperscript{19}Note for example Joüon’s comments that reveal an analysis based on target language translation equivalencies of the BH verbal forms: “As in our languages, they [i.e., the BH verbal forms] mainly express tenses, namely the past, the future, and the present; but they often express them in a less complete way than in our languages because they also express certain moods of action, or aspects” (1993:355). Similarly, Waltke and O’Connor object to an imperfective identification for \textit{yiqtol}: “The (historically long) prefix conjugation (\textit{yaqtulu}) cannot be described solely in the terms of imperfective aspect. In this form the notions of aspect and time both blend (imperfective aspect in past and present time) and separate (aorist in future time)” (1990:476).

\textsuperscript{20}There are only two exceptions among those listed here. Joüon claims that trying to explain the BHVS in terms of completed (“l’achevé”) and incomplete (“l’inachevé”) action is inadequate (1923:292; 1993:356). Therefore, although he characterizes the BH verb as tense-aspect, he stresses that the forms primarily express tense distinctions, most of the aspectual distinctions being determined by the semantics of the verbal root (i.e., situation aspect) (1923:290–92; 1993:355–56). Confusingly, Joüon retains the Ewald-Driver terminology of “perfect” (“parfait”) for \textit{qatal} but employs the tense label “future” (“futur”) for \textit{yiqtol} (1923:290; 1993:354). J. C. L. Gibson, in his revision of Davidson (1901), departs from the latter’s adherence to the Ewald-Driver standard theory and appears to accept German scholarship’s characterization of the \textit{qatal} : \textit{yiqtol} opposition as a \textit{constative} : \textit{cursive} aspectual opposition (e.g., Brockelmann 1956; Meyers 1992; Rundgren 1961; see 2.5): \textit{qatal} “identifies a situation or event as static or at rest,” whereas \textit{yiqtol} identifies a situation “as fluid or in motion” (1994:60).
of qatal under a past tense identification of the form is obvious enough. Bybee, Perkins, and Pagliuca observe that perfective verbs, in contrast to past tense verbs, may express future time (1994:95). Similarly, modal theories that treat qatal as realis (e.g., Loprieno 1986; Rattray 1992; see 2.7.1.1), are unable to account for qatal in counterfactual irreal statements, such as [3.25].

[3.25] kimˈat Šākab ʼahad hāˈām ʼet-ʼištekā
as-little lay:QTL:3MS one.of the-people with-wife-your

‘One of the people easily might have lain with your wife.’ (Gen 26.10)

Other modal theories that treat qatal as indicative in contrast to modal yiqtol (e.g., Joosten; see 2.7.1.2) cannot account for the modal meanings of qatal, like performative, as in [3.26].

[3.26] bayyōm hahū kārat yhwh ʼet-ʼabram b’rīt lēˈmōr l’zārākā nātatti
on-the-day the-that cut:QTL:3MS Yhwh with-Abram covenant saying to-seed-your give:QTL:1S ʼet- hāˈāres hazzō’t minnˈhar misrayim ʼad-hannahār haggādōl nˈhar- pˈrāt
OBJ the-land the-this from-river.of Egypt to the-river the-great river.of Euphrates

‘On that day Yhwh cut a covenant with Abram saying: “To your seed I hereby grant this land, from the River of Egypt to the great river, the Euphrates River.” ’ (Gen 15.18)

Hatav (2.7.2.5) and Goldfajn (2.7.2.6) identify qatal as perfect aspect, a form that they characterize as being unable to introduce a new reference time. While the perfect meaning for qatal is common, especially in narrative, there are clear examples of qatal introducing a new reference time, such as [3.27], which contradicts Hatav’s and Goldfajn’s perfect identification of qatal (see Kienast 2001:317; on reference time movement see 1.6.2 and 4.2.1).

[3.27] a. wayyiwwālēd lahānōk ʼet-ʼirād wē’irād yālād ʼet-məˈhūyā’ēl
and-be-born:WAYY:3MS to Enoch OBJ Irad and-Irad beget:QTL:3MS OBJ Methuajael ūmˈhiyyā’ēl yālād ʼet- məˈtūsā’ēl ūmˈtūsā’ēl yālād ʼet-lāmek
and-Mehuajael beget:QTL:3MS OBJ Methusael and-Methusael beget:QTL:3MS OBJ Lamech

‘And Irad was born to Enoch, and Irad begot Methuajael, and Methuajael begot Methusael, and Methusael begot Lamech.’ (Gen 4.18)

21For other examples of qatal with a counterfactual meaning see note 44.

22Other examples of qatal advancing the reference time are Gen 30.8 and 2 Kgs 18.4.
b. b'hébrôn mālak  'al- y'húdá šebe' šānim w'sīššā ḥódāšim ūbirūšālaim
    in-Hebron reign:QTL:3MS over-Judah seven years and-six months and-in-Jerusalem
mālak  š'ášim w'sālōš šānā' al kol-yiśrā'el wihūdā
    reign:QTL:3MS thirty and-three year over all Israel and-Judah

'In Hebron he reigned over Judah seven years and six months and (then) in Jerusalem he reigned
over all of Israel and Judah thirty-three years.' (2 Sam 5.5)

Wegatal is treated here alongside qatal. This approach, which assumes a semantic as well as
morphological (i.e., etymological) relationship between these two forms, is justified in the
following section (3.3.3.1). The meanings attributed to wegatal in the standard reference
grammars may be grouped under three headings: (1) habitual past and present events, (2)
sequential or consecutive future events, and (3) apodoses or consecutive modal constructions (see
concerning wegatal is typical: “w-qataltí usually agrees with yiqtol [semantically].... W-qataltí,
on the contrary, is radically different from qatal: 1) qatal, in action verbs, mainly expresses the
past, whereas w-qataltí does not in itself express the past; 2) w-qataltí mainly expresses the future,
whereas qatal does not properly express the future; 3) the aspect of qatal is that of a single and
instantaneous action, the aspect of w-qataltí is that of a repeated or durative action” (1993:403).

In light of the obvious semantic contrast between qatal and wegatal, illustrated by the above
taxonomies, it is not surprising that scholars have long treated the two as separate conjugations.
The stress pattern variation sometimes exhibited in the first person singular and second person
masculine singular forms (e.g., šāmārtī:QTL:1S vs. w'sāmārtī:WQTL:1S and šāmārtā:QTL:2MS vs.
w'sāmārtā:WQTL:2MS) has traditionally been pointed to as evidence that qatal and wegatal are
indeed distinct conjugations (see 2.2). Ewald viewed the semantic relationship of the qatal-
Subsequent scholarship has taken this view a step further, arguing that the development of *weqatal* was on analogy with the relationship between *qatal* and *wayyiqtol* (e.g., Bergsträsser [1918–29] 1962:2.14; Bobzin 1973:153; Fenton 1973:39; M. Smith 1991:6–8; Buth 1992:101; see 2.3.5). This, however, is an oversimplification, or rather overgeneralization, of the semantics of the two forms. Neither the development nor the semantics of *weqatal* and *wayyiqtol* are analogous with regard to their relationships with *qatal* and *yiqtol*, respectively.

In the following section an examination of the grammaticalization and semantic marking of *qatal* (including *weqatal*) is offered (3.3.3.1) that will justify treating *qatal* and *weqatal* as a single conjugation, marked for perfective aspect (see 3.3.2). In the subsequent sections (3.3.3.2–3) the indicative and modal meanings for *qatal* (including *weqatal*) will be examined from the perspective that *qatal* is perfective aspect.

### 3.3.3.1 Grammaticalization of Qatal

Statistically, the most common meanings of *qatal* in BH are perfect and perfective, which are illustrated in [3.28].24

* [3.28]  
  a. yhwh elohékem hirbá 'etkem w'hinn'kem hayyóm k'kôk'bê haššâmâyim Yhwh God-your multiply:QTL:3MS OBJ-you and-behold-you the-day as-stars.of the-heavens lârôb to-numerousness

  ‘Yhwh your God has multiplied you, and behold, today you are like the stars of heaven with respect to (your) numerosness.’ (Deut 1.10)

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23 The example in [3.28b] is referred to as perfective rather than simple past on the basis of the preliminary arguments made above that BH is aspect-prominent (3.3.2); the argument below (this section) supports this initial assessment. To refer to such examples as simple past is misleading in light of an aspectual analysis of the BHVS; such designations derive from the tense-prominent metalanguage (i.e., English).

24 Other examples of *qatal* with the prototypical perfect/perfective meaning are Gen 1.1; 3.22; 4.1, 10; Deut 1.6; 1 Sam 12.3; 1 Kgs 2.11; 2 Kgs 14.2; Isa 1.4; Psa 136.23; Ruth 4.1; etc.
b. yhwh 'êlônênu dibber 'êlôn b'hôrêb
   Yhwh God-our speak:QTL:3MS to-us in-Horeb
   'Yhwh our God spoke to us at Horeb.' (Deut 1.6)

The distinction between these two meanings is contextual, and in many cases qatal may be rendered by either the English Simple Past or Present Perfect, as illustrated in [3.29].

[3.29] wayyâ’mer mi higgîd l’kâ ki ‘érôm ’âttâ hâmîn- hâ’ëš ’âšer
   and-say:WAYY:3MS who tell:QTL:3MS to-you that naked you INT-from-the-tree which
   šîwwaîtikâ l’bîlî ’âkol- mimmennû ’âkâltâ
   command:QTL:3MS-you to-not eat:INF from-it   eat:QTL:2MS
   ‘And he said, “Who told you that you were naked? Did you eat/have you eaten from the tree which I commanded you not to eat from?” ’ (Gen 3.11)

In light of these prototypical meanings for qatal, the relevant grammaticalization path is the one determined for perfectives and simple past verbs by Bybee, Perkins, and Pagliuca, given in figure 3.10 (repeated from figure 1.11).

Figure 3.10. Grammaticalization paths for perfective/simple past (adapted from Bybee, Perkins, and Pagliuca 1994:105).

RESULTATIVE (‘be’/’have’)  PERFECT  PERFECTIVE or SIMPLE PAST

COMPLETIVE (‘finish’)

According to this model, perfective and simple past verbs originate in either a resultative or a completive construction and develop into their respective meanings via a perfect value. The common origin of both perfective and simple past verbs makes their semantic similarities understandable (see Dahl 1985:79). Bhat has hypothesized that the development of perfects into perfective or simple past is determined simply by whether the language is aspect- or tense-prominent (1999:182; see 1.5.2.3). Qatal’s development along this grammaticalization path can be reconstructed from West Semitic and Hebrew evidence.

A resultative, according to Bybee, Perkins, and Pagliuca, “denotes a state that was brought about by some action in the past” (1994:63). Thus, as they admit, it is closely related semantically
to the perfect. They illustrate the difference with the English example *He is gone* (resultative) versus *He has gone* (perfect) (e.g., 1 Kgs 1.25: *he is gone down* [KJV]; *he has gone down* [NRSV]). West Semitic *qatala* (from which BH *qatal* derives) is an innovation developed from the Common Semitic verbal adjective *qatil.* The verbal adjective in Semitic (as illustrated by Akkadian) could be suffixed with subject pronouns to express predications (e.g., *qarib’anta > qarib-ta* ‘you are drawn near’) (see von Soden 1952:100–2; Kuryłowicz 1972:64–65; Huehnergard 1997:219–23), but West Semitic altered the vowel pattern and created a dynamic, perfect (as opposed to stative, resultative) verb conjugation (e.g., *qarib-ta* ‘you are drawn near’ > *qarabta* ‘you have drawn near’) (Bergsträsser 1983:11n.s; Diakonoff 1988:90; Huehnergard 1992:156; Lipiński 1997:341; Moscati 1980:133; Tropper 1998:182). This vowel shift is manifest in several BH forms that exhibit both vowel patterns. The vowel shift in these forms corresponds to a stative to dynamic semantic shift (e.g., *gāber ~ gābar* ‘be strong’ > ‘prevail’; *qārēb ~ qārab* ‘be drawn near’ > ‘draw near’; *šāmēḥ ~ šāmah* ‘be glad’ > ‘rejoice’) (see Koehler, 25

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25 Note, however, that a dynamic perfect *qatal* is posited for East Semitic Eblaite: e.g., *a-kā-al-ma-lik* ‘Malik has devoured’; *da-na-il* ‘Il has judged’ (Müller 1984:157–58).

26 This predicative use of the Verbal Adjective in Akkadian (as Huehnergard 1997 refers to it) has traditionally been referred to as the *Stative* (von Soden 1952:100–2; Borger 1979:170; see Huehnergard 1987, 1988 for discussion). Some (e.g., Leong 1994) continue to employ the outdated term *Permansive*.

27 The semantic distinction between the *qati/ula* and *qatala* patterns varies throughout West Semitic. Müller states that originally the stative *qatil* pattern was not limited to present time reference, nor to an active or passive sense (1983:38; similarly, Driver 1936:80). Like the stative : dynamic distinction in BH (3.3.1), the division is not strictly adhered to in other Semitic languages, as demonstrated by the fact that both patterns occur with a dynamic perfect meaning in Eblaite (Müller 1984:157–58), and some roots in EA occur in both patterns (Rainey 1996:303). Analyzing the opposition between the two patterns is further complicated by confusion and/or disagreements concerning the semantic analysis, as evidenced in the different labels given to the opposition: stative/passive : transitive/motion (Rainey 1996:296); passive : active (Tropper 1998:182); middle voice : active voice (Joosten 1998:207).
As figure 3.10 predicts, the dynamic verb conjugation in West Semitic, derived from the verbal adjective, initially had a primary perfect meaning (e.g., *qaraba ‘he has drawn near’) (so Daniels, in Bergsträsser 1983:21n.ac). This perfect meaning, illustrated in [3.28–29] above, is still productive in BH, alongside its perfective meaning. However, in the Canaanite of EA, the perfect meaning of qatal is statistically dominant: one-hundred out of one-hundred and seventy-five of the examples of qatal Moran examined in the Byblian EA correspondence have the sense of the English Present Perfect (the others Moran rendered with English Simple Past) (1950:27). Similarly, in Rainey’s study of the Canaanite verb in EA, a clear majority of the instances of qatal have the sense of English Present Perfect (1996:281–366).

By the period of BH, qatal had developed from a perfect into a perfective verb, evident from perfective examples like [3.28b] above (3.3.3). While the meaning of perfective is close to that of simple past, several features distinguish verbs in these two categories, and confirm the perfective identification of BH qatal. First, stative roots in simple past are restricted to expressing past states, whereas stative roots in perfective aspect often express present states by default (Bybee, Perkins, and Pagliuca 1994:92). A statistic sampling of forty-nine stative roots in qatal

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28T. David Andersen takes issue with the analysis of BH perfective qatal as derived from a resultative construction: “in Proto-Semitic . . . *qatala `anta would have meant ‘you (are) killed’, with the subject as patient, not agent. It is unclear how this could have evolved into *qatala meaning ‘you have killed’” (2000:34). However, Bybee, Perkins, and Pagliuca carefully distinguish between passives like ‘you are killed’ and resultative constructions involving intransitive verbs, in which the shift to perfect does not affect the verb’s arguments (e.g., *He is gone > He has gone) (1994:54). Thus, in Semitic, the shift from resultative to perfect can only be illustrated with intransitive verbs, such as *gariba (‘he is drawn near’ > ‘he has drawn near’) (see in figure 3.11 below, this section). Presumably, the development of the dynamic *qatala conjugation in Semitic originally occurred with intransitive verbs and subsequently spread to transitives. This explanation accords with John Huennergard’s discussion of the predicative use of the Verbal Adjective in Akkadian, which has has a passive sense with transitive verbs, and a resultative meaning with intransitive verbs (1997:27).
show that they express a present state 54 percent (326 out of 606) of the time and a past state 46 percent (279 out of 606) of the time.\(^{29}\) However, context appears to be a determinative factor in this alternation between past and present state. If the data are restricted to examples in direct speech, which has a deictic center independent of the surrounding discourse (Miller 1996:131), the distribution changes significantly—a present state 78 percent (227 out of 290) of the time; a past state 22 percent (63 out of 290) of the time—showing that present state is the default interpretation of stative in *qatal* in BH.

Second, perfective verbs, in contrast to simple past verbs, may have present and future time meanings (Bybee, Perkins, and Pagliuca 1994:95). Both the standard taxonomies for *qatal* (3.3.3) and the analysis of the form’s meanings below (3.3.3.2) include present and future meanings for BH *qatal* that are incompatible with a simple past identification of the form.

The principle of persistence of meaning (3.2.2) accounts for the fact that a perfect meaning exists alongside the perfective meaning of *qatal* in BH.\(^{30}\) This perfect meaning is especially

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\(^{29}\)The selection is based on the lists in Jouon (1993:129–30) and Driver (1936:46–47). An attested stative meaning was the primary parameter for selection, thus some very common stative roots were included despite an attested active participle (these are designated by ptc.; those with verbal adjective are marked with adj.; the predominant dynamic meanings in some forms is shown as a development (> ) of the original stative meaning: ‘*āhēb* (ptc.) ‘love’; *gābah* (adj. *gābōh*) ‘be high’; *gābar/gābēr,* ‘be strong’ > ‘prevail’; *gādal* (adj. *gādēl*) ‘be great’; *dābaq/dābēq* (adj. *dābēq*) ‘cling’ (?); *dālal* (adj. *dālal*) ‘be low’; *dāšēn* (adj.) ‘be fat’; *zāqēn* (adj.) ‘be old’; *ḥāzaq* (adj.) ‘be strong’ > ‘prevail’; *hāmēš* ‘be leavened’; *hānēp* (adj.) ‘be polluted’; *hāsēr* (adj.) ‘be lacking’; *hāpēz* (adj.) ‘(be) delight(ed) in/with’; *hāpēr* ‘be ashamed’; *ḥārad* (adj. *ḥārēd*) ‘be terrified’ > ‘tremble’; *ṭāhēr* ‘be clean’; *ṭōb* (adj.) ‘be good’; *ṭāmē* (adj.) ‘be unclean’; *yābēš* (adj.) ‘be dry’; *yāgūr* (adj.) ‘be afraid’; *yākōl* (adj.) ‘be able’; *yāp* (adj.) ‘be weary’; *yārē* (adj.) ‘be afraid’; *yāšēn* (adj.) ‘be asleep’ > ‘fall asleep’; *lābēš* (ptc.) ‘be clothed’ > ‘clothe’; *kābēd* (adj.) ‘be heavy’; *kāsēr* ‘be advantageous’ > ‘be proper’; *mālē* (adj.) ‘be full’ > ‘filled’; *nāhal* ‘be foolish’; *nām* ‘be pleasant’; *ašēm ал ам* ‘be vast’; *‘āšēš* ‘be moth-eaten’ > ‘waste away’; *pāḥad* ‘be in dread’ > ‘dread’; *šāmē* (adj.) ‘be thirsty’; *qādaš* ‘be consecrated’; *qātōn* (adj. ‘be small’); *qātal* (adj. *qal*) ‘be slight’; *qāmēl* ‘be decayed’; *qāreb/qārāb* (adj.) ‘be near’ > ‘draw near’; *rābā* ‘be much’; *rāḥaq* (adj. *rāḥēq*) ‘be far’; *rāʿēb* (adj.) ‘be hungry’; *rāʿā* (adj. *rāʿa*) ‘be evil’; *sābēš/sābā* (adj. *sābē*) ‘be sated’; *sākol/sākāl* ‘be bereaved’; *sāmēm* (adj.) ‘be desolated’; *šāmēh/šāmāhid* (adj.) ‘be glad’ > ‘rejoice’; *sānē* (ptc.) ‘hate’; *šāpēl* (adj. *šāpūl*) ‘be low’.

\(^{30}\)Bybee, Perkins, and Pagliuca have a category they label “old anteriors,” which “represent an intermediate stage between pure anterior and past or perfective. These grams have anterior as a use but also have other uses suggestive of more grammaticalized meanings” (1994:78). BH *qatal* appears to fit their definition of an old anterior.
prevalent for \textit{qatal} in narrative texts, where the narrative wayyiqtol is predominantly employed for perfective/simple past (see further 4.3.1). As already mentioned (see [3.29] in 3.3.3 above), the perfective and perfect meanings for \textit{qatal} are distinguished by context.

Bybee, Perkins, and Pagliuca hypothesize that verb forms that have developed into perfectives may be further grammaticalized and become simple pasts (1994:92). Hebrew appears to confirm this hypothesis in the development of \textit{qatal} into a simple past form in RH (Segal 1927:150; Kutscher 1982:131). The simple past meaning of \textit{qatal} in RH is manifest in the fact that statives in \textit{qatal} are restricted to expressing past states in RH and that the form no longer has any future meanings (Segal 1927:150). Isolated instances in which wayyiqtol in the Samuel-Kings source is replaced with \textit{qatal} in the Late BH narratives in Chronicles, as in [3.30], may be evidence of \textit{qatal}’s shift from perfective to simple past (see Sáenz-Badillos 1993:120; Polzin 1976:57; see Kienast 2001:315).

\footnote{M. H. Segal’s assessment appears to be correct and agrees with Eduard Kutscher’s statement that “the perfect now [i.e., in RH] denotes only past action” (1982:131). Nevertheless, Miguel Pérez Fernández objects that “M. H. Segal overstates his claim that forms like \textit{yada’i}:QT\textsubscript{L}:1S `know’] can never have a present significance in R[abbinic] H[ebrew] [i.e., \textit{I know} vs. \textit{I knew}], for in fact, we find in rabbinic literature certain idiomatic turns of phrase, such as \textit{attā’}`:āmartā`:QT\textsubscript{L}:2MS `say’], in which the present is clearly signified” (1997:108). However, none of Pérez Fernández’s examples (see 1997:116–17) involve stative roots. Beate Ridzewski does offer one example of a stative root in \textit{qatal}, which he categorizes as “Präzens”: \textit{nhnw}`smnw`:QT\textsubscript{L}:1P `be guilty’]. However, he translates it with a past inchoative sense, consistent with a simple past identification of \textit{qatal}: “wir luden Schuld auf uns” (1992:160). While these examples do not, therefore, contradict the claim that \textit{qatal} is a simple past in RH, they do illustrate the complexity of the verbal semantics in RH (see further notes 90–91), since many of Pérez Fernández’s examples exhibit a perfect meaning. In light of the claim that \textit{qatal} has become a simple past in RH, these meanings might be explained as either a persistence of the earlier perfect meaning or, more likely, contextually implied meanings that are compatible with a simple past verb, which lacks any aspectual marking (see on perfect meaning for wayyiqtol, 3.3.4.4; see Bybee, Perkins, and Pagliuca 1994:94).

\footnote{Other instances of the replacement of wayyiqtol in Samuel–Kings with \textit{qatal} in Chronicles are 2 Sam 24.4 // 1 Chr 21.4; 1 Kgs 5.1 // 1 Chr 1.26; 1 Kgs 12.16 // 2 Chr 10.16 (text corrupt); 1 Kgs 15.13 // 2 Chr 15.16; 2 Kgs 8.27 // 2 Chr 22.3; 2 Kgs 15.5 // 2 Chr 26.20; 2 Kgs 16.17 // 2 Chr 28.16.}
However, there are also passages in which the opposite phenomenon is observed (e.g., 1 Kgs 14.21 // 2 Chr 12.13; 1 Kgs 22.41 // 2 Chr 20.31; 2 Kgs 18.4 // 2 Chr 31.1).

In conclusion, the development of qatal is summarized in figure 3.11: originating in a resultative construction, qatal developed into a perfect, evidenced notably in EA Canaanite; it developed into a perfective by the period of BH, although its older perfect meaning continued to persist; finally, in RH qatal developed into a simple past.

This account of the grammaticalization of qatal still must address the question raised above (3.3.3) about the relationship between qatal and weqatal: Is weqatal a separate form from qatal? If separate, do they nevertheless have a common origin reflected in their homonymy? Ewald’s admission is telling: “None of the later Semitic languages, however, shows any trace of this ancient form [i.e., weqatal], which, even in Hebrew is less and less employed” (1879:23). More than a century later, there is still no compelling evidence of two distinct suffix conjugations in Semitic. Bauer’s attempt to find separate origins for qatal and weqatal, in contrast to his similar search with respect to yiqtol and wayyiqtol, has been unconvincing (1910; see 2.3.1).

T. David Andersen’s article is the most recent attempt to distinguish two independent conjugations in qatal and weqatal. Andersen claims, that *qatala is proto-Semitic, contra the
standard view that it is a West Semitic innovation (above this section); he argues this form underwent a semantic split to create an imperfective and a perfective conjugation in Semitic (2000:30–34). On the basis of his objections to a resultative origin of qatal for transitive verbs (see note 28), Andersen proposes that the semantic split in *qatala was based on its contrastive interaction with transitive and intransitive verbs: “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 a progressive meaning. With achievement verbs and accomplishment verbs, most of which are transitive, it tended to have a resultative meaning, which later developed into perfect meaning” (Andersen 2000:41–42).

Andersen’s hypothesis, however, is problematic because it is predicated on a faulty understanding of the distinction between resultative and perfective, and his objections to a resultative origin for *qatala in the case of transitive verbs have been refuted (see note 28). There is no evidence that in BH weqatal and qatal are limited to particular verb types—transitive or intransitive—as Andersen’s hypothesis would seem to predict.

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33 Andersen confuses resultative and perfect in his discussion: he claims that the functional equivalent in English of the Semitic resultative construction is *have + Past Participle (2000:34), but it is clear from Bybee, Perkins, and Pagliuca’s discussion that resultatives in English are constructed of *be + Past Participle (e.g., He is gone) (1994:63–67). After identifying the Dravidian Present Perfect as a perfect, Andersen translates the form with an English resultative construction: The lights are turned on (2000:41). This explains how he can object to a resultative > perfect shift for transitive verbs in Semitic (see note 28) and then propose that *qatala “tended to have a resultative meaning” with achievement and accomplishment verbs, which are mostly transitive (2001:41–42).

34 One could argue, though Andersen does not, that once the shift from progressive to imperfective and resultative to perfect was complete, qatal’s limitation to intransitive or transitive verbs was abandoned. However, by a similar argument I have dismissed Andersen’s objections to the resultative-perfect shift in the case of transitive verbs above (note 28). In any case, Andersen’s assessment of weqatal (apart from the question of its relationship with qatal) is problematic (cf. the semantic analysis in 3.3.3.3). First, he mistakenly subsumes the stative sense of *qatila under an imperfective meaning, confusing the categories of viewpoint and situation aspect (2000:28). Second, he objects...
The most common argument that *qatal and *weqatal are distinct is the morphophonemic one mentioned above (3.3.3)—the stress variation that sometimes appears in the first person singular and second person masculine singular *weqatal forms (e.g., šāmārtī :QTL:1S vs. wʾšāmartī :QTL:1S and šāmārtā :QTL:2MS vs. wʾšāmartā :QTL:2MS) (see 2.2) However, debate has persisted over whether this stress variation is actually phonemic, and whether this stress difference could possibly be formulated in terms of a “rule” (e.g., Gordon 1938; Blake 1944; Sheehan 1970). In two key articles Revell has shown the extent to which there is a discernable pattern in the stress position in the first person singular and second person masculine singular forms, but he has also shown that the stress variation is not phonemic but prosodic (1984, 1985).

Revell argues that the stress is ultimate in first person singular and second person masculine singular *weqatal forms, except when (1) the verb is in pause, (2) the verb is followed by an initially stressed word, as in wʾyāšābtā bāh (Deut 17.14) (i.e., *nesiga; see Joüon 1993:104–5), or (3) the penultimate syllable is open, as in wʾhikrī tā (Amos 9.13) and wʾnāšāʾtī (Gen 18.26) (Revell 1984:438–40). Based on his examination of stress placement in BH and the relative order of the *nesiga phenomenon and the ultimate stress on some *weqatal forms, Revell concludes: (1) “the distinguishing mark of the semantic category ‘waw consecutive perfect’ almost certainly arose after this form had ceased to be used even in contemporary literature, and probably arose within the biblical reading tradition”; and (2) “final stressing of 1cs and 2ms waw consecutive perfects . . . is anomalous, and must represent a special development within the language. It seems to a perfective identification of Semitic *(qatala (> weqatal) in conditional statements because he claims that perfective and simple past verbs rarely function in conditional statements according to Bybee, Perkins, and Pagliuca’s data (Andersen 2000:38; citing Bybee, Perkins, and Pagliuca 1994:207). However, Andersen has overlooked the conditional functions of old anteriors and perfectives listed by Bybee, Perkins, and Pagliuca (1994:79, 93).
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).

In his 1985 article Revell further explores the nature of the “semantic” marking indicated by the ultimate stress on weqatal forms. He concludes that the nature of the stress difference is prosodic, though he does not employ this term (see Dresher 1994 for a prosodic approach to the Masoretic accents): “Stress position in the perfect forms with waw consecutive is, then, conditioned by the intonation patterns characteristic of speech units into which the text was divided according to the syntactic, (other) semantic, and rhythmic factors described” (1985:299; see 280). In light of Revell’s studies, the ultimate stress on some weqatal forms must be considered a late prosodic phenomenon, and neither the remnant of an original morphophonemic stress distinction (e.g., qatála vs. qatalá, as Bauer, et al. maintained; 2.3.1), nor necessarily a TAM semantic distinction at all.

In conclusion, there is no evidence that qatal and weqatal are separate and independent conjugations or that they have different origins. The only distinction by which qatal and weqatal can be distinguished is a syntactic one: weqatal clauses are always VS word order (hence the designation weqatal), whereas qatal clauses are often SV. Based on observations concerning word order and the deontic modals (Rosén 1969; Revell 1989; Shulman 1996), we may preliminarily propose that weqatal’s VS word order indicates that it is modal.35 The modal uses of qatal (which includes weqatal), discussed below supports this claim (3.3.3.2). Based on the lack of evidence for an independent weqatal conjugation, the following discussion eschews the

35See the excursus at the end of this chapter on word order in indicative and modal clauses in BH.
For this reason the parsing label weqatal is not used in the examples in this chapter (cf. chap. two and four).

3.3.3.2 Indicative Meanings of Perfective Qatal

As already illustrated in [3.28] above (3.3.3.1), perfect and perfective are the prototypical meanings of BH qatal. Relatedly, qatal expresses other varieties of perfect, including past perfect, and future perfect, as illustrated in [3.31a–b]. Context alone distinguishes these four meanings—perfective, (present) perfect, past perfect, and future perfect—thus showing that tense in BH is relative (i.e., context-determined).

[3.31] a. wayyithallēk hānōk ’et hā’ēlōhîm wê‘ēnênnû ḵî lāqah ’ōtō and-walk:WAYY:3MS Enoch with-the-God and-be-not-he because take:QTL:3MS OBJ-him hā’ēlōhîm God

‘And Enoch walked with God and (then) he was not, for God had taken him.’ (Gen 5.24)

b. ’az tēṣē’ bammîlḥāmâ ḵî yāṣâ’ hā’ēlōhîm ẖî pāneykā then go-forth:YQTL:2MS in-the-battle because go-forth:QTL:3MS the-God before-you

‘Then you shall go forth into battle, for God will have gone forth before you.’ (1 Chr 14.15)

Due to the close relationship between perfectivity and past tense, qatal is generally limited to past time reference in the indicative. Two exceptions (besides the future perfect) to this restriction in the indicative are qatal expressing a gnomic or generic sense, and the so-called prophetic perfect, which is explained below as an immediate future meaning.

36For this reason the parsing label wQTL is not used in the examples in this chapter (cf. chap. two and four).

37Other examples of qatal with a past perfect meaning are Gen 2.2; 2.22; 3.1; 26.18; 31.34; Exod 14.5; Deut 9.16; 1 Sam 28.20; 2 Kgs 13.14, 22, 25; 14.3; Job 32.4. Other examples of qatal with a future perfect meaning are Gen 28.15; Deut 8.10; 1 Sam 20.22; Isa 11.9; Jer 8.3; Mic 5.2; Ruth 2.21.

38I also investigated the possibility of a reportative meaning for qatal. The reportative meaning arises from the combination of perfective aspect and present time reference in contexts where the gnomic meaning is excluded (see C. Smith 1991:153; see also 1.5.1). In Present Day English the reportative is most often found in sports radio broadcasting (e.g., He catches the ball and runs into the end-zone). Because the meaning is fairly restricted even in spoken language, I have been unable to find any incontrovertible examples in BH; however, qatal forms in
dominant in these non-prototypical meanings of qatal, these meanings are likewise expressed by
perfective verbs in other languages. Importantly, simple past verbs are not used in these ways
(except in the case of gnomic) since they are restricted to past time reference (Bybee, Perkins, and

Gnomic situations are essentially timeless: “they apply to generic subjects and basically hold
for all time” (Bybee, Perkins, and Pagliuca 1994:126). However, since they are thus regarded as
being in effect at the time of speaking, the present and imperfective forms are most commonly
used to express gnomic situations (Bybee, Perkins, and Pagliuca 1994:141). Nevertheless,
alongside present and imperfective forms, there are examples of past tense and perfective forms
being used in gnomic statements such as the alternation in [3.32a] between the Greek Aorist (with
past tense augment) and Present, and the use in Abkhaz of the Aorist (identified as perfective by
Bybee, Perkins, and Pagliuca 1994:93) as in [3.32b].

ou gar hē plēgē parestēse tēn orgēn, all’ hē atimia; oude to tuptesthai tois eleutherois
not for the blow produce:AOR the anger, but the disgrace; nor the beating the freemen
esti deinon... alla to eph’ hubrei.
be:PRES terrible... but the upon insult
‘For it is not the blow that causes anger, but the disgrace; nor is it the beating that is terrible to
freemen, but the insult.’

b. Abkhaz (Hewitt 1979:174):
à- ū̄ma (o-) z+ čōh♯ x'- ĵē- z, á- mš- g’ū (o-) yē+ čōh♯ x’ - ū’ t’
the goat it whom+from lose:NON-FIN the day too it him+from lose:FIN
‘He who loses a goat, loses the day too.’

Gnomic is the primary area of semantic or functional overlap between qatal and yiqtol. Both
forms are regularly used to express gnomic situations, especially in proverbial statements. Often
the alternation is within single proverbial statement, expressing equivalent or opposite actions,
theophanic language or vision reports might be explained in this way (e.g., Psa 82:1; Hab 3.3, 6; Joel 2.3).
as illustrated by the examples in [3.33].

[3.33] a. hakmōt nāšim bān’tā bēēh wē’iwwelet b’yādeyhā tehersennū
wise women build:QTL house-her and-foolish with-hands-her tear-down-it:YQTL

‘A wise woman builds her house, but a foolish (one) tears it down with her own hands.’

(Prov 14:1)

b. tākīn baqqayiš lahmāh ’āg’rā baqqāsîr ma’ākālāh
prepare:YQTL in-summer bread-its gather:QTL in-harvest food-its

‘It [i.e., the worm] prepares its food in summer and gathers its stores at harvest time.’

(Prov 6:8)

This overlap occurs regularly in BH poetry as well. When the context clearly demands a past time reference, as in [3.34a], one may hypothesize that the prefix form is the past tense (wayyiqtol) without the characteristic waC- prefix (so Held 1962; see 3.3.4.4). However, in the majority of instances both the qatal and yiqtol forms have a present gnomic sense and their alternation is stylistic, as in [3.34b] (Buth 1986).

[3.34] a. ki-hū’al- yammīm y’sādāh w’al- n’hārōt y’kōn’nehā
for he upon waters found:QTL:3MS-it and-upon rivers established:WAYY:3MS-it

‘For he found it upon waters; and he established it upon rivers.’ (Psa 24.2)

b. yitya’sbû malkē- ’eres w’rōz’nīm nōs’dū- yāḥad
take-one’s-stand:YQTL:3MP kings.of earth and-rulers conspire:QTL:3P together

‘Kings of the earth take their stand and rulers conspire together.’ (Psa 2.2)

Since gnomic statements are timeless or omnitemporal, one could argue that the TAM features of both qatal and yiqtol are effectively canceled out when used gnomically. Alternatively, based on the frequent cross-linguistically correlation between present (and imperfective) and gnomic expressions (e.g., The earth is round), one could argue that only the TAM of the perfective qatal

39 Other examples with qatal-yiqtol order in the book of Proverbs include 3.13; 11.3; 12.12; 14.18; 21.26, 29; 27.16; 28.1; 30.13; 31.18; 31.14 (stative qatal). In some instances yiqtol has a present progressive or future meaning rather than gnomic: 17.5, 20; 19.24; 21.10; 22.13; 31.11. Other examples with yiqtol-qatal order in the book of Proverbs include the following: 11.7, 21; 12.21; 20.28; 21.25; 22.9, 23.

40 Other examples of qatal with a gnomic meaning are Isa 40.7; Psa 10.3; Prov 11.2.
is canceled in gnomic expressions, due to the fact that perfectivity is incompatible with present tense (see 1.5.1). However, Dahl points out that even gnomic situations can have temporal (tense) distinctions (e.g., *Dinosaurs ate kelp*) (1985:100).

With respect to aspectual distinctions, the choice of a perfective or a imperfective in a gnomic expression is analogous to the choice of these forms for habitual expressions. Dahl explains that “in speaking of a repeated total event one can use a pf. [perfective] verb, thus stressing each individual total event, or use an ipf. [imperfective] verb, which means that the stativeness of unlimited repetition takes precedence” (1985:79). Dahl observes that some Slavic languages predominately use the perfective in habitual statements (e.g., Russian, Polish, and Bulgarian), whereas others prefer the imperfective in such expressions (e.g., Czech, Slovak, Sorbian, and Slovene). By contrast, in BH both the perfective and imperfective are freely used in gnomic statements: the perfective *qatal* views a single situation as representative of what is always (gnomic) or regularly (habitual) true, whereas the imperfective *yiqtol* presents the situation as static and comprised of many always (gnomic) or regularly (habitual) true situations.

The so-called prophetic perfect function of *qatal* has been difficult to fit into previous models of the BHVS. The function has been explained in psycho-linguistic terms—the *qatal* is used “to express facts which are undoubtedly imminent, and, therefore, in the imagination of the speaker, already accomplished” (Kautzsch 1910:312)—or as a “rhetorical device” (Joüon 1993:363). Cross-linguistic data provide an alternative explanation to these approaches: *qatal* in these instances may have an **immediate future** meaning. Bybee, Perkins, and Pagliuca in their discussion of aspectual futures note that two languages in their data have a perfective form that has an immediate future meaning in future contexts (1994:278). One of these perfective forms is
the Abkhaz Aorist, whose immediate future meaning is illustrated in [3.35a]. Instances of the so-called prophetic perfect in the Hebrew Bible, therefore, should not be analyzed as a completed event, either in terms of the speaker’s psychology or a rhetorical device. Rather, in these instances the prophet is expressing the conviction that the event is imminent, as illustrated by the translation of the example in [3.35b].

    b- ab 2-ce-ye’t’
    your father he-go:FIN
    ‘Your father is (on the point of) going.’

b. läkëñ  gàlà
    ‘ammi mibb’il- dà’at
    therefore go-into-exile:QTL:3MS people-my from-not knowledge
    ‘Therefore, my people are about to go into exile because of lack of knowledge.’ (Isa 5.13)

3.3.3.3 Modal Meanings of Perfective Qatal

The modal meanings for qatal can be grouped in four categories: performative/commissive, contingent, directive deontic, and past habitual. Performative statements are categorized as a type of deontic modality (see table 1.24). The category is equivalent to Searle’s declarative category, in which “we bring about changes in the world with our utterances” (1983:166). In English the progressive form is generally incompatible with performative statements (e.g., *I now pronounce you husband and wife*, **I am now pronouncing you husband and wife**) which may indicate that the instantaneous character of performative statements motivates the choice of a non-imperfective (or non-progressive) aspevtual verb form. P. Cole has argued that the present tense reference in performative statements is pragmatically induced: “The time reference comes about

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41 Other possible examples of *qatal* with an immediate future meaning are Num 17.27; 24.17; Isa 8.23a±; 9.1-4(?); 60.1, 4 (or reportative); Job 5.20; Lam 4.22b.
as a result of the speaker’s carrying out the act of [the utterance]” (1974:85). Thus, the choice of *qatal* for performative statements in BH is aspectually motivated (i.e., perfective instead of imperfective *yiqtol*), but the present time reference derives from the modal context of carrying out the utterance in the ‘now’ of the speech time.

**Commissive** statements, by which “we commit ourselves to do things” (Searle 1983:166), are closely related to performatives. As a result, BH grammars do not generally distinguish between performative and commissive meanings of *qatal* (e.g., Driver [1894] 1998:17). Performative and commissive modality may be distinguished in English by their compatibility with *hereby/now* and *promise*: performatives can be introduced by the former (I hereby name . . . / I now pronounce . . .), commissives by the latter (I promise . . .). Examples [3.36a–b] illustrate the performative and commissive meanings for *qatal*.

42

[3.36]  

a.  

lô’ädônî š’mâ’ênî hasâdeth nâttattî làk w”hammsâ’ârâ’âšer- bô f”kâ no lord-my hear:IMPV:MS-me the-field give:QTL:1S to-you and-the-cave which in-it to-you n”attattîhā l”ênê b”nê- ”ammî n”attattîhā làk q”bûr métetâ give:QTL:1S-it to-eyes.of.sons.of people-my give:QTL:1S-it to-you bury:IMPV:MS dead-your  

‘No my lord, I hereby give you the field, and the cave which is in it—I hereby give it to you; before the eyes of the sons of my people I hereby give it to you; bury your dead.’ (Gen 23.11)  

b.  

ûl”yišmâ’êl š’mâ’tîkah hinneh bêraktî ’ôtô w”hûprêti and-to-Ishmael hear:QTL:1S-you behold bless:QTL:1S OBJ-him and-make-fruitful:QTL:1S ’ôtô w”hirbêti ’ôtô him”ôd m”ôd OBJ-him and-increase:QTL:1S OBJ-him in-muchness muchness  

‘And as for Ishmael, I have heard you. Behold, I promise to bless him and make him fruitful and increase him very much.’ (Gen 17.20)

Ugaritic and Arabic likewise used the perfective *qtl/qatala* in performative/commissive statements (Tropper 2000:714; Wright 1962:2.2).

A second broad category of modal meaning for *qatal* is **contingent** modality (1.7.2.3). Under
this umbrella term are included conditional, temporal, causal, concessive, purpose, and result clauses. While this category was initially identified on the basis of morphologically distinct subordinate verb forms and thus termed “oblique modality” by Palmer (1986:ch. 5; see 1.7.2.3), contingent modality accurately expresses the semantics of these clause types: they can all be analyzed in terms of a protasis-apodosis construction, as illustrated in [3.37].

b. Temporal: When α (then) β.
c. Causal: Because α, β.
d. Concessive: Although α, β.
e. Purpose: α in order that β.
f. Result: α therefore β.

The use of perfects and perfectives to express counterfactual conditions is attested in a variety of languages (see Bybee, Perkins, and Pagliuca 1994:79), including English (e.g., Had I known, I would have helped.). In addition, Bybee, Perkins, and Pagliuca’s data include two languages that use the perfective (an old anterior and a perfective) for general “hypothetical” conditions, and one that uses the perfective form in purpose, temporal, and other subordinate clauses (1994:79, 93). The use of qatal and its cognates in Semitic languages is widely attested in conditional statements, including Arabic, Ethiopic, Aramaic and Syriac, Ugaritic, Phoenician, and EA Canaanite (Wright 1962:2.14–17; Dillman [1899] 1974:548; Folmer 1991; Nöldeke 1904:203–5, 265; Tropper 2000:715; Krahmalkov 1986; Moran 1950:73; Rainey 1996:355–65). In most cases the perfective qatal has a present-future temporal reference, which is explained as derived from the modal context (Peled 1992:12).

In BH qatal regularly expresses conditional, temporal, and implicated (purpose/result)
contingent modalities as illustrated in [3.38].

[3.38]  
a.  \( w\text{̃}im-y\text{̃}as\text{̃}b\text{̃}u \ p\text{̃}oh w\text{̃}am\text{̃}tn\text{̃}u \)
and-if remain:QTL:1P here and-die:QTL:1P

’And if we remain here then we will die.’ (2 Kgs 7.4)

b.  \( \text{w}h\text{ā}y\text{ā} \ b\text{ā}n\text{ā}n\text{ī} \ \text{’}\text{ān}\text{ā} \ \text{’}\text{āh}\text{ā}r\text{ē}s \ \text{w}n\text{ī}r\text{’}\text{āt̄} \)
and-be:QTL:3MS in-becloud:INF my cloud upon the-earth and-appear:QTL:3FS the-bow
be-\’\text{ān}\text{ā} \ \text{’}w\text{ž}\text{ā}k\text{ā}r\text{ī} \ ‘et- b\text{‘}r\text{ī}t\text{ī} \)
in-the-cloud and-remember:QTL:1S OBJ covenant-my

’And when I bring cloud(s) upon the earth and the bow appears in the cloud(s) then I will remember my covenant.’ (Gen 9.14–15)

c.  \( \text{kī y’d\text{ā}tīw } \ \text{l’\text{m}a’\text{ā}n } \ \text{’}\text{ās}\text{̄r } \text{y’\text{s}aw\text{w}e\text{h} } \ ‘et- b\text{ā}n\text{ā}yw w\text{̃}et- \)
for know:QTL:1S him in-order-that which command:QTL:3MS OBJ sons-his and-OBJ
bētō ‘aḥārāyw \( \text{w}\text{sām’\text{rū} } \)
derek yhwh la’āsōt š’dāqā ūmiśpāt
house-his after-him and-keep:QTL:3P way. of yhwh to-do:INF righteous and-justice
\( \text{l’\text{m}a’\text{ā}n } \text{hāb’ } \text{y}h\text{hw} h’al- ‘abrah’ām \text{’}èt ‘\text{ā}s\text{̄r } \text{dibber } \text{’}l\text{ā}y\text{w} \)
so-that bring:QTL:3MS yhwh upon Abraham OBJ which speak:QTL:3MS to-him

’For I know (=chose) him in order that he might command his sons and his household after him in order that they might keep the way of the Lord and practice righteousness and justice so that Yhwh might bring upon Abraham that which he spoke to him.’ (Gen 18.9)

In addition, BH uses qatal for counterfactual conditional statements, as illustrated by [3.39a]; in most instances, however, an irrealtional conditional conjunction—\( lū \) (positive) / \( lūlē’ \) (negative)—marks such clauses, as in [3.39b-c].

[3.39]  
a.  \( \text{’im-gull\text{ā}htī } \text{w}sār \ \text{mimmennī kōhī w’hālītī } \)
if-be-shaved:QTL:1S and-depart:QTL:1S from-me strength-my and-be-weak:QTL:1S
\( \text{w’hāyyītī } \text{k’kol- hā’ādām } \)
and-be:QTL:1S as-all.of the-man

’If I were shaved then my strength would depart from me and I would become weak and would become like all men.’ (Jdg 16.17)

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43Other examples of modal qatal with a conditional or temporal meaning are Gen 34.17; 44.22; Exod 32.34; 33.5; Num 19.11; Deut 4.30; 21.14; Judg 2.18; 16.2; 1 Sam 16.2. Other examples of modal qatal with an implicated (purpose/result) meaning are Gen 1.14; 18.25; 20.11; Deut 1.17; 2.6; Isa 5.5; 6.7; Ruth 2.7.

44Other examples of modal qatal with a counterfactual (conditional) meaning include the following: Jdg 8.19; 13.23; 14.18; 1 Sam 25.34; 2 Sam 2.27; 19.7; 2 Kgs 13.19; Isa 1.9; Zech 10.6; Psa 119.87; Job 3.13; 10.19.
b. łuḥapphire ywhh lahāmitēnû lō’- lāqah miyyādēnû
if:CF desire:QTL:3MS ywhh to-kill:INF-us not accept:QTL:3MS from-hands-our
‘ōlā umūnḥā
burnt-offering and-grain-offering

‘If the Lord had desired to kill us he would not have accepted a burnt offering and grain offering from our hands.’ (Jdg 13.23)

c. kī lūlē’ hitmahmāhnû kî− attâ šabnû zeh pa’āmāyim
for if:CF-NEG delay:QTL:1P indeed now return:QTL:1P this two-times

‘For if we had not delayed indeed (by) now we could have returned two times.’

The semantic choice of a perfective for counterfactual conditions may be explained in terms of the “time-to-actuality metaphor,” whereby temporal distance (perfective-past) is metaphorically used to express the degree of actuality (Heine, Claudi, and Hünnemeyer 1991:75). By contrast, an explanation for the contingent modal sense of qatal is not as forthcoming; however, this meaning is uncontested because of its wide attestation in Semitic. Grammaticalization studies offer a possible explanation of the contingent modal meaning of qatal in terms of “context-induced reinterpretation.” Heine, Claudi, and Hünnemeyer describe the process:

Stage I: In addition to its focal or core sense A, a given linguistic form F acquires an additional sense B when occurring in a specific context C. This can result in semantic ambiguity since either of the senses A or B may be implied in context C. Which of the two senses is implied usually is, but need not be, dependent on the relevant communication situation.

Stage II: The existence of a sense B now makes it possible for the relevant form to be used in new contexts that are compatible with B but rule out sense A.

Stage III: B is conventionalized; it may be said to form a secondary focus characterized by properties containing elements not present in A—with the effect that F now has two “polysemes,” A and B, which may develop eventually into “homophones.” (1991:71–72)

Thus, indicative qatal acquired a future-modal sense in the context of conditional clauses (Peled 1992:12). Once it had acquired this new modal sense, the use of qatal spread into purpose, result, and other contingent clauses that are compatible with the contingent conditional clause function. Finally, in BH the modal function became conventionalized, distinguished from indicative qatal by word order (see note 92). The contingent modal meanings for qatal, however, are not limited
to the traditional category of *weqatal* (note especially *qatal* following 'im 'if'; see examples in [3.38a] and [3.39a] above). Therefore, as stated above (3.3.3.1), it is more meaningful to refer to indicative *qatal* and modal *qatal*, the latter which incorporates the traditional category of *weqatal*, but also includes the other modal meanings discussed in this section (e.g., performative/commissive deontic).

The fact that contingent modal *qatal* is so much more productive in BH than in the other Semitic languages may be explained as connected to the similarly unique productivity of *wayyiqtol* in BH. Bybee, Perkins, and Pagliuca hypothesize that competition between newer and older forms can lead to the development of subjunctive forms: as the newer form takes over the semantic functions of the older form, it is used in contexts with higher “focus” than the older form; the older form, because of its low-focus status, may eventually become restricted to subordinate clauses (1994:234). The relationship between *qatal* and *wayyiqtol* is similar, though not as straightforward, since *wayyiqtol* rather than *qatal* actually represents the older form (see 3.3.4.1 and 3.3.4.4 below). However, simple past *wayyiqtol*, with the obligatory *waC-*, has been conventionalized as a narrative verb in BH (cf. the rarity of *wayyiqtol* in other Semitic languages, 2.3.2). The *wayyiqtol* narrative form, functioning in the high-focus context of the main line of narrative, relegated *qatal* to low-focus, off-the-main line functions. We may hypothesize that this in turn led to the development of a modal “subordinate” meaning for *qatal*.45

The third modal category of *qatal* is its **deontic** meaning, often equivalent to English

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45This view does not necessitate that examples of contingent modal *qatal* be interpreted as syntactically subordinate; the case is similar to indirect volitives (see 3.3.4.3), which likewise appear with the *waw* conjunction, recently discussed by Muraoka: syntactically the indirect volitive (and contingent modal *qatal*) is coordinated with the preceding clause, but the semantic relationship between the clauses may be analyzed as subordinate.
expressions with *should*. This meaning for *qatal* is frequently found in instructional types of literature, such as the building of the tabernacle in the book of Exodus. The use of modal *qatal* with a deontic sense is illustrated in a portion of the instructions for building the ark of the covenant in [3.40].

[3.40] They should make (QTL:3P) an ark of acacia wood; and its length (should be) two and a half cubits, its width a cubit and a half, and its height a cubit and a half. You should overlay (QTL:2MS) it with pure gold; inside and outside you should overlay (YQTL:2MS) it, and you should make (QTL:2MS) a molding of gold upon it all around. You should cast (QTL:2MS) four rings of gold for it and place (QTL:2MS) them on its four feet, and two rings on the one side of it, and two rings on the other side. You should make (QTL:2MS) poles of acacia wood, and overlay (QTL:2MS) them with gold. You should cast (QTL:2MS) poles for it and place (QTL:2MS) them on its four feet, and two rings on the one side of it, and two rings on the other side. You should make (QTL:2MS) poles of acacia wood, and overlay (QTL:2MS) them with gold. You should cast (QTL:2MS) poles into the rings on the sides of the ark, by which to carry the ark. The poles must remain (YQTL:3MP) in the rings of the ark; they must not be taken (YQTL:3MP) from it. You should place (QTL:2MS) into the ark the testimony that I will give (YQTL:1S) you.’ (Exod 25.10–16)

The development of this deontic modal meaning for *qatal* can found in casuistic law code constructions: *If α, then β must/should be done*. The Hebrew Bible is replete with examples like the one in [3.41] that feature modal *qatal* with both a contingent and deontic meaning.

[3.41] 'im hakkōḥēn hammāsīḥ yiḥētā l’āšmat hāḥām ṣāqārīb if the-priest the-anointed sin:YQTL:3MS to-guilt.of.the-people and-bring-near:QTL:3MS 'al ḫattātō ’āšer ḥāṭṭā par ben- bāqār tāmîm layhwh l’ḥattāt for sin-his which sin:QTL:3MS bull son.of herd complete for-yhwh for-sin-offering

'If it is the anointed priest who sins, to the guilt of the people, then he should offer for the wrong which he has committed a bull of (the) herd without blemish for Yhwh for a sin-offering.’ (Lev 4.3)

Important support for this explanation of the development of a deontic meaning for *qatal* from its conditional use is found in Abkhaz, which uses a conditional marker in deontic constructions as illustrated in [3.42].

s-cā-r-o-w+p’
I go if be:STA

‘I must go.’

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46For other examples of modal *qatal* with a deontic meaning see Exodus 25-29.
A final modal meaning for *qatal* is **past habitual** situations, illustrated in [3.43].

[3.43] **w’ne’espû-** šammâ kol-hâ’âdârîm w’gâlâlû ‘et- hâ’eben mê’al and-be-gathered:QTL:3P there-to all the-flocks and-roll:QTL:3P OBJ the-stone from-upon pi habbê‘êr w’hîšqû ‘et- hașšôn w’hešîbû ‘et- hâ’eben ’al-mouth.of the-well and-water:QTL:3P OBJ the-flock and-return:QTL:3P OBJ the-stone upon pi habbê‘êr limqômâh mouth.of the-well to-place-it

‘And all the flocks would be gathered there and they would roll the stone from upon the mouth of the well and would water the flocks and then they would return the stone to its place upon the mouth of the well.’ (Gen 29.3)

Of the meanings discussed for *qatal*, this is the most atypical for a perfective verb (but cf. Dahl 1985:79). Habitual meanings are most frequently expressed by imperfective and progressive verb forms (Dahl 1985:102), or by an overt habitual marker—especially for past habitual (Bybee, Perkins, and Pagliuca 1994:151).

In BH the past habitual is a modal meaning of *qatal*, based on word order (see note 92). The relationship between habituality and modality is variously treated by linguists. Hatav treats habituality in terms of entailments of necessity modal statements (see 1.7.2.2): *John goes to the beach every Friday — John went on Friday* (1997:134). It is not clear, however, how this implication relationship makes habitual statements modal.

Chung and Timberlake provide an alternative modal treatment of habituality (which they treat together with iterativity): “The repetition of subevents is usually understood to be distributed over time, but if the subevents are indefinite both in number and in their position along the temporal dimension, repetition can also be viewed as extending over possible worlds.” In support of their contention, Chung and Timberlake cite the use of the English “irrealis mood” *would* for past

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47 Other examples of modal *qatal* with a past habitual meaning are Gen 2.6; 29.2–3; Exod 18.25–26; 1 Sam 1.3; 7.15–16; 17.35; Amos 4.7–8.

48 The common use of imperfective for habitual expressions has led Comrie to treat habitual as a type of imperfective (1976:25).
habituals: e.g., Tage would sleep late on weekends (1985:221; see Joosten 1992:7–8). Bybee, Perkins, and Pagliuca have pointed out, however, that the would used in habitual statements is of a different origin than the conditional would (1994:238–39); nevertheless, they admit a modal nuance for would in habitual statements: “It appears that the grammatical meaning of habitual is not too far from the earlier [i.e., Old English] lexical meaning of willan [to which would is related]. This verb expressed volition, and what one wants to do, one is inclined or disposed to do” (1994:157).

In conclusion, although habitual cannot be definitively characterized as having a modal nuance, there does appear to be an association between modal and habitual cross-linguistically, as for example English would and will (Palmer 1986:216), and BH qatal. Dahl observes that languages rarely have overt habitual markers (1985:102), and therefore, it may be that verb forms have been variously selected to serve secondarily to express habituality. This is a possible explanation for BH modal qatal being used to express past habituality.

A final issue is whether qatal, like its Semitic cognates, ever expresses an optative or precative sense. G. R. Driver has examined possible examples of optative or precative qatal in the Hebrew Bible and concluded that, “on the one hand the optative or precative use of qtl is theoretically as possible in Hebrew as in the cognate Semitic languages... On the other hand, all the supposed instances in the Old Testament are doubtful; none are unavoidable and all can be otherwise explained” (1965:60; Driver [1894] 1998:25-26). After examining all the passages he treats, in addition to those referenced by S. R. Driver ([1892] 1998:25), I concur with G. R. Driver’s assessment: all the examples can be explained in terms of indicative meanings for qatal or textual problems (e.g., Psa 4.2; 7.7; in Lam 1.21 the Septuagint renders the qatal as an
imperative).  

If the range of indicative and modal meanings proposed for qatal seems unnatural, we may note the interesting parallel in Abkhaz Aorist, already cited above (3.2.4.2). B. G. Hewitt notes that in addition to portraying simple past events, it is used for gnomic present statements (see [3.32b]), immediate future expressions (see [3.35a]), “expressions of greeting, in wishes, oaths, and curses” (like BH performative and commissive) as in [3.44a], and in protasis-apodosis constructions like concessive, as in [3.44b].

   a.  ʒɔ- c‘x (o-) aa- bɔz: yə-a- xe- yt‘
      your night it:PREV good become:FIN
      ‘May your night be peaceful.’
   b.  â- ᵈak‘ [a-] ax‘ wac MOZ s-ce-yt‘ hć‘a,  a+k‘z+g‘z s- (o-)a- s-x‘o- m
      the town it to tomorrow I go:FIN (?saying) anything-at-all it:PREV I buy not
      ‘Although I shall go to town tomorrow, I shan’t buy anything at all.’

3.3.4 Yiqtol, Wayyiqtol, and Deontics


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40Note that qatal can have an optative counterfactual meaning marked by lû: Isa 48.18; 63.19.
Just as the majority of grammars treat qatal as perfective aspect, so most treat yiqtol as imperfective, forming the primary opposition in the system with perfective qatal.\footnote{Joüon (1993) and Gibson (1994) take exception to the aspectual treatment of yiqtol on the same basis that they reject an aspectual approach to qatal (see note 20). Waltke and O'Connor prefer the label “non-perfective” for yiqtol:}

In this form the notions of aspect and time both blend (imperfective aspect in past and present time) and separate (aorist in future time). Sperber [1943, 1966] and Hughes [1955, 1970] are partially right in describing it as a universal tense. And it may signify more than a blending of tense and aspect or pure tense; it may also signify either real or unreal moods—the indicative as well as degrees of dubiety and volition. In short: a form that can signify any time, any mood, and imperfective aspect (but not perfective), is not imperfective but non-perfective, “a more than opposite” of the suffix [qatal] conjugation. (The term “aorist,” meaning without limits or boundaries, is not inappropriate). (1990:476–77)

Since, however, forms labeled imperfective cross-linguistically have a similar range of meaning as BH yiqtol, Waltke and O’Connor’s issue has less to do with the semantics of BH yiqtol and more to do with the appropriateness of the label imperfective in the treatment of the perfective: imperfective opposition cross-linguistically. Dahl claims neither member is marked and the opposition is therefore equipollent (1985:72); however, a case could be made that the qatal (perfective): yiqtol (imperfective) opposition is marked, unmarked yiqtol showing more semantic “versatility” than qatal (see Binnick 1991:437; on versatility as a markedness criterion, see Croft 1990:77).
On the basis of cross-linguistic data, the perfective aspectual identification of *qatal* above (3.3.2–3) demands that *yiqtol* be identified as imperfective aspect since Bybee, Perkins, and Pagliuca’s verb data show that perfective forms only develop in opposition to imperfective forms (1994:91–92).

Taxonomies for *wayyiqtol* are less uniform than for either *qatal* or *yiqtol*; however, they commonly include meanings for *wayyiqtol* that fit one of four main categories: (1) simple past (usually with the idea of succession), (2) present perfect and past perfect (the latter under restricted circumstances); (3) logical consecution (past or present time), (4) some exceptional (apparently) future uses in prophetic contexts (Bergsträsser [1918–29] 1962:2.36–45; Davidson 1901:70–78; Driver [1892] 1998:70–99; Gibson 1994:95–102; Joüon 1993:389–96; Kautzsch 1910:326–30; Meyer 1992:2.44–46; Waltke and O’Connor 1990:543–63). Although Joüon compares the semantics of *wayyiqtol* to *qatal* (1993:395) just as he does *weqatal* and *yiqtol* (see 3.3.3 above), a comparison of the taxonomy for *wayyiqtol* with that given for *qatal* (3.3.3 above) demonstrates that the two forms overlap semantically, but are not coterminous in their meanings. A presumption of identical semantics for *wayyiqtol* and *qatal*, based on their overlapping meanings, has hampered investigations into the semantics of *wayyiqtol*. However, the consistent past state meaning of stative roots in *wayyiqtol* demonstrates that the conjugation is past tense in contrast
to perfective qatal (Bybee, Perkins, and Pagliuca 1994:92; see 3.3.3.1).\footnote{Based on the roots listed in note 29 (minus fourteen roots that do not occur in wayyiqtol): (dālal (adj. dal) ‘be low’; dāšēn (adj.) ‘be fat’; hāmēs ‘be leavened’; ḥāpēs (adj.) ‘(be) delight(ed) in/with’; ṭōb (adj.) ‘be good’; yāgōr (adj.) ‘be afraid’; kāšēr ‘be advantageous’ ‘be proper’; nāhal ‘be foolish’; nāʾēm ‘be pleasant’; ʾāšē‘ be moth-eaten’ > ‘waste away’; pūḥad ‘be in dread’ > ‘dread’; qāmēl ‘be decayed’; šākōlšākal ‘be bereaved’; šāmēm (adj.) ‘be desolated’). 96 percent (243 out of 252) of the time the stative roots in wayyiqtol express a past state; the other 4 percent (9 out of 252) have a present gnomic meaning.}

Finally, the deontic forms (Jussive, Cohortative, and Imperative) are uniformly assigned the meanings of (1) directive and volitive deontic modality and (2) implication (purpose or result) when conjoined to another deontic modal (Bergsträsser [1918–29] 1962:2.45–53; Davidson 1901:86–95; Driver [1892] 1998:50–69; Joüon 1993:373–86; Gibson 1994:80–83, 105–7; Kautzsch 1910:319–26; Waltke and O’Connor 1990, 564–79). The semantics of the deontics are not widely disputed, but the status of Jussive and Cohortative vis-à-vis imperfective yiqtol, which also expresses deontic modality, needs to be addressed.

Although the semantics of the three conjugations—imperfective yiqtol, simple past wayyiqtol, and deontics (Jussive, Cohortative, and Imperative)—are largely distinct (with the exception just mentioned with regard to yiqtol and Jussive-Cohortative), morphologically there is a great degree of similarity and even identity between some of the forms in these conjugations, requiring that they be treated together. The similarity between these conjugations derives from the fact that all three (and the infinitive construct) are based on the “prefix” vowel pattern, one of two main patterns that form the basis of the BH verbal conjugations (the other is the suffix conjugation represented only by qatal). As illustrated in table 3.3, the prefix pattern is distinguished by the theme vowel (except when it is altered for phonological reasons) and distinctive inflectional prefixes and/or affixes (the prefix is absent in the masculine singular Imperative and the Infinitive form, but the distinctive theme vowel, or inflectional suffixes for the other Imperative forms, show
their association with the prefix pattern).

**Table 3.3.** Representative paradigm of prefix pattern in BH.

<table>
<thead>
<tr>
<th>Root:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yiqtol 3MS:</td>
<td>yiqqūd</td>
<td>yikkād</td>
</tr>
<tr>
<td>Wayyiqtol 3MS:</td>
<td>wayyiqqūd</td>
<td>wayyikkād</td>
</tr>
<tr>
<td>Jussive 3MS:</td>
<td>yiqqūd</td>
<td>yikkād</td>
</tr>
<tr>
<td>Cohortative 1S:</td>
<td>ʾēpqādā</td>
<td>ʾes̲k̲ūbā</td>
</tr>
<tr>
<td>Imperative 2MS:</td>
<td>p̲q̲ād</td>
<td>k̲b̲ād</td>
</tr>
<tr>
<td>Infinitive Const.</td>
<td>p̲q̲ād</td>
<td>k̲b̲ād</td>
</tr>
</tbody>
</table>

Despite all being built on the prefix pattern, there is not complete identity between the conjugations: as mentioned, the Imperative and Infinitive lack prefixes; the Cohortative is limited to first person forms and is normally marked with a paragogic -ā suffix (e.g., first singular Cohortative ʾēq̲m̲rā vs. first singular yiqtolʾēq̲m̲ā), although the distinction is absent in roots with a glide (w or y) or glottal alef (ʾ) in the third position and when object suffixes are present. The greatest degree of morphological identity is between the Jussive and yiqtol, where the forms are only distinct in the third singular and second masculine singular forms (i.e., forms without any inflectional sufformative) in (1) in the Hifil bīnyan, where the Jussive has a different theme vowel (e.g., yaq̲h̲ēl:JUSS:3MS vs. yaq̲h̲il:YQTL:3MS), or (2) in roots with a glide (w or y) in the second or third position, where the Jussive has an apocopated form (e.g., yībēn:JUSS:3MS vs. yībēn:YQTL:3MS) (see Rattray 1992:47). Jussive and yiqtol are also distinguished syntactically by their negative constructions: Jussive uses ʾal negative while yiqtol uses lōʾ.

Wayyiqtol is distinguished from Jussive and yiqtol principally by the presence of the waC-prefix. However, in various instances, particularly in poetry, forms with the shape of yiqtol have been analyzed as “prefix preterites,” related to wayyiqtol, on the basis of their semantic similarity with the latter (see Held 1962; Rainey 1986). A particular group of such examples is the prefix pattern verb following ʾāz and tērem (see Bauer 1910:35; Greenstein 1988:8; Waltke and
O’Connor 1990:498; but cf. Rainey 1988:35). In addition, \textit{wayyiqtol} is morphologically distinct from \textit{yiqtol} in the same manner as Jussives; in other words, in those instances where the Jussive form differs from \textit{yiqtol} (in Hifil and with glide roots, above), the \textit{wayyiqtol} form follows the Jussive pattern (e.g., \textit{yaqhèl} and \textit{wayyaqhèl} vs. \textit{yaqhìl}; \textit{yìben} and \textit{wayyìben} vs. \textit{yìneh}).

3.3.4.1 Grammaticalization of Yiqtol

The morphological identity among certain forms of \textit{yiqtol}, \textit{wayyiqtol} (minus the \textit{waC}- prefix), and Jussive has led scholars at various times to propose common origins for two or more of the forms: the medieval \textit{waw}-conversive theory associated \textit{yiqtol} and \textit{wayyiqtol} (see 2.2.1), while Ewald saw a common denominator in \textit{wayyiqtol} and Jussive based on those instances in which the two forms agreed in their distinction from \textit{yiqtol} (see 3.3.4). More recently scholars have debated whether \textit{yiqtol} (*\textit{yaqtul}) developed in some manner from \textit{wayyiqtol} (*\textit{yaqtol}) (Diakonoff 1988:103), and whether *\textit{yaqtol} might have originally been polysemous, expressing the semantics of both \textit{wayyiqtol} and Jussive (Huehnergard 1988:19–20).

An entrance point into these issues is Bauer’s suggestion that the prefix verb forms (\textit{yiqtol}, \textit{wayyiqtol}, and Jussive) were originally created by the prefixing (with some suffixing) forms of the personal pronouns to a *\textit{q(u)tul} form (1910:8; see 2.3.1). Analogous with the usual view of the construction of \textit{qatal} (see 3.3.3.1), Bauer’s assessment of the prefix forms is feasible. While the similarities between the independent pronouns and the pronominal inflectional suffixes for \textit{qatal} are generally clearer, the inflectional affixes for the prefix conjugations also bear some resemblance with BH pronouns and/or pronominal suffixes, as illustrated by table 3.4.
The use of Bennett’s chart of BH forms instead of one with the historically reconstructed forms is somewhat arbitrary; the comparison is clear regardless of which forms are used.
Bybee, Perkins, and Pagliuca’s data show that resultatives are regularly constructed of infinitives with a copulative verb (1994:80). Thus, we may hypothesize that *yaqtul (> wayyiqtol) originated in a verbless predication similar to the origin of qatal, only using prefixed pronouns on the infinitive *q(u)tul form (the additional waC- prefix is discussed below, 3.3.4.4). Consistent with the grammaticalization outline of qatal given above (3.3.3.1), we may hypothesize that wayyiqtol is an older form than qatal, developing along the same grammaticalization path. The periodic reference in the literature to BH wayyiqtol’s origin in an old prefix preterite is indicative of the judgment that this form is indeed older than the West Semitic qatal innovation (see 2.3.4).

The prefix *yaqtul in the Ugaritic poetic texts is evidence of the earlier stage in the form’s development in West Semitic, when is was freely used for perfective as well as varieties of perfect (i.e., past perfect, present perfect, and future perfect) (Tropper 2000:695–701; Kienast 2001:311–12). However, Burkhart Kienast observes that even in Ugaritic *qatala was encroaching on *yaqtul’s prototypical perfective meaning (2001:312). In BH qatal is likewise encroaching on wayyiqtol (Kienast 2001:315, 317). Concurrent with qatal’s development into a simple past in RH, wayyiqtol falls out of use, suggesting the explanation that qatal came to eclipse the semantics of wayyiqtol, pushing the latter into obsolescence.

The modal Jussive *yaqtul form may be understood as originating in a construction analogous to indicative *yaqtul (> wayyiqtol), only the pronouns were prefixed to the *q(u)tul Imperative form (so Bergrsträsser [1918–29] 1962:2.10). However, Huehnergard argues against this homonymous treatment of *yaqtul (> wayyiqtol and > Jussive), stating that “it seems more likely, however, that in early Semitic there simply was no distinction between the two functions” (1988:20; see also Meyer 1960:312–16; 1992:3.39–41; see 2.5.3). Although I am partial to the
former explanation, explaining the forms as originating separately from homonymous \(^*q(u)tul\) roots, a final answer to the question cannot be given inasmuch as the issue of polysemy versus homonymy itself is problematic (see Lyons 1977:550–69).

One of the important conclusions from studies of Amarna Canaanite (e.g., Moran 1950; Rainey 1986) is that West Semitic formally distinguished two prefix conjugations by a final short vowel: \(^*yaqtul\) (Jussive/Preterite) and \(^*yaqtulu\) (Imperfect) (for earlier attempts to distinguish the conjugations based on differences in stress placement, see 2.3.2). However, the origin of the \(^*yaqtulu\) “long-form” has eluded a compelling explanation. West Semitic \(^*yaqtulu\) has been understood as cognate with the Akkadian subjunctive form of the Preterite (\(iqtul-u\)), albeit the latter is syntactically restricted (e.g., Kuryłowicz 1973:60; Andersen 2000:24). I. M. Diakonoff, followed by Andersen (2000:25), proposes that the \(-u\) suffix on the Akkadian \(iqtulu\) Subjunctive and West Semitic \(^*yaqtulu\) imperfective is either a nominative case ending or a locative case ending, by which \(^*yaqtulu\) (\(> iqtulu/yiqtol\)) was built from \(^*yaqtul\) (\(> iqtul/yiqtol\)) (1988:103). Unfortunately, there is a fundamental problem with this approach, which relates imperfective \(^*yaqtulu\) to preterite \(^*yaqtul\), in that there is no attested grammaticalization path between these two semantic domains. Likewise, this proposal rests on the faulty assumption that the Akkadian Subjunctive \(iqtulu\) should be treated as a discrete verb conjugation.\(^{53}\)

\(^{53}\)Kuryłowicz argued that Akkadian Subjunctive \(iqtulu\) was an old present verb conjugation displaced and then syntactically delimited in East Semitic by the new present \(iqattal\) conjugation (1972:60; Andersen 2000:23–25; see Garr 1998:lv–lvi, whose comments are at the least misleading concerning the Akkadian Subjunctive and West Semitic \(^*yaqtulu\)). By contrast, Diakonoff argues that \(^*yaqtulu\) originated as a subjunctive form and then spread to independent clauses in West Semitic (1988:103). However, Huehnergard explains that the Akkadian Subjunctive \(-u\) is a modal marker, independent of any one conjugation nor forming an independent conjugation itself (e.g., 1997:183–84). This does not, of course, address the related issue of the relationship between West Semitic imperfective \(^*yaqtul\) and East Semitic \(^*yaqattal\), whether they are both part of the Proto-Semitic verbal system or one is an innovation (see 2.3.1; Huehnergard 1988:19–20). This question, however, lies beyond the purview of this study.
However, Diakonoff’s proposal concerning the final -u vowel is more promising. A primary source for progressives (which develop into imperfectives) is locative constructions combined with verbal nouns (i.e., infinitives) (the other main source is infinitives or gerunds plus a copulative verb) (Bybee, Perkins, and Pagliuca 1994:128). On the basis of a locative -u(m) attested in Akkadian (von Soden 1952:87–88), which may occur on the infinitive (Huehnergard 1997:131), we may hypothesize that *yaqtulu originated in a construction of inflectional pronouns prefixed to the infinitive *q(u)tul plus a locative -u suffix. This progressive form has developed into an imperfective in BH, evident from the broader meanings BH yiqtol expresses (3.3.4; 3.3.4.2) compared with progressives, cross-linguistically. In conclusion, figure 3.13 summarizes the grammaticalization of the three main prefix pattern conjugations.

**FIGURE 3.13.** Grammaticalization of wayyiqtol, Jussive, and yiqtol.

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**Wayyiqtol/Jussive:**

pronoun + *q(u)tul  

RESULTATIVE → PERFECT → PERFECTIVE → SIMPLE PAST  

DEONTIC MODALITY

**Yiqtol:**

pronoun + *q(u)tul + u (locative)  

PROGRESSIVE → IMPERFECTIVE

The deontic Imperative requires no explanation since there is no semantic change from Proto-Semitic to BH. However, the Cohortative form, the first person deontic marked with a paragogic -â, has not yet been addressed. Traditionally, grammars have treated the paragogic -â as a lengthening of the Imperfect, in contrast to Jussive, which is a shortening of the same (e.g., Kautzsch 1910:129). The paragogic -â has been understood as contributing some sort of “intensification” (Ewald 1879:17) or “emphasis” (Driver [1874] 1998:51) to the verbal action. However, Moran (1950, 1960), followed by Rainey (1975, 1986), suggested that BH Cohortative is a reflex of a fuller Canaanite Volitive conjugation *yaqtula (see Joüon 1993:382).
Recently the modal interpretation of paragogic -â has been questioned. First, Rainey has called into question the EA evidence of a volitive conjugation, stating that, “it is abundantly clear that the EA texts have not given us any conclusive evidence for the existence of a Canaanite yaqtula pattern. In spite of Moran’s brilliant mustering of the evidence, it is still possible to argue that the -a suffix is merely the Akkadian ventive” (1996:262).

Second, examinations of the paragogic -â on forms other than Cohortatives have led to a non-modal interpretation of the suffix. Shulman has examined the 116 examples of the “long” imperative form (i.e., those with a paragogic -â) in Genesis through 2 Kings and concluded “that the long imperative form is used where the speaker requests an action directed to himself, an action done for him/to him/towards him/with him etc.” (1996:66). Shulman found that in 112 cases a prepositional phrase referencing the speaker was present (61 times) or implied in the context (51 times), thus reinforcing the reflexive interpretation of the paragogic -â. Fassberg’s examination of all 288 such examples in the Hebrew Bible has led to the same conclusion as Shulman: “the lengthened imperative הָנֵֽה [qotlâ] is used in biblical Hebrew when the action of the verb is directed towards the speaker” (1999:13). Fassberg makes the concluding observation that the paragogic -â is semantically similar to the Akkadian ventive (1999:13), which is derived from the first person singular dative verb suffix -am (von Soden 1952:107).

Third, an examination of Gentry’s list of ninety-nine wayyiqtol (non-modal!) forms with the paragogic -â yields a similar non-modal assessment of the suffix (Gentry 1998, 24). The sense

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54 The three occurrences that I have found of paragogic -â on third person yiqtol forms with a modal sense (Isa 5.19[2x]; Ezek 23.20) support Shulman’s and Fassberg’s conclusions.

55 Gen 32.6; 41.11; 43.21; Num 8.19; Josh 24.8(K), Judg 6.9, 10; 10.12; 12.3(2x); 1 Sam 2.28; 28.15; 2 Sam 4.10; 7.9; 12.8(2x); 22.24; Jer 11.18; 32.9; Ezek 3.3; 9.8; 16.11; Zech 11.13; Psa 3.6; 7.5; 69.12, 21; 90.10; 119.55, 59, 106, 131, 147, 158, 163(?); Job 1.15, 16, 17, 19; 19.20; 29.17; 30.26; Qoh 1.17; Dan 8.13, 15, 17; 9.3, 4(2x);
of the paragogic -ā is locative (hither/thither) or reflexive (myself/for my sake). Notably, all these examples are first person forms, and the locative sense (here/there, hither/thither) is more prevalent in the passages from earlier texts, whereas the reflexive sense is more prevalent in the passages from later literature. In most passages in which paragogic -ā is interpreted locatively, there is a locative expression in the near context which is antecedent to the paragogic -ā, as in example [3.46] (i.e., there expressed by the paragogic -ā refers back to the lodging place).

[3.46] wayhî ki- bā’nû ’el-hammālōn wannipt’hā ’et- ’amt’hōṭēnû
and-be:WAYY:3MS when come:QTL:1P to the-lodging-place and-open:WAYY:1P OBJ sacks-our
w’hinnēh kesep- ’ī b’pî ’amtahō
and-behold silver.of man in-mouth.of sack-his

‘And when we came to the lodging place we opened our sacks there and behold (each) man’s silver (was) in the mouth of his sack.’ (Gen 43.21)

In many of the examples from late BH literature the reflexive sense is sometimes difficult to discern, and appears to have become conventionalized on first person forms. Evidence of the conventionalization of the paragogic -ā is found in the fact that it occurs with relative frequency on ’āmar ‘say’, almost completely restricted to late BH literature (Judg 6.10; Dan 9.4; 10.16, 19; 12.8; Ezra 8.28; 9.6; Neh 5.7; 8.13; 6.11; 13.9, 11, 17, 19 [2x], 21, 22), and often without any clear reflexive sense. A development towards conventionalization of the paragogic -ā on first person forms is confirmed by the Hebrew of the Dead Sea Scrolls, in which the first person forms almost always appear with the paragogic -ā (notable exceptions are found in scrolls of the biblical

10.16(2x), 19; 12.8; Ezra 7.28; 8.15, 16, 17(K), 23(2x), 24, 25, 26, 28, 31; 9.3(2x), 5(2x), 6; Neh 1.4; 2.1, 6, 9, 13; 5.7(2x), 8, 13; 6.3, 8, 11, 12; 7.5; 12.31; 13.7, 8, 9(2x), 10, 11(2x), 13, 17(2x), 19, 21(2x), 22, 30. McFall 1982:211–14, lists ninety-seven examples; however, he has missed one example in 2 Sam 12.8 that Gentry lists, and has excluded Psa 119.63, which is not vocalized as a wayyiqtol in the Leningrad Codex, though it is so pointed in other manuscripts.

56 The paragogic -ā also occurs frequently (twelve times) on the root ntn ‘give’: Num 8.19; Judg 6.9; 1 Sam 2.28; 2 Sam 12.8(2x); Ezek 16.11; Psa 69.12; Qoh 1.17; Dan 9.3; Neh 2.1, 6, 9.
Robert Polzin incorrectly states that only one example of paragogic -â (i.e., so-called Cohortative) is found in Chronicles (1 Chr 22.5) (1976:54); in my own computer search I found eleven examples (1Chron 13.2 [2x], 3; 19.13; 21.2, 13; 22.5; 2 Chron 1.10 [2x]; 18.6; 20:9).

The idea that the paragogic -â with a reflexive sense has become conventionalized on first person forms explains its obligatory appearance on first person deontic modal forms. The attraction of a reflexive particle to a first person deontic modal is obvious enough; it may be compared with the “dative of interest” in classical Greek grammars (see Smyth 1956:341). This judgment concerning the paragogic -â renders the idea of a distinct first person modal form labeled Cohortative a misnomer. It is more accurate to label the form a first person Jussive, thus making the Jussive conjugation unrestricted with respect to person.

In addition to suggesting a volitive *yaqtula conjugation, Moran proposed two energetic conjugations (*yaqtulan(n)a and *yaqtulan(n)a), corresponding to the indicative *yaqtulu and volitive *yaqtula respectively (see table 2.6) (cf. Arabic energies yaqtulan and yaqtulana, Wright 1962:1.61). Recently it has been suggested on the basis of their complementary distribution that the paragogic -â and the Energetic nûn (i.e., singular forms with an Energetic nûn before an object suffix, and second feminine singular and second and third masculine plural forms with paragogic nûn; see Williams 1972) form a single “Energetic” system unrelated to modality (Rattray

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57 Robert Polzin incorrectly states that only one example of paragogic â (i.e., so-called Cohortative) is found in Chronicles (1 Chr 22.5) (1976:54); in my own computer search I found eleven examples (1Chron 13.2 [2x], 3; 19.13; 21.2, 13; 22.5; 2 Chron 1.10 [2x]; 18.6; 20:9).

58 Shulman tries to discern a separate nuance to the paragogic -â on first person modal yiqtol than she determined on the Imperative form. She concludes based on an inductive study of first person forms with modal meaning in Genesis–2 Kings that the forms with paragogic -â express “uncertainty and intention,” whereas the forms without the paragogic -â express “commitment, and determination” (1996:238). This conclusion is less convincing (not to mention less clear) than the one she draws with respect to the paragogic -â on Imperatives.

59 Thus, use of the label COH is discontinued in the glossing of the examples; such forms are glossed instead as first person singular or plural Jussives (i.e., JUSS:1s/p; e.g., [3.53]).
This complementary distribution between the forms is illustrated in table 3.5.

<table>
<thead>
<tr>
<th>“Energetic” prefix form</th>
<th>“Energetic” prefix form</th>
</tr>
</thead>
<tbody>
<tr>
<td>without object suffix</td>
<td>with 3ms object suffix</td>
</tr>
<tr>
<td>3ms yāsīmā</td>
<td>yāsīmenhū (&gt;ennū)</td>
</tr>
<tr>
<td>3fs tāsīmā</td>
<td>tāsīmenhū</td>
</tr>
<tr>
<td>2ms tāsīmā</td>
<td>tāsīmenhū</td>
</tr>
<tr>
<td>2fs tāsīmin</td>
<td>tāsīminhū</td>
</tr>
<tr>
<td>1s tāsīmā</td>
<td>tāsīmenhū</td>
</tr>
<tr>
<td>3mp yāsīmin</td>
<td>yāsīminhū</td>
</tr>
<tr>
<td>2mp tāsīmin</td>
<td>tāsīminhū</td>
</tr>
<tr>
<td>1p nāsīmā</td>
<td>nāsīmenhū</td>
</tr>
</tbody>
</table>

From a historical-comparative viewpoint, Testen has argued that all three “Energetic” forms can be related to a Proto-Semitic *-am/-nim (1993, 1994).

While Testen’s studies have shown the possibility of treating the paragogic -â and the nūn forms in a single Energetic system phonologically and morphologically, it is not clear that the energics have a common semantic value either cross-linguistically or within BH itself. The Proto-Semitic *-am/-nim is identical with the Akkadian ventive, which “is essentially a directional element that denotes motion or activity in the direction of, or to a point near, the speaker” (Huehnergard 1997:133). While the meaning of the paragogic -â is akin to the Akkadian ventive, the other “Energetic” forms (i.e., the nūn forms) show no such affinity, despite Rattray’s claim to the contrary (1992:112). We still await a full semantic study of the nūn forms (cf. Hoftijzer 1985; Zewi 1999).

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60 A modal meaning for the paragogic -â has already been questioned above, this section; the nūn forms have long been recognized to be associated only with the indicative yiqtol. Statistical analyses bear out the association: of the approximately 450 instances of Energetic nūn (Williams 1972:82), only five occur on a wayyiqtol form (Judg 15.2; 2 Kgs 9.33; Job 31.15; 33.24; Lam 1.13) and three with negative Jussives (2 Sam 13.12; Job 9.34; 13.21) (Rattray 1992:48); similarly, only nine of the 304 examples of paragogic nūn occur on wayyiqtol forms (Deut 1.22; 4.11; 5.23; Judg 8.1; 11.18; Isa 41.5; Ezek 44.8; Amos 6.3), and none on Jussives (Hoftijzer 1985:2–3).
3.3.4.2 Imperfective Yiqtol

A case has already been made above (3.3.2, 3.3.4) that BH yiqtol is marked for imperfective aspect. As mentioned there (3.3.4), the prototypical meanings for yiqtol (present progressive, past progressive, past habitual, gnomic, deontic modality, and general future) are regularly expressed by imperfective verbs cross-linguistically. The argument made here is that the progressive, habitual, and gnomic meanings of yiqtol are most reflexive of its imperfective value; the general future use of yiqtol is a contextually determined meaning and the modal functions of yiqtol form a secondary focus, as in the case of the modal qatal meanings. This is based on Bybee, Perkins, and Pagliuca’s observation that imperfectives prototypically have a more general meaning than the progressive, encompassing progressive meanings as well as habitual and gnomic meanings (1994:141). Examples of yiqtol expressing past progressive, present progressive, past habitual, and gnomic are given in [3.47a–d] ([3.48a] is repeated from [3.45]).\(^{61}\)

[3.47] a. wayhî qôl haššôpär hôlêk w’hâzêq mâôd mûṣeh y’dabbêr
and-be:WAYY:3MS voice the-trumpet go:QOT:MS and-strong very Moses speak:YQTL:3MS
w’ha’êlôhim yâ’ännû b’qôl
and-the-god answer:YQTL:3MS-him in-voice

‘And as the sound of the trumpet was growing louder and louder, Moses was speaking and God was answering him in a voice.’ (Exod 19.19)

b. wayyô’mer bô’ b’rûk yhwh lâmmâ ta’âmôd bâḥûṣ
and-say:WAYY:3MS enter:IMPV:MS blessed.of yhwh why stand:YQTL:2MS in-the-outside

‘And he said, “Come in, blessed of the Lord. Why are you standing outside?”’ (Gen 24.31)

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\(^{61}\)Other examples of yiqtol with these prototypical meanings are 2 Sam 15.37; 23.9–10; 1 Kgs 6.8; Psa 95.10 (past progressive); Gen 16.8; Josh 9.8; Isa 58.2–3; Lam 1.2 (present progressive); Gen 2.6; 29.2; 1 Sam 2.19; 18.5; 2 Kgs 13.20; Amos 4.7; Job 1.5 (past habitual); Gen 10.9; 29.26; 1 Sam 24.14; Amos 3.3-7; Prov 11.4 (gnomic).
Yiqtol, as other imperfectives cross-linguistically, has a **general future** meaning in a future context (see Bybee, Perkins, and Pagliuca 1994:275–76). The case is the same in English where the present verb, which Bybee, Perkins, and Pagliuca would treat as imperfective (1994:126), can express a future meaning in a future context: *He will fly to New York next week*—*He flies to New York next week* (see [3.20]). An example of yiqtol with a general future meaning in a future context is given in [3.48].

> **[3.48]** bayyōm haḥâ’ **yūšar** haššî- hazzeh b’ereṣ y’hûdâ on-the-day the-that be-sung:YQTL the-song the-this in-land.of Judah
> 
> ‘On that day this song **will be sung in the land of Judah**.’ (Isa 26.1)

Similarly, based on context, yiqtol may have the meaning of **future in the past** (compare the English Conditional), as illustrated by [3.49].

> **[3.49]** háyādō’**nēda’** ki **y’imar** hōridû ‘et- ‘āḥikem INT-know:INFA know:YQTL:1P that say:YQTL:3MS bring-down:IMPV:MP OBJ brother-your
> 
> ‘How could we know that **he would say**, “Bring your brother down”? ’ (Gen 43.7)

Yiqtol has a number of modal meanings, all of which overlap with either the deontic forms (Jussive/Imperative) or modal qatal. There is no certain explanation for these modal functions,

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62 Reading **ta’āseh** (YQTL:3FS) alleviates the logical problems in this passage: ‘**thus she would do . . . as often as she would go up.**’ See Klein (1983:2).

63 Other examples of yiqtol with a general future meaning are Exod 4.1; Deut 1.30; 2.25; Isa 17.7; Jer 4.9.

64 Other examples of yiqtol with a future in the past meaning are Num 24.11; 2 Kgs 3.27; 13.14.
nor is it clear that a single explanation can account for all of the modal meanings. Nevertheless, it is not uncommon for imperfectives (like present and future verbs) to have modal meanings alongside their primary indicative meanings (see Bybee, Perkins, and Pagliuca 1994:189). Tentative explanations are offered below for some of the semantic overlap of *yiqtol* with other modal forms.

*Yiqtol* regularly expresses **directive** and **volitive** deontic modal meanings (see table 1.24). As already discussed above (3.3.4), *yiqtol* is often morphologically identical with Jussive; however, morphologically distinct *yiqtol* forms can be found expressing volitive modality, as illustrated in [3.50a]. In addition, the common use of *yiqtol* in negative directives is distinguished from the Jussive by the use of *lō* negative (as opposed to the *’al* negative found with Jussives), as illustrated in [3.50b].

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### [3.50a]

<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>not hide: Juss 2s from-me</td>
<td>thus do: YQTL: 3s to-you God and thus add: YQTL: 3s</td>
</tr>
</tbody>
</table>

‘*Do not hide (anything) from me. Thus may God do to you and thus may he add if you hide a thing from me.*’ (1 Sam 3.17)

### [3.50b]

<table>
<thead>
<tr>
<th>Verb</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>not murder</td>
<td>do not commit adultery</td>
</tr>
</tbody>
</table>

‘*Do not murder, do not commit adultery, do not steal, do not bear a false witness against a neighbor.*’ (Exod 20.13–16)

Shulman draws a semantic distinction between the deontic forms and *yiqtol* used deontically. In her dissertation she claims that the Imperative and Jussive express an “urgency” that is absent from the indicative forms (1996:128, 187). In a recent article she refines her ideas: “The
difference between utterances, in which these forms occur, is close to the distinction between deontic and epistemic modality. Jussive forms are typically used for expressing deontic modality (wishes, commands and other expressions of volition). The indicative forms, although they may be used for either deontic or epistemic modality, are typically used for epistemic modality” (2000:180).

I think Shulman is correct in her use of epistemic and deontic modality to explain the distinction between indicative yiqtol and the Jussive and Imperative modal forms. The use of epistemic constructions to express deontic modality is explained on the basis that the division between deontic and epistemic is not discrete. Rather, the traditional notions of modal logic—possibility and necessity—function in both the deontic and epistemic realms (Palmer 1986:20): possibility expresses epistemic judgment and deontic permission, whereas necessity expresses an epistemic judgment with a higher degree of confidence, and deontic obligation (see 3.1.6). This lack of a discrete boundary between deontic and epistemic modality is manifest in [3.51], which may be interpreted as either deontic or epistemic depending on the context.

[3.51] Colin must practice every day . . . if he is as good as you say. (epistemic)
      if he wants to become the best. (deontic)

Similarly, yiqtol expresses several modal nuances as extensions of its epistemic meaning, including volitive and directive modality ([3.50] above) and dynamic modality, illustrated in [3.52].66

[3.52] ʾēkāʾ ēsāʾ lʾbaddī ṭorhākem ʿūmaššaʿākem wʾribkem
     how bear:YQTL:IS alone burden-your and-load-your and-grievence-your
     ‘How can I bear your burden and your load and your grievance(s) alone?’ (Deut 1.12)

However, the most common deontic use of epistemic yiqtol is in negative apodictic or

66 Other examples of yiqtol with a dynamic meaning are Gen 13.6; 43:7; 4.28; 1 Sam 1.13.

Like qatal, yiqtol may appear in **commissive** speech acts, as illustrated in [3.53].67

[3.53] w’d e’eskā l’gōy gādōl wa’ābārekkā wa’āgadd’llā
and-make:YQTL:1s-you for-nation great and-bless:YQTL:1s-you and-make-great:JUSS:1s
š’mekā
name-your

‘And I will make you a great nation and I will bless you and make your name great.’ (Gen 12.2)

While qatal’s commissive meaning was explained above (3.3.3.3) as an extension of its performative function, yiqtol’s commissive sense may relate to its general future meaning and the fact that future tense and modality are closely related (Palmer 1986:216–18). However, many of the examples of yiqtol in commissive expressions, as [3.53] above, appear alongside forms with the paragogic -â (i.e., wa’āgadd’llā), which may indicate that both the forms with and without the paragogic ending are first person Jussives (note that the other yiqtol forms in [3.53] cannot have a paragogic -â because they have pronominal suffixes attached; see 3.3.4.1).

Finally, parallel to modal qatal, yiqtol can express **contingent modality**, as shown in [3.54].68

[3.54] a. lū’ ʾāshīt ʾim-blemsā šām ʾarbaʿîm wāqāmmiššā
not destroy:YQTL:1s if there forty and-five

‘I will not destroy (it) if I find there forty-five (righteous persons).’ (Gen 18.28)

b. diršū- tōb w’d-al rāʾ l’māʾan ty’ū
seek:IMPF:MP good and-not evil in-order-that live:YQTL:2MP

‘Seek good and not evil in order that you might live.’ (Amos 5.14)

Although yiqtol and qatal are both commonly used in such contingent modal constructions, H. Ferguson, from his study of conditional (including also temporal, causal, and concessive) constructions, has discovered an important syntactic distinction: yiqtol is the predominant verb

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67 Other examples of yiqtol with a commissive meaning are Gen 13.15; 16.10; 17.2.

68 Other examples of yiqtol with a contingent modal meaning are Exod 8.18; Lev 13.23; Deut 31.19; Psa 139.8.
in constructions introduced with a modal particle (‘im, kî, lû), whereas qatal is dominant in those constructions without any introductory particle (1881:41). We may speculate that a contingent modal meaning for yiqtol was not sufficiently conventionalized to freely use the form without a modal particle, in contrast to modal qatal.

3.3.4.3 Jussive and the Deontic System

The modal system in BH traditionally includes the Jussive, Imperative, and Cohortative forms as the third, second, and first person “volitive” forms, respectively (Joüon 1993:138, 141). The argument above (3.3.4.1), however, was that the Cohortative is not a separate conjugation from the Jussive. Thus, there are two basic deontic forms: Jussive (any person), which is mostly morphologically indistinguishable from yiqtol, and the Imperative (second person only).

The basic meanings of the Jussive and Imperative deontic forms are directive and volitive, as illustrated in [3.55]. The two forms are not evenly distributed between these senses, however. Jussive accounts for most of the volitive expressions and Imperative predominates directive expressions, except negative directives, which are expressed by the ’al-Jussive syntagm; imperative as a rule cannot be negated.

[3.55] a. ’al- tôsep dabbêr ’elay ’ôd baddâbûr hazzeh not add:JUSS:2MS speaking:INF to-me again on-the-matter the-this

 ’Do not again speak to me on this matter.’ (Deut 3.26)

 b. qûm lek ’el-nîn’wêh rise:IMPV:MS go:IMPV:MS to Nineveh

 ’Rise up, go to Nineveh.’ (Jon 1.2)

 c. wîhî ’élôhîm ‘immâk and-be:JUSS:3MS God with-you

 ’And may God be with you.’ (Exod 18.19)
An implicated (purpose/result) contingent modality has also been attributed to the deontic forms in certain syntactic contexts, namely, when prefixed with the waw conjunction and following a clause with another deontic form (or yiqtol with a deontic meaning) (e.g., [3.55d] above). Joüon introduced the label “indirect volitive” (Fr. “volitif indirect”) for these implicated modals, in contrast to “direct volitives” (Fr. “volitif direct”) (1923:290; 1993:381; Niccacci 1990; Gropp 1991; see Muraoka 1997:229n.6, for a list of others who use these labels).

Recently, however, both Shulman and Muraoka have called into question a contingent modal meaning for deontics. Shulman claims that the implicated meanings in these cases are contextual (1996:221). More strongly, Muraoka concludes: “In summing up we would say that the syntagm in question does not have a function of normally indicating purpose. A sequence of volitive verb forms is a series of so many expressions of the speaker’s or writer’s wish and will. The fact that in some cases the second verb can be more elegantly translated as indicating a purpose of the first is essentially a question of pragmatics and translation techniques, and not of descriptive grammar and syntax” (1997:240). Thus, the example in [3.55d] is translated there literally, and according to the syntactic coordination of the two clauses; however, semantically one is justified in rendering the verse May the Lord grant that you might find rest. This treatment underscores the need to distinguish between the syntactic and semantic relationship between clauses: the waw signals a coordinate syntactic relationship, but semantically the clauses may be related in terms of contingent modality, as in the case of the so-called indirect volitive, as in [3.55d] above, as well as modal qatal (3.3.3.3; n.45).
3.3.4.4 Past Tense Wayyiqtol

The development of wayyiqtol into a simple past has been outlined above (3.3.4.1). It remains here to discuss its semantic range, the form’s peculiar waC-prefix, and the form’s periodic occurrence without this prefix in the Hebrew Bible.

The prototypical simple past meaning of wayyiqtol is illustrated in [3.56].


‘And the sons of Dan went up and fought against Leshem and captured it and struck it with the edge of the sword and took possession of it and dwelt in it.’ (Josh 19.47)

Alongside the simple past meaning, which is overwhelmingly predominate, wayyiqtol may also sometimes be rendered by the English present perfect and past perfect. However, it is not clear that these meanings are basic to wayyiqtol or even that they are semantic, but rather contextual. The present perfect meaning does not appear frequently enough to explain it as persistence of the form’s earlier perfect meaning; and the form when so use is often preceded by a qatal with the perfect meaning, which thus determines the precise nuance of the simple past wayyiqtol, as illustrated by example [3.57a].69 Sometimes the wayyiqtol has to be rendered with a present resultative construction following a perfect qatal, as in [3.57b].70

69 Other examples wayyiqtol with a perfect meaning are Gen 19.19; 31.9; 32.5; Isa 49.7; Jer 8.6; Prov 7.15.

70 This meaning is semantically related to the perfect as shown by figure 3.12 and the development of English (he is gone away > he has gone away); note Davidson’s treatment of such examples under his discussion of the present perfect meaning of wayyiqtol (1901:72).
The case of past perfect wayyiqtol is similar in that the form is often preceded by a qatal with a past perfect sense, as in [3.58].

[3.57a] a. hāšām1 ūm qōl ʾēlohim m’dabbēr mitōk- hāʾēš kaʾāšer-int-hear:QTL:3MS people voice:God speak:QOT:MS from-midst.of-the-fire as-which šāmaʾā tā attā wayyehi hear:QTL:2MS you and-live:WAYY:3MS

‘Has a people heard the voice of God speaking from the midst of the fire as you have and (have) lived?’ (Deut 4.33)

b. kōnantā ʾereš wataʾāmōd establish:QTL:2MS earth and-stand:WAYY:3FS

‘You have established (the) earth and it stands.’ (Psa 119.90)

Notice that wayyiqtol is comparable to the English Simple Past verb, used to render the former in [3.57a] and [3.58]: the perfect aspect is conveyed to wayyiqtol by the preceding qatal with a perfect or past perfect meaning, just as the perfect aspect is conveyed to the English Simple Past by the preceding Perfect (has heard) or Past Perfect (had left). The issue of wayyiqtol expressing past perfect entails issues of the movement of reference time in narrative; therefore, the matter is dealt with in more detail in chapter four (4.3.1).

As discussed above with respect to qatal (3.3.3.3), the use of perfective and past tense used for counterfactual statements may be explained on the basis of the “time-to-actuality metaphor” (Heine, Claudi, and Hünnefelder 1991:75; see also Palmer 1986:210–13). Thus, wayyiqtol is also found in counterfactual expressions such as [3.59].

71Other examples of wayyiqtol with a counterfactual meaning are Gen 19.9(?); Isa 48.18–19; 1 Sam 25.34.
Disregarding the preposition min (‘from’) and translating according to the sense demanded by the verse. See commentaries for suggested emendations.

Other examples of wayyiqtol with a gnomic meaning are Deut 3.14; Amos 5.8; 6.3; Prov 11.2, 8; 12.13.
Discussions of wayyiqtol in recent years have centered around its supposed function of representing mainline narrative events in temporal succession, as illustrated in [3.56] above. These issues are reserved for treatment in chapter four, but such discussions have often included speculation about the waC- prefix and what, if anything, it contributes to the semantics and/or discourse-pragmatics of wayyiqtol. Discussion of the origin and shape of the waC- prefix is nothing new (see list of proposals in McFall 1982:217–19). Analyses may be classified into three types (see Testen 1998:193–94). First, the prefix consists of the waw conjunction plus some other element that has been assimilated into the following consonant to create the geminated prefix (e.g., Ewald 1879:19, who proposed an assimilated ’aż ‘then’). Second, the prefix is an alternate form of the conjunction with a different meaning (e.g., Driver 1936:92, who suggests the alternate form is on analogy with the Akkadian -ma suffix on verbs). Third, the prefix represents a secondary distinction made simply to disambiguate wayyiqtol from the waw conjunction plus the imperfective yiqtol or Jussive (e.g., Driver [1892] 1998:72; Müller 1991).74

This latter approach, which is agnostic concerning the origin of the waC- prefix, begs the question of why the prefix has the form that it has in BH. Testen has recently proposed a theory of the first type, arguing that the prefix form consists of the waw conjunction prefixed to a particle that originated as an *l that became syllabic (*\l) in environments without an adjacent vowel. Testen proposes that this form is the origin of several particles in Semitic, including the definite article (haC-), precative la-, and asseverative l-, the last of which is realized in Akkadian as lû (e.g., lû iqtul ‘may he kill’) (see von Soden 1952:105, 176; Huehnergard 1997:326), the negative

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74The most recent proposal of this type is Washburn’s that claims waC- is a grammatical formative, a part of the inflection of wayyiqtol that adds nothing semantically to the form (1994:40–41).
DeCaen also identifies a function word in the prefix *waC-, explaining it as a phonologically impoverished (he uses the term “underspecified”) subordinating conjunction (1995:128). However, DeCaen identifies the verb form to which *waC- is prefixed as modal Jussive in order to account for the VS word order.

Other examples of wayyiqtol in conditional/temporal clauses are Gen 39.18; Exod 20.25; 1 Sam 14.24; Hos 11.1; Job 9.16.
In addition to these counterexamples with respect to the sequential view of \(\text{waC}\)-, the discussion in chapter four will show that temporal succession is dependent on a variety of factors, including aspect and adverbial modification, making it unlikely that the prefix by itself marks succession.\(^78\)

We must conclude either the semantic value of the \(\text{waC}\)-prefix eludes us or that the function word has become semantically bleached.\(^79\)

Few scholars any longer dispute that instances of *wayyiqtol* without the characteristic *waC*-occur in the Hebrew Bible (i.e., preterite *yaqtul*) (but cf. Zevit 1988), as demonstrated in [3.63]
by virtue of the parallel passage in which the form has the waC- prefix.80

[3.63] wayyērā'û ʿāpiqē yām yiggālû mōsēdôt tēbēl
and-be-seen:WAYY:3MP channels.of sea be-uncovered:YQTL:3MP foundations.of world

‘And the channels of the sea were seen; and the foundations of the world were uncovered.’
(2 Sam 22.16; cf. the parallel in Psa 18.16 where the forms is wayyiqtol: wayyiggālû)

The semantic identity between forms without the waC- prefix and those with it gainsay any explanations that identify the prefix as determining the TAM of wayyiqtol. Unfortunately, identification of such examples is mostly ad hoc because of the morphological similarity and even identity between forms of imperfective yiqtol, Jussive, and past wayyiqtol without waC-.

The prefix verb forms following the conjunctions ʿāz (‘then’) (twenty times), and térem (‘before’) (twenty-six times) are regularly identified as past wayyiqtol without the waC- prefix (e.g., Greenstein 1988:8; Waltke and O’Connor 1990:498; Meyer 1992:3.43–44; but cf. Rainey 1988:35). It is problematic, however, that of the eighteen examples that should show a “short” (= Jussive) form (ten following ʿāz: Exod 15.1; Num 21.17; Deut 4.41; Josh 8.30; 1 Kgs 8.1; 11.7; 12.18; 15.16; 16.5 2 Chr 5.2; and eight following térem: Gen 2.5; 1 Sam 3.3; 9.3; 2 Kgs 2.9; Isa 66.7; Jer 47.1; Ezek 16.57; Psa 119.67), only one example does: 1 Kings 8.1 (ʿāz yaqhēl ‘then he gathered’), and in the parallel passage, 2 Chronicles 5.2, the form is vocalized as a short form but written plene (ʿāz yaqhēl) (see 3.4.4). In addition, three examples following térem have a paragogic or energetic nūn, which is associated with the imperfective yiqtol (Deut 31.21; Josh 2.8; 1 Sam 2.15).

Isaac Rabinowitz has offered an alternative explanation of ʿāz followed by a prefix form that does not identify the verb as past wayyiqtol minus the waC- prefix, but imperfective yiqtol:

80Other possible examples of wayyiqtol without the waC- prefix (i.e., preterite *yaqtul) are Exod 15.5–6; Deut 2.12; 32.8, 10, 11, 13; Judg 2.1; 2 Sam 22.14 (cf. Psa 18.14); Psa 18.12 (cf. 2 Sam 22.12); 24.2.
Temporal ’āz + perfect always marks a consecution in an uninterrupted narration of past actions or events: first so-and-so did such-and-such, then (’āz) so-and-so did (perfect) such-and-such (or: first such-and-such happened, then such-and-such). ’āz + imperfect in a past-definite context, on the other hand, is never thus strictly sequential. Rather, referring to the foregoing context of narrated past events, ’āz + imperfect indicates this context as approximately the time when, the time or circumstances in the course of which, or the occasion upon which the action designated by the imperfect verb-form went forward: this was when (’āz: i.e., the time or occasion or circumstances mentioned or spoken of in the foregoing context) so-and-so did (imperfect) such-and-such. The imperfect verb-form is used in these instances because the action is thought of as having taken place before the completion of, hence as incomplete relative to, the actions described as completed in the preceding context. (1984:54)

Unfortunately Rabinowitz’s approach suffers from two errors. First, his basic distinction of temporal succession for ’āz plus qatal versus simultaneity for ’āz plus yiqtol is not valid. The sense at that time with reference to the contextually determined time can be applied to ’āz plus qatal just as often as ’āz plus yiqtol as Kautzsch points out and example [3.64] demonstrates (Kautzsch 1910:314).

[3.64] úlšēt gam-hû yullad- bēn wayyiqrā’ ’et- š’mô ’énôš and-to-Seth also-he be-born:QTL:3MS son and-call:WAYY:3MS OBJ name-his Enosh ’az hûhal liqrô’ bšêm yhwh then begin:QTL:3MS to-call:INF on-name.of yhwh

’And to Seth also was born a son and he named him Enosh. At that time (men) began to call on the name of Yhwh.’ (Gen 4.26)

Secondly, Rabinowitz conception of complete versus incomplete action is confused: how can an event which is conceived of as having occurred before another completed action be conceived of a relatively incomplete with reference to that complete action?

Rabinowitz’s explanation has been partially endorsed by Revell, who, however, reinterprets the approach within his tense model of the BHVS: “An imperfect introduced by ṭáb (’āz) represents an event which is present relative to its past context” (1989:11). Similarly, Hendel treats yiqtol following both ’āz and térem as a relative future, in which the event (E), portrayed by ’āz/térem plus yiqtol, is placed relatively after (in the future) the reference time (R), which is set by the
narrative context or the verb in the main clause (1996:159). However, this approach only works consistently with térem, since as Hendel points out, 'āz does not require a relative future verb, as does térem (1996:160).

Hendel’s treatment of térem makes sense of the temporal ordering of events in an example such as [3.65]: the subordinated event of finishing speaking (E) is preceded by the main clause event of Rebecca coming out (R). Logically, R precedes E temporally, as specified by térem.

Thus, yiqtol is used in this example, as in [3.49], of an event as relatively future in a past context.

[3.65]  
I before finish:YQTL to-speak:INF into-my-heart and-behold Rebecca coming-out:QOT 'Before I (had) finished speaking in my heart, behold, Rebecca (was) coming out.' (Gen 24.15)

This approach may appear counterintuitive to English-speakers because the subordinated event (E) can appear in the Past Perfect in English, thus giving the impression that the event is before not after R. However, the discrepancy rests in the fact that English, unlike BH, is a tense-shifting language (see Endo 1986:300). While the above analysis of future in the past appears to require an English Conditional (Before I would finish speaking), English employs a Simple Past in the subordinate clause, just like the verb in the main clause (R), or it may be back-shifted to a Past Perfect. That this is a syntactic phenomenon in English and not semantic is evident from the examples in [3.66] in which backshifting is optional regardless of how the adverb portrays the order of the two situations.

[3.66]  
a. Before John (had) finished cleaning, Kathy came home.  
b. After John (had) finished cleaning, Kathy came home.

Thus, the térem-yiqtol syntagm does not preserve the wayyiqtol past tense form without the waC-prefix, and should not be interpreted as past perfective. Instead, yiqtol in this syntagm in a past context has the sense of a relative future in the past (see 3.3.4.2, [3.49]) (thus accounting for the
three examples with paragogic or energetic *nun*). However, since English is a tense-shift language, the verb is translated with English Simple Past or Past Perfect.

As mentioned, however, Hendel’s approach does not explain the use of *yiqtol* following *’āz*. In fact, *’āz* does not function like *tērem*, but temporally locates the event as approximately simultaneous with the preceding narrative context (so Kautzsch 1910:314). The TAM values of the verb forms following *’āz* are not limited by the adverb. Thus, we are back at the initial problem created by the eight examples of *’āz-*yiqtol (i.e., minus 1 Kgs 8.1 and 2 Chr 5.2) some of which we can find parallel or analogous passages with *wayyiqtol* (cf. Josh 8.30 and 1 Kgs 11.7 with Gen 8.20 and 1 Sam 14.35; compare Exod 15.1 and Num 21.17 with Judg 5.1). There is no apparent explanation for these forms, though on the basis of the semantic model here, they should be identified as tense *wayyiqtol* forms without the *waC*-prefix, as the contexts demand.^[81^]

### 3.3.5 Qotel

*Qotel* has been largely neglected in semantic studies of the BHVS (e.g., Bauer 1910; Driver 1936; but cf. Driver [1892] 1998), but scholars have recently argued that a complete picture of the BHVS is impossible without treating *qotel*’s role in that system (e.g., Joosten 1989; Hoftijzer 1991). The major difficulty in treating *qotel* with the finite verbal forms is its split adjectival–verbal character. Therefore, we must first address the issue of distinguishing *qotel*’s prototypical verbal functions from its prototypical adjectival functions.

The difficulty in distinguishing neatly between *qotel*’s adjectival and verbal functions is that

---

^[81^]The orthography in 1 Chr 5.2 (*yaqḥēl*) could be interpreted as indicating that these examples of past tense *wayyiqtol* have been altered in the process of transmission (first being written *plene*, then being reinterpreted as long *yiqtol* forms) due to their infrequency and morphological relationship with Jussive and *yiqtol*. 
the category of ‘adjective’ is problematic, as demonstrated by recent linguistic studies (Wetzer 1996; Stassen 1997). Harrie Wetzer, followed by his colleague Leon Stassen, has embraced what they term the “continuum hypothesis” to explain the category of adjectives. According to this hypothesis, a discrete class of adjectives does not exist in language; instead, on the continuum between verbs and nouns there exist “nouny adjectives” (or adjectival-nouns) and “verby adjectives” (or adjectival-verbs). The continuum is based on the measure of increasing time-stability: verbs, which express events or actions, are on one end of the continuum, while nouns, which express time-stable concepts, are at the other; between these two extremes are adjectives, which express properties (Wetzer 1996:43–52). A model of the continuum hypothesis is given in figure 3.14 (// indicates word class boundary; ?? indicates fuzzy word class boundary).

**Figure 3.14.** The Continuum Hypothesis for Adjectivals (adapted from Wetzer 1996:50, 52).

![Continuum Hypothesis Diagram](image)

Wetzer classifies languages as featuring either verby or nouny adjectives based on which “predicate forming strategy” they use for predicate adjectives: (1) person markings, like verbs; (2) use of an overt copula, like nouns; or (3) zero marking, meaning neither of the first two strategies is used (1996:86–101). In other words, verby adjective languages use the same predicate forming strategy for adjectives as for verbs, while nouny adjective languages use the same predicate forming strategy for adjectives as for nouns; zero marking uses neither of these strategies. However, BH does not fall neatly into any of these categories. Instead, BH has a closed set of
‘verbal adjectives’ (e.g., zāqēn, kātūb), which act as verby adjectives when inflected with verbal afformatives (e.g., zāqantī ‘I am old’) or as nouny adjectives (e.g., ’ānī zāqēn ‘I (am) old’). In addition, it has an open set of nouny adjectives (e.g., qārōb ‘near’), consisting of several common adjectival patterns (e.g., qātōl, qātāl, qātil).\(^2\)

One of the important implications of typological studies of adjectives, is that a consistent correlation has been shown between verby adjectives and aspectual languages on the one hand, and nouny adjectives and tensed languages on the other (Wetzer 1996:289–95; Stassen 1997:347–57). Stassen, who treats Semitic languages in particular, observes that Akkadian has verby adjectives (i.e., Verbal Adjective *qatil), whereas both BH and Classical Arabic are mixed with respect to their adjectives (as described above for BH); finally, both Modern Hebrew and Colloquial Arabic have nouny adjectives. He concludes, “In comparison with Akkadian, Biblical Hebrew and Classical Arabic form cases in which the drift from an aspectual to a temporal [i.e., tensed] orientation of the verbal system has proceeded further” (1997:493–99; quote on 495). This conclusion confirms the argument made concerning the grammaticalization of the BHVS: it is moving from being an aspectual system towards becoming a tense system (see 3.3.3.1). By the Rabbinic period, Hebrew has essentially become a tensed language (Segal 1927:150; Pérez Fernández 1997:107–8).

With this background on adjectivals, we can approach the semantics of qotel. Little is known of the grammaticalization of qotel. Therefore, the discussion here begins with J. W. Dyk’s syntactic treatment, in which she illustrates the verbal-adjectival character of qotel with the

---

\(^2\)By open class is meant a word class whose membership set is theoretically unlimited. The larger number of nouny adjectives in BH and the productivity of the nouny adjective patterns into post-BH demonstrates that it is an open class. By contrast, the verbal adjectives are a closed class (see Crystal 1991:58, 243).
example in [3.67] (1994:67), in which qotel is double marked, both nominally by being in the construct form, and verbally with a following direct object.

\[
\begin{align*}
[3.67] & \quad \text{wēte- halwiyyim mšār'tē} \\
& \quad \text{‘... and the Levites who serve me’ (Jer 33.22)}
\end{align*}
\]

This example demonstrates that qotel is an “intermediate form” (Gordon 1982:46), having both verbal and adjectival qualities (see Dyk’s comments, 1994:67). Thus, the functions of qotel cannot be divided up into discrete categories of verbal and adjectival functions.\[^{83}\]

Dyk’s taxonomy of the nominal and verbal elements to which the qotel may relate, given in [3.68], illustrates the “intermediate” character of the form (1994:210–11).

\[
\begin{align*}
[3.68] & \quad \text{a. A noun in the construct may be governed by qotel in the absolute state.} \\
& \quad \text{b. An noun in the absolute state may govern a qotel in the construct state.} \\
& \quad \text{c. Qotel may modify a noun phrase attributively or appositionally (number and gender are required in both cases; agreement in definiteness is required for an attributive function).} \\
& \quad \text{d. Qotel may be the predicate of a small clause.\[^{84}\]} \\
& \quad \text{e. Qotel may be the complement of a non-copular verb.} \\
& \quad \text{f. Qotel may be an adjunct of a non-copular verb.} \\
& \quad \text{g. Qotel may be the subject of a non-copular verb.} \\
& \quad \text{h. Qotel may be the subject or predicate of an overt or non-overt copular verb.}
\end{align*}
\]

Dyk contends that qotel may be “reanalyzed as the main verb of the proposition” when (1) it

\[^{83}\text{Ammon Gordon shows that qotel is still an “intermediate form” in RH, because it may still be doubly marked as in BH (see [3.67]), as illustrated in (a). By contrast, qotel’s verbal and nominal functions are strictly distinguished in Modern Hebrew, so that although examples such as (b) are ambiguous, qotel in such instances must be interpreted as either a nominal or verbal predicate.}\]

\[^{84}\text{Small clause} \text{ is a term used in government-binding theory to refer to clauses without a finite verb or infinitival to. Its structure is [NP XP] in which XP can be an AP, NP, etc., such as Kathy thought [John, smart AP] (see Crystal 1991:319).}\]
Hebrew has no copula in present tense expressions. Two analyses of this common type of phenomenon are possible. The first, dubbed the “dummy hypothesis,” discounts the use of copulas generally: when the copula exists it is only as a site to locate TAM markings, and thus, when it is not present the predication is unmarked for TAM (so Lyons 1968:323; see Stassen 1997:65–76, for criticism of the hypothesis). Thus, present tense small clause expressions are treated as unmarked for TAM since there is a cross-linguistic propensity for zero copula in such expressions (see Stassen 1997:65). The second explanation, advanced with respect to Modern Hebrew by Uri Shlonsky, is that in present time small clauses with qotel the copula is only phonologically null. The lack of a copula to express present time in Hebrew makes the language “defective morphologically,” but positing a copula in such expressions, is “perfectly regular from a syntactic point of view” (1997:39). With respect to the present semantic analysis, which of these analyses is more correct is moot.

The following are the only examples of copula plus qotel expressing past progressive in BH: Gen 37.2; 39.22; Exod 3.1; Deut 9.24; Josh 5.5; Judg 1.7; 16.21; 1 Sam 2.11; 2 Sam 3.6; Zech 3.3; Job 1.14; Dan 10.2; Neh 1.4 (see Kautzsch 1910:360).
from aspect to tense.

The implications of the above analysis of *qotel* are three. First, we should dismiss the claims by some scholars that *qotel* is an integral part of the BH finite verbal system as a present tense form (e.g., Joosten 1989; DeCaen 1995; see 2.7.1.2–3); such a claim is accurate only of RH. Second, a basic meaning for *qotel* in terms of its intersection with the finite verbal system in BH must be established on the basis of its predicative occurrences, as outlined by Dyk ([3.68] above). And third, the basic verbal meaning determined from such a study is associated with the predicative syntagm, not the *qotel* form alone.

Based on this approach we can discern **progressive aspect** as the basic TAM value of the copula-*qotel* syntagm. Progressive aspect is defined by Bybee, Perkins, and Pagliuca as “an agent is located spatially in the midst of an activity at reference time” (1994:136), and they list several examples of progressives derived from a copula plus non-finite verb syntagm (1994:128). The predicative *qotel* syntagm in BH is, not surprisingly, often accompanied by locative phrases, as in [3.69].

[3.69] w^w^ahrəhəm ʾôdənnû ʾôməd ʾlipnê yhwh
and-Abraham yet-he standing:QOT:MS before Yhwh

‘and Abraham was still **standing before Yhwh.** ’ (Gen 18:22)

The reference time in examples like [3.69], fixed by any number of contextual factors (see Gordon 1982:6–7), determines the time reference of *qotel*. Without any grammatical or contextual temporal indicators, *qotel* expresses a progressive situation in present time, or a **gnomic**, as

---

87Other examples of *qotel* with a past progressive meaning are Gen 24.30; 37.15; Judg 9.43; 1 Sam 9.11; 1 Kgs 1.25, 42; Job 1.16-18.
illustrated in [3.70a–b].

[3.70] a. ‘änōkî bōrahāt
   I fleQ:QOT:FSA
   ‘I am fleeing.’ (Gen 16.8)

   b. dōr hōlēk ŵdōr bā’ ŵhā’āres l̂ōlām ʿōmādet
gen. goQ:QOT:MS and. generation comeQ:QOT:MS and. the-earth to-forever standQ:QOT:FS
   ‘A generation goes and a generation comes, but the earth stands forever.’ (Qoh 1.4)

The other meaning that qotel may express is **expected future**, to use Bybee, Perkins, and Pagliuca’s label (1994:249; cf. Steinspring 1970). This meaning, also frequently expressed by the English progressive (e.g., *I am traveling to Canada this summer*), is expressed by *qotel* in [3.71].

[3.71] kiʿänōkî mēt bā’āres hazzōl t̄ēnenēl ʿōbēr ṣē-hayyarden ŵē-attem
   for I dieQ:QOT:MS in-the-land the-this is-not-I cross-overQ:QOT:MS OBJ the-Jordan and-you
   ṣōbʾrim
cross-overQ:QOT:MP
   ‘For I am going to die in this land; I am not going to cross over the Jordan, but you are going to cross over.’ (Deut 4.22)

In summary, *qotel* is a younger form developing along the same path as the older imperfective *yiqtol*. Their interaction, like that of *qatal* and *wayyiqtol*, resulted in a semantic shift in the older form as the younger one expropriated functions originally fulfilled by the older form.

### 3.4 Conclusions

The aim of preceding discussion has been to construct a grammaticalization model of the BHVS as a means of more clearly discerning the semantics of the BH verbal forms and explaining

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88Other examples of *qotel* with a present progressive or gnomic meaning are Gen 4.10; Exod 14.25; Amos 4.1, 13; Prov 10.17.

89Other examples of *qotel* with an expected future meaning are Gen 6.13, 17; 15.3; 18.17; Exod 9.17–18; 1 Kgs 2.2.
the form-meaning asymmetries observed among them. This section summarizes the grammaticalization model and the semantic discussion.

### 3.4.1 Grammaticalization of the Hebrew Verb

The preceding analysis of the BHVS has demonstrated two different types of development. At one level it has outlined the grammaticalization of individual verbal forms within specific domains. These results are summarized in table 3.6, which treats the development of the verbal forms by semantic category.

<table>
<thead>
<tr>
<th>Domain</th>
<th>Form</th>
<th>Construction</th>
<th>Pre-BH</th>
<th>BH</th>
<th>RH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfect/</td>
<td>wayyiqtol</td>
<td>pronoun + *q(u)tuL:INF</td>
<td>resultative &gt; perfect aspect &gt; perfective aspect</td>
<td>past tense (obsolete)</td>
<td></td>
</tr>
<tr>
<td>Perfective/Past</td>
<td>qatal</td>
<td>*qatil + pronoun</td>
<td>resultative &gt; perfect aspect</td>
<td>perfective aspect</td>
<td>past tense</td>
</tr>
<tr>
<td>Progressive/</td>
<td>yiqtol</td>
<td>pronoun + *q(u)tuL:INF + locative u</td>
<td>progressive aspect</td>
<td>imperfective aspect</td>
<td>future tense⁹⁰</td>
</tr>
<tr>
<td>Imperfective</td>
<td>qotel</td>
<td>*qätāl</td>
<td>progressive aspect</td>
<td>= present tense⁹¹</td>
<td></td>
</tr>
<tr>
<td>Deontic Modality</td>
<td>Imperative</td>
<td>*q(u)tuL</td>
<td>deontic modality (mainly directive)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jussive</td>
<td>pronoun + *q(u)tuL:IMPV</td>
<td>deontic modality</td>
<td>(not distinguish-ed from yiqtol)</td>
<td></td>
</tr>
</tbody>
</table>

In both the perfect/perfective/past and progressive/imperfective domains, the effects of the

---

⁹⁰The semantics of *yiqtol* in RH are complicated because of the falling together of the form with the deontic modals, the development of a periphrastic future (i.e., *ʿāḏīd l-INF*), and the more frequent use of progressive *qotel* in future expressions (Pérez Fernández 1997:109; 137–38). Hence, the future meaning of *yiqtol* in RH is restricted to subordinate structures (like some colloquial Arabic dialects; see Bybee, Perkins, and Pagliuca 1994:233–34); in independent clauses *yiqtol*’s deontic modal sense predominates (so Sharvit 1980:lxii; Kutscher 1982:131; see Pérez Fernández 1997:108, 123–26).

⁹¹Although *qotel* continued to be an intermediate progressive form in RH (see note 83), in the newly developed tense system it supplanted *yiqtol*, becoming the preferred form for present time expressions, much as the progressive is preferred in Present-Day English (*I am walking* vs. *I walk*) (see Pérez Fernández 1997:137–38).
cyclical grammaticalization process are evident. Both wayyiqtol and qatal developed along the same path but began their development at different times, thus resulting in semantic overlap in the BH stage and the obsolescence of the older wayyiqtol in the post-BH stage. Similarly, yiqtol and qotel developed along the progressive/imperfective path and the latter eventually displaced the former in past and present progressive expressions. No clear development can be discerned in the modal forms.

At another level, a shift can be seen in Hebrew from an aspectual system to a tensed system. Various indicators of this shift have been noted in the preceding discussion such as the interaction of qatal with stative predicates in BH and RH (see 3.3.3.1), and the closed class of verby adjectives and the open class of nouny adjectives (see 3.3.5).

3.4.2 Semantics of the BHVS

The preceding study has identified a basic or marked meaning for each verb form in the BHVS as well as secondary foci or meanings for each form. The distinctive feature in this analysis is that overlapping meanings between forms are tolerated. The overlaps in the system are made manifest by the vendiagram in figure 3.15 (next page).

The overlap seen in this model is accounted for within a grammaticalization approach:

Typically, grammaticalization does not result in the filling of any obvious functional gap. On the contrary, the forms that have been grammaticalized compete with existing constructions so similar in function that any explanation involving ‘filling a gap’ seems out of the question—there is no

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92French and German provide interesting parallels to the grammaticalization relationship between qatal and wayyiqtol in BH. In German, the Perfect form (e.g., Ich habe geschrieben) may be freely used interchangeably with the Simple Past form (e.g., Ich schrieb) with the sense of the English Simple past (i.e., I wrote), but also expresses perfect aspect (i.e., I have written). The French Passé Simple (e.g., j’écrivis) has become a literary tense, and the Passé Compose (e.g., j’ai écrit) expresses both a perfect or simple past sense in spoken discourse (i.e., I have written ~ I wrote).
obvious gap to be filled. . . . During any phase of coexistence there are some contexts in which the two (or more) types in question involve a clear pragmatic difference. There are other contexts in which the choice between them is less clear with respect to pragmatic difference. (Hopper and Traugott 1993:125)

**Figure 3.15.** A semantic model of the BHVS based on a grammaticalization approach.

However, the present study thus far has only provided a semantic analysis of the system. A pragmatic analysis, while likely incapable of disambiguating all of the overlapping functions among verb forms, will yield important insights into the use of multiple forms within common semantic domains. Chapter four presents such an analysis, focusing particularly on the discourse-
pragmatic distinction between the waw-prefixed forms (wayyiqtol and weqatal) and their non-waw-prefixed counterparts (qatal and yiqtol, respectively) in prose.

**Excursus: Word Order in BH**

Attention to word order with respect to the verbal system has grown. Several tense theories surveyed in chapter two capitalized on the issue of word order to explain the alternation of waw-prefixed and non-waw-prefixed verb forms (see 2.4.3). Several recent theories have incorporated word order distinctions (see 2.6.2, 2.7.1.3–4). The claim made here is that there is a fundamental word order distinction between modal and indicative clauses in BH. This claim is outlined here but space precludes a detailed argumentation of the view (for further discussion see Holmstedt 2001, in preparation).

More than thirty years ago H. B. Rosén drew attention to the fact that modal verbs always head their clause in contrast to indicative forms (1969). Revell (1989) reiterated Rosén’s observations and his student Ahouva Shulman (1996) has gathered data from the primary history (Genesis–2 Kings) demonstrating the phenomenon: in 94–97 percent of the cases, the Imperative (1454 out of 1515), Jussive (96 out of 102), and Cohortative (192 out of 197) occur in initial position in their clause (1996:241, 246, 248).

The rudimentary claims of Rosén, Revell, and Shulman require refinement (cf. DeCaen 1995). The claim presented here is three-part: (1) BH has a default VS order in modal verbal clauses; (2) BH has a default SV order in indicative main verbal clauses; (3) BH indicative clauses have “triggered inversion” to a VS order after certain function verbs (see Shlonsky 1997:148, on triggered inversion): 'az, (b')tērem, l'mā'an, pen, 'im, 'ūlay, lū, hāʾINT, lāmmā, kī, 'āser, the
function word in the waC- prefix on wayyiqtol (see Holmstedt 2001). By ‘default’ is meant that these are the word orders found in the “least pragmatically marked” examples of these types of clauses (see Mithun 1992:15). By stating the claim in this manner, pragmatically motivated exceptions to these basic word orders are allowed. Examples of these default word orders are given in [3.72a–c].

[3.72]  a. wiḥî ʾēlōhim ′immāk (VS-modal) and-be:JUSS:3MS God with-you
   ‘And may God be with you.’ (Exod 18.19)

b. wĒdāwīd bāraḥ (SV-indicative) and-david flee:QTL:3MS
   ‘And David fled.’ (1 Sam 19.18)

c. wēhāʿām lōʾ yādaʾ [kī hālak yōnātān] (kī-VS-triggered inversion) and-the-people not know:QTL:3MS that walk:QTL:3MS Jonathan
   ‘And the people did not know [that Jonathan had walked].’ (1 Sam 14.3)

Anna Siewierska lists examples of word order variations motivated by sentence type, transitivity, finiteness, and TAM (1988:88–97). Some of the types of word order distinctions she lists are somewhat analogous to the distinctions in the BHVS. For instance, German features the verb in second position in main clauses versus final position in subordinated clauses, as illustrated in [3.73a–b] (1988:90).

   I think it will so be
   ‘I think it will be so.’

b. Ich denke, dass es so werden wird
   I think that it so be will
   ‘I think that it will be so.’

A second case is the SOV Basque language, in which imperative clauses have an obligatory VO ordering, in contrast to the more flexible word order in other clauses (1988:93). Similarly, in BH modal clauses have an obligatory VS ordering, which is only rarely cancelled for pragmatic
reasons (e.g., Gen 44.33); by contrast, indicative clauses default for SV order, but are often altered through triggered inversion or for pragmatic reasons. In order to fully establish the word order claims outlined here the pragmatic alterations of the default word orders must be adequately explained.
4 THE SEMANTICS OF DISCOURSE-PRAGMATICS

This chapter extends the analysis of the BHVS developed in chapter three to the level of discourse. Discourse analyses of TAM already have been discussed in chapters one and two (1.6 and 2.6); however, only a preliminary critique was given there. Therefore, this chapter begins with a critique of discourse approaches to TAM—both generally, and specifically with regard to TAM in the BHVS (4.1).

Following this critique, the concepts of temporal succession\(^1\) and foreground-background are examined based on the preliminary discussions in chapters one and three (1.6; 3.1). Both of these parameters are commonly associated with the waw-prefixed verb forms (wayyiqtol and weqatal) (see chap. two). Thus, with these concepts clearly defined, the remainder of this chapter examines the waw-prefixed forms with respect to these parameters. This analysis will shed light on the semantic overlap of the waw-prefixed forms with the non–waw-prefixed forms (esp. wayyiqtol and qatal) and demonstrate the importance of semantic explanations of discourse observations.

4.1 THE PROBLEMS WITH DISCOURSE APPROACHES TO VERBS

The discourse approaches discussed in previous chapters (1.6, 2.6) all take a similar tack to TAM in verbs—they either eschew the semantic component or downplay its contribution to the

---

\(^1\)Many Hebraists use the term *sequentiality* in reference to the phenomenon labeled *temporal succession* here (see 2.7.2). The term *sequentiality* is avoided here because it is misleading; linguists generally used this term in reference to morphologically under-specified verb forms in syntactic chains (e.g., Marchese 1988).
function of verb forms. Weinrich, for instance, claims that the significance of verbal forms is to provide a preliminary sorting (“Vorsortierung”) of the world of discourse for the speaker and listener (1994:30). Similarly, Longacre claims that verbal forms are “most surely and concretely described” in terms of their saliency levels in different types of discourse (1989:59). Niccacci and Talstra offer more nuanced statements: observing that traditional sentence-level grammar alone cannot address the issue of the interaction of verbal forms in discourse, Niccacci claims that a discourse approach “is a necessary, even indispensable, starting point” in the study of Hebrew discourse (1994b:118); Talstra states that while one should “remain open to the possibility of relating text-level [discourse] and clause-level [semantics] categories,” discourse concerns must be given priority (1997:85–86).

Thus, in the opinion of discourse analysts, the discourse-pragmatic functions that may be correlated with verbal forms are of primary importance in understanding a verbal system. This approach creates three methodological problems. First, discourse studies have been criticized for too quickly making the leap from correlation to causation. Pamala Downing cautions that “when particular language structures are used in particular discourse contexts, say, . . . in a passage devoted to storyline development, it is sometimes difficult to determine whether the relationship between the linguistic form and the discourse factor is causal or merely correlational” (Downing 1995:6; see also Tomlin 1995:545).

The blurring of this line between correlation and causation is evident in some of Paul Hopper’s discussions (see 1.6.1). In his examination of aspect and the foreground-background discourse distinction, Hopper concludes from the strong correlation between foregrounding and perfectivity that the primary function of perfectivity is to foreground events in discourse
The examination of foregrounding and movement of reference time below (4.2)
makes it clear, however, that perfectivity is only one of many features that contribute to
foregrounding events. Slightly differently, Hopper and Thompson claim that frequent
employment of transitive constructions in the foreground of discourse contributes to transitivity’s
“grammatical and semantic prominence” (1980:251). However, DeLancy demurs, claiming that
the explanation of transitivity should be semantic rather than discourse-pragmatic (1987:54).

Second, without a semantic component, discourse-pragmatic claims about verbs are often
circular; there is no objective means by which to support or contest such claims. For instance,
Hatav observes an inherent circularity in Longacre’s dynamic verb rankings. She states that “the
main difficulty with this notion [of dynamic verb ranking] is that it is not defined by objective
metalinguistic means, which results in a circular claim (wayyiqtol is a dynamic form because the
situation it denotes is dynamic, and the situation is dynamic because it is denoted by a dynamic
form)” (1997:21; quoted in 2.6.1). Bache has leveled a similar criticism at Weinrich’s discourse
approach to European languages: “First of all, the fact that the theory is ‘unassailable’ (to use
Weinrich’s own word) makes it rather suspicious. As the saying goes: a theory which cannot be
mortally endangered cannot be alive. As it stands, Weinrich’s theory fails to offer the rigid set
of criteria for determining the validity of its own claims which one would expect of an
‘unassailable’ theory. It simply relies on our intuitive ability to tell discursive communication
from narrative communication (of course, independently of tense choice since otherwise the
‘unassailable’ theory is circular).” (1985:22).

Third, and perhaps the underlying problem with discourse analyses of verbal systems, is that
they present (explicitly or implicitly) their discourse-pragmatic explanations as suitable
alternatives to semantic ones. For instance, many biblical scholars are content with identifying *wayyiqtol* as a sequential narrative form without examining a possible semantic motivation for its narrative use (see 2.7.2). However, this is an insufficient substitute for a semantic explanation since one presumes that verb forms generally mean something apart from their discourse context. An extreme example is Baayen’s treatment of *qatal*: “I will argue that *qāṭal* form has no intrinsic semantic value and that it serves a pragmatic function only” (1997:245). Comrie has written a brief article claiming that semantics and discourse function are distinct, though related, issues. He complains that discourse linguists have confused the two. His concluding thoughts are worth quoting in full.

I believe that this is an important result [i.e., the distinctness of meaning and discourse function]. At present there is considerable controversy surrounding the relationship between language structure and discourse, with those at one extreme denying any relevance of discourse to studies of language structure (e.g. many formal grammarians) and those at the other extreme attempting to reduce the whole of language structure to discourse factors. While I would not deny that there may be some linguistic items whose meaning is reducible to discourse function, my experience is that there is a wide range of linguistic items for which this is definitely not the case.

With regard specifically to tense, we have for instance the study by Weinrich (1964), which argues for a discourse-based approach to tense, based on the crucial distinction between narration and discussion. I have learned much about the discourse function of tenses, and even about the meaning of tenses, from such works, and from my own studies of how tenses function in discourse. But in nearly every case my conviction remains that the meaning of a tense is independent of its discourse function in any particular context, while the discourse function does depend on the meaning (and also of course, on certain features of the context). More generally, while the study of tenses in discourse is an important methodological aid in coming towards an understanding of the meaning of a tense, a full understanding of the discourse function of a tense has as one of its prerequisites a solid accounting of the meaning of that tense. (1986:21)

In other words, discourse approaches to verbs make valid and helpful *observations* about how verbs function in discourse; however, their *explanations* are inherently circular because of their self-imposed limitation to the realm of discourse-pragmatics. Therefore, I align myself with Suzanne Fleischman on the relationship between semantics and discourse-pragmatics of verbal systems: “The pragmatic *functions* of tense-aspect categories in narrative are not arbitrary; rather,
I see them as motivated extensions of the *meanings* of those categories, extensions that, according to the view of grammar as ‘emergent’ (Hopper 1987) may ultimately contribute to a reshaping of the basic meanings” (1990:23; see also Comrie 1985:26–29).

Although the preceding critique of discourse analysis may appear harsh, it is not intended to be dismissive of the discipline. Discourse analyses furnish important, even necessary, observations regarding the use of verb forms as a *system* in discourse. In particular, discourse analysis often provides a means of distinguishing verb forms that appear to be synonymous based on a semantic analysis alone, since such semantically overlapping forms may contrast in certain discourse contexts (so Hopper and Traugott 1993:125).

Nevertheless, the argument here is that discourse analysis is only valuable when it used in conjunction with a semantic analysis, because the discourse functions of verb forms are not unrelated to their semantics (see Fleischman, quoted above). By combining semantics and discourse-pragmatics in this way (i.e., semantic analysis first, discourse analysis second), the problems of discourse analyses that eschew semantics are avoided, and our understanding of verbal systems is maximized.

### 4.2 *Some Elements of Narrative Structure*

The concept of temporal succession and concept of foreground-background and have both been identified as fundamental to narrative discourse (Labov 1972:360; Reinhart 1984:787). However, important questions have been raised about each of these concepts. Discussion of temporal succession has centered around the question of how to define it and what semantic factor(s) affect temporal succession (e.g., situation aspect, viewpoint aspect, transitivity; see
1.6.2. Complicating the issue is the fact that linguists often fail to distinguish foreground and temporal succession, or they explicitly equate the two (e.g., Dry 1983:48; Reinhart 1984:782). The equation of temporal succession and foreground-background, however, has been called into question (Thompson 1987).

With respect to foreground-background, some linguists have criticized that the distinction is too intuitive to be useful. Thus, in an attempt to elucidate the foreground-background concept, numerous descriptive labels have been offered for each (e.g., foreground has been labeled ‘skeleton,’ ‘main line,’ ‘central,’ ‘highlighted,’ ‘new information,’ and ‘gist’; and background has been labeled ‘old information,’ ‘presupposition,’ and ‘non-sequential’)(see Givón 1987:176–77; Wald 1987:486). The following sections (4.2.1–3), therefore, distinguish and define the concepts of temporal succession and foreground-background as a foundation for the study of the waw-prefixed BH verb forms, which have been associated with both of these concepts.

**4.2.1 Temporal Succession**

Temporal succession is the natural or default interpretation of a text, whereby, in the absence of any indicators to the contrary, the first-mentioned event is understood as occurring first, the second-mentioned event second, and so on (see Brown and Yule 1983:125, 144). In other words, the linear ordering of events in texts is implicitly understood to mirror the order of their occurrence in the depicted world (Reinhart 1984:780). Fleischman, therefore, describes temporal succession as *diagrammatically iconic*: “An iconic diagram is a systematic arrangement of signs, none of which necessarily resembles its referent in respect to any prominent characteristic, as in the case with an iconic image; rather, it is the relationship of the signs to one another that mirrors
the relationships of their referents” (1990:131; see Hopper and Traugott 1993:26). We can illustrate the diagrammatic iconicity of temporal succession with the contrasting examples in [4.1]. In [4.1a] the events are diagrammatically iconic (i.e., temporally successive), whereas temporal succession is avoided in [4.1b] through the use of the Past Perfect forms *(had bought, had asked)* and subordination *(when . . ., riding . . .)*.

[4.1]  a. Jared bought a scooter  
    and he rode it up and down the street;  
    and Colin saw him  
    and he asked to borrow it,  
    and Jared lent Colin his scooter.  

    b. Jared lent Colin his scooter.  
    Jared had bought a scooter  
    and Colin had asked to borrow it  
    when he saw him  
    riding it up and down the street.

William Labov defines a narrative text as “a sequence of two clauses which are temporally ordered: that is, a change in their order will result in a change in the temporal sequence of the original interpretation” (1972:360). Thus, clauses that are in temporal succession have what we will call the *irreversibility property*: given clauses A and B, AB ≠ BA. Clauses that have the irreversibility property can often be described as conjoined with an asymmetric *and*, equivalent to ‘and then’ (Lakoff 1971:126–31). Thus, notice that the sentence in [4.2a] has a different interpretation when the order of clauses is reversed as in [4.2b].

[4.2]  a. Tage drank his milk *and* went to bed.  

    b. Tage went to bed *and* drank his milk.

Linguists have proposed various theories to explain the semantic factors in temporal succession, some of which have been surveyed in chapter one (1.6.2). Early theories identified either viewpoint aspect (e.g., Kamp and Rohrer 1983) or situation aspect (e.g., Dry 1981; Heinrichs 1986) as the sole determining element in temporal succession. According to the
viewpoint aspect theory of Kamp and Rohrer, events presented with perfective aspect advance
the reference time (i.e., are temporally successive), whereas events presented with imperfective
do not advance the reference time (1983). Helen Dry’s situation aspect approach was just as
simplistic: accomplishments and achievements move narrative time (i.e., are temporally
successive), whereas states and activities do not (1981).

Ter Meulen (1997) and Hatav (1989) present two attempts to refine these early approaches
to temporal succession (see 1.6.2). Using the metaphoric labels ‘hole,’ ‘filter,’ and ‘plug,’ ter
Meulen claims, in agreement with earlier studies, that states and activities do not advance the
reference time (‘hole’), allowing a subsequent event to be interpreted as “a temporal part of that
[preceding] event,” whereas achievements always advance reference time (‘plug’). In contrast
to earlier theories, however, ter Meulen characterizes accomplishments as a ‘filter,’ which can
be interpreted as either advancing (‘plug’) or not advancing (‘hole’) the reference time based on

Hatav makes an important departure from earlier studies by arguing that any situation aspect
may advance reference time when it occurs with a perfective viewpoint and/or temporal adverbial
modifiers, both of which semantically assert the endpoints of the event (i.e., the event is bounded;
see 3.1.3.2) (1989:499). Hatav’s claim that all four Vendlerian situation types may advance
reference time under certain circumstances is demonstrated by the discourse in [4.3], in which
the endpoints of each event are semantically asserted through the combination of a perfective
viewpoint and either a [+telic] situation (i.e., achievement or accomplishment) or a temporal
adverbial modifier (for a while, for a few minutes).
Evan walked around for a while (ACT), found his blanket (ACH), and was happy for a few minutes (STA), then he angrily toppled Tage’s tower of blocks (ACC).

As observed by Hatav, the issue of temporal succession, or the movement of the reference time, is actually reducible to a single parameter, (un)boundedness (see 3.1.3.2): bounded events are temporally successive (i.e., advance the reference time); unbounded events are not (1989:493). As mentioned in chapter three (3.1.3.2), (un)boundedness relates most directly to the subinterval property, which can be used as a test for (un)boundedness: unbounded situations have the subinterval property; bounded situations lack the property (see Smith 1999:486–88). However, further examination is called for with respect to how (un)boundedness is affected not only by situation aspect, viewpoint aspect, and temporal adverbial modification, but also by discourse-pragmatics and real world knowledge.

Rather than restate the discussion from chapter three (3.1.2–3), the analysis of temporal succession and (un)boundedness here presupposes the conclusions of the earlier discussion. The two strongest factors that determine (un)boundedness are imperfective aspect and temporal adverbial modification. Events expressed with an imperfective viewpoint are always unbounded and have the subinterval property (e.g., if Colin is sleeping is true at \( I_1 \), then it is true at any subinterval of \( I_1 \); or, in terms of the imperfective paradox, if Colin is sleeping then Colin slept), because the imperfective aspect deprives situations of their natural endpoints (see 3.1.3.2). By contrast, various forms of temporal adverbial modification (e.g., three times, from 10 a.m. to noon, for three hours, etc.) semantically assert endpoints, so that even situations that lack a natural final endpoint ([+telic]) are bounded (e.g., Jared danced three times). The contradictory effects of imperfective aspect and temporal adverbial modification render them incompatible.
(e.g., **Jared was dancing three times**). Thus, we can agree with part of Kamp and Rohrer’s conclusion, namely, that imperfective aspect does advance the reference time.

By contrast, the correlation between (un)boundedness and **perfective aspect** is not as direct, but also depends upon **situation aspect** and **context**. First, **achievements** and **accomplishments** with perfective viewpoint are always bounded, because the perfective viewpoint includes an entire interval of the situation, which by definition includes the [telic] endpoint of achievements and accomplishments (see 3.1.3.2). Second, **states** with **perfective viewpoint** (if the combination is allowed; see Bybee, Perkins, and Pagliuca 1994:92; Comrie 1976:50), express unbounded states, and thus do not advance the reference time. As illustrated in [4.3] above, temporal adverbial modification is necessary in addition to the perfective viewpoint in order to advance the reference time with states. The only exception to this is when states are treated as inchoative, in which case they behave as activities. Third, as discussed in chapter three (3.1.3.2), the **perfective viewpoint** gives implicit temporal bounds to **activities**. In other words, depending on the context, the activity may be implied as bounded by the perfective viewpoint or extending beyond it, and thus overlapping to some degree with other events, as illustrated in [4.4].

[4.4] Tage played (ACT) with his toys, . . . and ate (ACC) his cookie. (unbounded interpretation) and fell sleep (ACH). (bounded interpretation)

Two other factors affecting temporal succession should be mentioned. The first is subordination, whereby temporal succession is explicitly canceled through syntactic rather than semantic means (e.g., **Evan cried when he went to bed**) (see Heinrich 1986). The second is discourse-pragmatic, whereby an accomplishment which is bounded may nevertheless be interpreted as comprising subevents. This is illustrated by [4.5], in which the accomplishment **Bill built a house** is understood as consisting of the subsequently listed events.
David Dowty observes that the structure of accomplishments is such that they always allow the inference of “temporally included subevents” (1986:43); similarly, ter Meulen labels accomplishments ‘filters’ to describe the contextually determined choice between a temporally successive interpretation and one in which the following events are understood as temporally included in the accomplishment. However, the interpretation of accomplishments with respect to temporally included subevents is based on pragmatic implicature; it is not semantic, since the accomplishment is still properly bounded, as in [4.5]. In such cases, the accomplishment may perhaps be best characterized as the “discourse topic” (see Brown and Yule 1983:71–83).

Thus, in example [4.6] the accomplishment he did what was upright is interpreted as consisting of several subsequently reported events: removing the high places, shattering the standing stones, cutting down the Asherah, and smashing the bronze serpent. Knowledge about the nature of an event like he did what was upright (i.e., complex) and the subsequent events as being considered “upright” in the discourse context lead to the implicational reading that the latter events comprise the former.

```
[4.6]  `And he did (WAYY:3MS) what was upright in the eyes of Yhwh, according to all which David his father had done (QTL:3MS). He removed (QTL:3MS) the high places, and he shattered (QTL:3MS) the standing stones and he cut down (QTL:3MS) the Asherah and he smashed (QTL:3MS) the bronze serpent which Moses had made (QTL:3MS).’ (2 Kgs 18.3–4)
```
scholars working on BH narrative, state the distinction as self-evident. DeLancy observes that some factors contributing to the foreground-background distinction are “psychological rather than purely linguistic” (1987:65). Similarly, Mary Erbaugh has produced psycholinguistic evidence of the universality of foreground-background in oral narratives (1987). Appropriately then, Tanya Reinhart draws on Gestalt theory to demonstrate the psychological reality of foreground-background in discourse (1984); the key conclusions from her study are summarized here.

As already mentioned in chapter three, space has long been used as a metaphor for time (3.1.1), as demonstrated by the many temporal concepts that have developed from spatial ones (e.g., before, expressing the spatial idea, is metaphorically extended to express the temporal idea of priority) (Heine, Claudi, and Hünnemeyer 1991:48). Because of this metaphorical relationship between space and time, examination of key principles in Gestalt psychology are particularly enlightening both as to the reality and character of the temporal foreground-background distinction (on Gestalt theory see chap. 3, n.6). Reinhart claims that the foreground-background distinction “is a cardinal principle of the organization of narrative texts,” and goes on to argue that this distinction “reflects principles of the spatial organization of the visual field”: foreground-background in narrative is analogous with figure-ground in Gestalt theory (1984:787).

To explain the similarity between foreground-background and figure-ground, consider figure 4.1. The figure is more readily perceived as a square lying on a rectangle than a rectangle with a square hole in it. Thus, the square is the figure, the rectangle the ground.

**Figure 4.1.** Principle of one-sided contour (adapted from Reinhart 1984:788).
Figure 4.1 illustrates the gestalt principle of the one-sided function of contour: “the contour shapes its inside, not its outside” (Koffka 1935:181). In other words, the lines of the square more readily define the inside figure as a square, than the outside figure as a rectangle with a hole. The prominence of foregrounded events, in contrast to backgrounded events, is analogous with the prominence of figure over ground, explained by this gestalt principle (Reinhart 1984:803).

Another important analogy between spatial ground and temporal background is that they are both assumed to continue underneath the figure (spatially) or concurrently with the foregrounded event (temporally) even though they are not explicitly seen or depicted (Dowty 1986:59). Reinhart explains that if we imagine figure 4.1 as a square book lying on a rectangular table, we would assume the table top continues behind the book (1984:787–88).

Reinhart proceeds from her analogy between foreground-background and figure-ground to apply the four specific principles in of the figure-ground relationship by analogy to foreground-background, as shown in table 4.1.

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Figure-Ground</strong></td>
</tr>
<tr>
<td>1. Law of functional dependency: the figure depends for its characteristics upon the ground on which it appears. The ground serves as a <em>framework</em> in which the figure is suspended and thereby it appears (Koffka 1935:184)</td>
</tr>
<tr>
<td>2. Law of good continuation: shapes with continuous lines are more easily perceived (i.e., will be the figure) than those with broken lines (e.g., circle as opposed to triangle) (Koffka 1935:151–53).</td>
</tr>
<tr>
<td>3. Law of proximity: lines with greater proximity will be treated as units organized into higher units (i.e., as figures against a ground) (Koffka 1935:164–65).</td>
</tr>
<tr>
<td>4. Law of closure: enclosed areas will be treated as units organized into higher units (i.e., as figures against a ground) (Koffka 1935:167–68).</td>
</tr>
</tbody>
</table>

²This statement of this principle departs from Reinhart, who claims that only temporally successive events are candidates for foreground (1984:801); I take issue with that claim below, 4.2.3.
Functional dependency is illustrated by the shapes in figures 4.2 and 4.3, in which the figure is characterized as square or diamond depending upon the orientation of the rectangular ground (Koffka 1935:185; Reinhart 1984:789).

**Figure 4.2.** Diamond figure (adapted from Koffka 1935:185; Reinhart 1984:789).

**Figure 4.3.** Square figure (adapted from Koffka 1935:185; Reinhart 1984:789).

Functional dependency with respect to the foreground-background relationship explains why the intuitive notion of foreground as the ‘gist’ of a discourse fails: one cannot simply remove the backgrounded events since they are functionally interdependent with the foregrounded events, just as the figure is functionally interdependent with the ground.

The law of good continuation is illustrated by figure 4.4. The pattern of a single white horizontal stripe crossing over top of two black stripes is more easily perceived than four black boxes, because the white stripe is the more continuous part of the figure (see Reinhart 1984:803, for other illustrations). Analogously, foregrounded events, which default for temporal succession, are more prominent in discourse because of their temporal continuity (Fleischman 1990:133).

**Figure 4.4.** Law of good continuation (adapted from Reinhart 1984:803).
Reinhart draws an analogy between the gestalt principle of proximity and the predominance of punctual (telic) events in the foreground of discourse. The principle is illustrated in figure 4.5, in which one more readily perceives three thin stripes or pairs of lines, with one extra line to the right, than three wide stripes or pairs of lines, with one extra line to the left. Analogously, a series of punctual events are more salient than durative events.

Figure 4.5. Principle of size and proximity (adapted from Koffka 1935:164; Reinhart 1984:804).

Finally, Reinhart connects the gestalt principle of closure with the use of perfective aspect to denote foregrounded events. This principle is illustrated in a comparison of figure 4.6 with figure 4.5 above. In figure 4.6, the effect of the brackets is to reverse the areas that were interpreted as figure and ground in figure 4.5 by enclosing the figure portion of the illustration. Similarly, where perfective aspect effects boundedness, the events are viewed as salient.

Figure 4.6. Principle of closure (adapted from Koffka 1935:168; Reinhart 1984:805).

Reinhart’s analogy between the principles of the foreground-background distinction in narrative discourse and figure-ground distinction in Gestalt theory support the psychological reality of the distinction as well as explain why certain correlations between aspect and foreground or background are regular.

4.2.3 The Relationship between Temporal Succession and Foreground

The preceding discussion (4.1.2.1–2) may give the impression that foreground is
conterminous with temporal succession. In Reinhart’s estimation the two are synonymous (see also Dry 1981:19), and she tries to support her equating of the concepts by addressing possible objections. The first objection is raised by examples like [4.7], in which the backgrounded action expressed by the subordinated clause appears to be in temporal succession with the surrounding clauses.

[4.7]  I brought Colin his helmet. When I strapped it on him, he ran out to get his bicycle.

In order to account for examples like [4.7], Reinhart distinguishes between “content criteria” and “linguistic, or sentence-level, criteria” with respect to foreground/temporal succession: while the subordinated clause is temporally successive and, therefore, foregrounded in terms of content, linguistically it is backgrounded because it is expressed by a subordinated clause (1984:797–98).

However, the definition of temporal succession given above (4.2.1) makes explanations like Reinhart’s unnecessary. It is clear that the subordinated clause does not express temporal succession since it does not have the irreversibility property: the order of the subordinated clause with its matrix clause does not affect the interpretation (i.e., *He ran out to get on his bicycle when I strapped it on him*).

The second objection Reinhart addresses is the presence of temporal succession within a backgrounded section, such as in a flashback as illustrated by [4.8].

[4.8]  Slowly in Pippin’s aching head memory pieced itself together and became separated from dream-shadows. Of course: he and Merry had run off into the woods. What had come over them? Why had they dashed off like that, taking no notice of old Strider? They had run a long way shouting—he could not remember how far or how long; and then suddenly they had crashed right into a group of Orcs: they were standing listening, and they did not appear to see Merry and Pippin until they were almost in their arms. They yelled and dozens of other goblins had sprung out of the trees. Merry and he had drawn their swords, but the Orcs did not wish to fight, and had tried only to lay hold of them, even when Merry had cut off several of their arms and hands. Good old Merry! (Tolkien 1965:58)

Reinhart asserts that there can be successive layers of the foreground-background distinction, so
that “the background itself can divide into (subsidiary) foreground and background” (1984:785).

Thus, even the flashback storyline, expressed with Past Perfect verbs in [4.8], forms a subsidiary foreground of temporally successive events within the background that is the flashback. The fact that after the initial Past Perfect (had run) the subsequent temporally successive events could have been expressed with Simple Past verbs supports the assertion that the events are foregrounded; the consistent use of Past Perfects in [4.8], however, reinforces throughout the section that the storyline is contained in a backgrounded flashback.

Treating these issues with respect to Reinhart’s equating of foreground with temporal succession serves to clarify the concepts; however, it does not demonstrate that Reinhart’s equation is correct. The parameters used to define temporal succession, on the one hand, and foreground-background, on the other, demonstrate that the concepts are indeed discrete and discontinuous. Temporal succession is a linguistic concept that can be defined logically in terms of the principle of irreversibility and (un)boundedness. It is determined by a combination of situation aspect, viewpoint aspect, subordination, and temporal adverbial modifiers. By contrast, the foreground-background distinction has been defined as a psycholinguistic concept, having to do with the comprehension of discourse. Whether events are foreground or background depends on their relative saliency, which is determined by a gestalt of features such as those listed in table 4.2 (derived from the lists in tables 1.18 and 1.22; see also Longacre’s salience parameters [1996:26]: (non)substantive, (non)narrative, (ir)realis, (non)dynamic, (non)sequential, and (non)punctiliar). While temporal succession and semantic factors contributing to temporal succession (e.g., perfectivity, telicity) are generally more salient, saliency is a broader and different sort of concept; thus, it cannot be equated with a single semantic parameter.
Table 4.2. Features of the saliency continuum (see Hopper 1979:129; Hopper and Thompson, 1980:252).

<table>
<thead>
<tr>
<th>More salient</th>
<th>Less salient</th>
</tr>
</thead>
<tbody>
<tr>
<td>temporal succession</td>
<td>temporal overlap</td>
</tr>
<tr>
<td>perfective</td>
<td>imperfective</td>
</tr>
<tr>
<td>dynamic</td>
<td>non-dynamic (descriptive)</td>
</tr>
<tr>
<td>telic</td>
<td>durative</td>
</tr>
<tr>
<td>volitional</td>
<td>non-volitional</td>
</tr>
<tr>
<td>affirmative</td>
<td>negative</td>
</tr>
<tr>
<td>realis</td>
<td>irrealis</td>
</tr>
<tr>
<td>non-anaphoric</td>
<td>anaphoric</td>
</tr>
<tr>
<td>identity of subject maintained</td>
<td>frequent change of subject</td>
</tr>
<tr>
<td>human topics</td>
<td>non-human topics</td>
</tr>
<tr>
<td>unmarked distribution of focus in clause (with presupposed subject and asserted verb)</td>
<td>marked distribution of focus (subject focus, instrument focus, or focus on sentence adverbial)</td>
</tr>
<tr>
<td>agent high in potency</td>
<td>agent low in potency</td>
</tr>
<tr>
<td>object totally affected</td>
<td>object not affected</td>
</tr>
<tr>
<td>object highly individuated</td>
<td>object non-individuated</td>
</tr>
</tbody>
</table>

4.3 The Semantics of Discourse in BH

Chapter two surveyed several theories of the BHVS that identified the waw-prefixed forms as marked for sequentiality (i.e., temporal succession) (2.7.2; see also Li 1999) or foreground (see 2.7.2.2 on Buth’s “thematic continuity” parameter). Now that we have defined and distinguished temporal succession and foreground, the question remains whether, and to what extent, certain verb forms correlate with these narrative features and whether such correlations constitute a causal connection.

In the case of temporal succession, a partial answer is readily available: neither yiqtol nor qotel can express temporal succession because of their semantics—imperfective and progressive, respectively. However, the central question to providing a complete answer is whether wayyiqtol and qatal contrast with respect to either temporal succession or foreground-background in narrative discourse, and likewise, whether weqatal and yiqtol differ similarly in predictive, procedural, and instructional discourses.
4.3.1 *Wayyiqtol in Narrative Discourse*

4.3.1.1 *Wayyiqtol and Temporal Succession*

The view that *wayyiqtol* is temporally successive is well established (Ewald 1879:18 and Driver [1892] 1998:71–72 use the term “consecutive,” while most recent theories prefer “sequential”; see 2.7.2). Nevertheless, the semantic analysis of temporal succession given above (4.2.1) refutes claims that *wayyiqtol* is the sole parameter in determining temporal succession on theoretical grounds (i.e., no single semantic parameter determines temporal succession). Empirically, the data show that *wayyiqtol* does not always coincide with temporal succession, nor is it the only form which may coincide with temporal succession.

On the one hand, the examples of *qatal* advancing the reference time, given in chapter three ([3.27]), demonstrate that temporal succession may be expressed using forms other than *wayyiqtol*. On the other hand, the examples in [4.9–12] illustrate the variety of overlap that events expressed by *wayyiqtol* may have.

> [4.9] wayyēṣ’ū ’anšê hāʾīr wayyillāhāmû ’et-yō’āb wayyippōl
> and-go-out:WAYY:3MP men.of the-city and-fight:WAYY:3MP with-Joab and-fall:WAYY:3MP
> min- hāʾām mē’abdē dāwīd wayyāmot gam ūriyyā hahitti
> from-the-people from-servants.of David and-die:WAYY:3MS also Uriah the-Hittite

> ‘And the men of the city came out and fought with Joab and some of the people of the servants of David fell and also Uriah the Hittite died.’ (2 Sam 11.17)

Because *fight* is an activity, it is only implicitly bound by *wayyiqtol* in [4.9]. The context, in which the account of fighting is followed by the report of several fight-related events, leads to the interpretation that the latter events overlap with, and are elements of, the fighting. In fact, the two fight-related events of *fall* and *die* overlap in a similar fashion: as one of David’s servants, Uriah the Hittite’s death overlaps with and is included in the falling of the people.

The example in [4.9] illustrates that activities (i.e., *fight, fell*) allow the same sort of
implicature of temporally included subevents that accomplishments allow (see [4.5–6]).

However, activities also allow more general types of overlap, as illustrated in [4.10–12].

[4.10] ṭōridēm ḏāhebēl bē’ad ḫaḥallōn ki bēṭāḥ bēqīr ḫāḥōmā
and-let-down:WAYY:3FS-them with-rope through-the-window for house-her in-wall.of-the-wall
ūbāḥōmā ḫī yōṣābet. ṭōmer lāhem ḫāḥārā
and-in-the-wall she was-living:QOT:FS and-say:WAYY:3FS to-them the-hill-country:to
lēkū pen-yiqgāyū bākem harōdā’im
go:IMPV:MP lest overtake:YQTL:3MP on-you the-pursuers:QOT:MP

‘And she let them down with a rope through the window, for her house was in the city wall and she was living in the wall; and she said to them “Go to the hill-country lest the pursuers overtake you.”’ (Josh 2.15–16)

In [4.10] the activities of letting the men down by the rope and giving them instructions are most naturally interpreted as overlapping; Rahab gives the men instructions as she makes the necessary preparations for lowering them through the window (see also Josh 8.4; 18.8).

In [4.11] real world knowledge makes it clear that Jacob did not just fall in love with Rachel, during the course of his conversation with Laban (e.g., Then Jacob fell in love with Rachel; see Hatav 1989:496); nor is it necessary to render the verb with a past perfect sense (e.g., Now Jacob had fallen in love with Rachel; see REB, NAB). Rather, in the course of his month-long stay with Laban, Jacob had fallen in love and now, where the fact is important to the story, it is reported that Jacob loved Rachel (see NJPS, NRSV).

[4.11] 14b And he stayed with him a month. 15 And Laben said to Jacob, “Because you are my kin should you therefore serve me without compensation? Tell me what your wage should be?” 16 Now Laben had two daughters. The name of the older was Leah and the name of the younger was Rachel. 17 And the eyes of Leah were soft/weak, but Rachel was lovely and beautiful. 18[Now Jacob loved Rachel; see REB, NAB]. Rather, in the course of his month-long stay with Laban, Jacob had fallen in love and now, where the fact is important to the story, it is reported that

Jacob loved Rachel (see NJPS, NRSV).

[4.12] 14b And he stayed with him a month. 15 And Laben said to Jacob, “Because you are my kin should you therefore serve me without compensation? Tell me what your wage should be?” 16 Now Laben had two daughters. The name of the older was Leah and the name of the younger was Rachel. 17 And the eyes of Leah were soft/weak, but Rachel was lovely and beautiful. 18[Now Jacob loved Rachel; see REB, NAB]. Rather, in the course of his month-long stay with Laban, Jacob had fallen in love and now, where the fact is important to the story, it is reported that Jacob loved Rachel (see NJPS, NRSV).

In [4.12], Esau’s eating and drinking are simultaneous or alternating. This simultaneous
overlap contrasts with the strict temporal succession expressed by the second two

wayyiqtols—‘and he rose and he left.’

[4.12] w'ya'āqōb nāтан lē'sāw lehem ūn'gīd 'ădāšīm wayyōkal
and-Jacob gave:QTL:3MS to-Esau bread and-stew.of lentils and-eat:WAYY:3MS
wayyešt wayyāqom wayyelek wayibez 'ēśāw
and-drink:WAYY:3MS and-rise:WAYY:3MS and-go:WAYY:3MS and-despise:WAYY:3MS Esau
'et-habb'kōrā OBJ the-birthright

‘And Jacob gave to Esau bread and lentil stew and he ate and he drank and he rose and he left and Esau despised his birthright.’ (Gen 25.34)

Finally, a different sort of overlap exists in the case of verbal hendiadys, in which the verbs refer to the same event. This type of overlap is found especially with verbs of speaking as in [4.13] (see Miller 1996:147–57 for other examples).

[4.13] waydabbēr 'ēlōhim 'el-mōšēh wayyō'mer 'ēlāyw 'ānī yhwh
and-speak:WAYY:3MS God to-Moses and-say:WAYY:3MS to-him I Yhwh

‘And God spoke to Moses and said to him, “I am Yhwh.”’ (Exod 6.2)

The most frequently cited counterexamples to the claim that wayyiqtol is marked for temporal succession are instances in which wayyiqtol appears out of sequence, expressing a past perfect meaning (see Baker 1973; Buth 1994; Collins 1995). Thus, as in [4.14], wayyiqtol forms may follow a past perfect qatal with a past perfect sense (Driver [1892] 1998:84).3

[4.14] ‘So Joash lay down (WAYY:3MS) with his fathers, and Jeroboam sat (QTL:3MS) upon his throne; and Joash was buried (WAYY:3MS) in Samaria with the kings of Israel. 14Now Elisha had become sick (QTL:3MS) with the illness of which he would die, and King Joash of Israel had gone/went down (WAYY:3MS) to him, and (had) wept (WAYY:3MS) before him, and (had) said, (WAYY:3MS) “My father, my father! The chariots of Israel and its horsemen!” 15And Elisha (had) said (WAYY:3MS) to him, “Take (IMPV:MS) a bow and arrows”; so he had taken/took (WAYY:3MS) a bow and arrows. 16And he (had) said (WAYY:3MS) to the king of Israel, “Grasp (IMPV:MS) the bow”; and he (had) grasped (WAYY:3MS) it. And Elisha (had) laid (WAYY:3MS) his hands on the king’s hands. 17And he (had) said, (WAYY:3MS) “Open (IMPV:MS) the window eastward”; and he (had) opened (WAYY:3MS) (it). And Elisha (had) said (WAYY:3MS), “Shoot” (IMPV:MS); and he (had) shot (WAYY:3MS). And he (had) said (WAYY:3MS), “The Lord’s arrow of victory and the arrow of victory over Aram! For you should fight (QTL:2MS) the Arameans in Aphek until (you) make an end (INF) (of them).” 19And he (had) said (WAYY:3MS), “Take (IMPV:MS) the arrows”; and he had taken/took (WAYY:3MS) (them). And he

3Other examples like [4.14] are Josh 13.8–33; 2 Kgs 7.6–7, 15–20 (see Baker 1973:23–53 for more examples).
(had) said (wayy:3ms) to the king of Israel, “Strike (impv:ms) the ground”; and he (had) struck (wayy:3ms) three times, and (had) stopped (wayy:3ms). 19 And the man of God had become/ become angry (wayy:3ms) with him, and (had) said (wayy:3ms), “(You should have) struck (inf) five or six times; then you would have struck (qtl:2ms) Aram until (you) made an end (inf) (of it), but now you will strike (yqtl:2ms) Aram only three times.” 20 And Elisha (had) died (wayy:3ms) and they (had) buried him (wayy:3ms).’ (2 Kgs 13.13–20)

Notice, however, that in English the use of Past Perfect to translate the wayyiqtol forms is not obligatory; the initial Past Perfect translation of qatal (had become sick) marks the following events as a flashback storyline. The case in BH is similar: the initial past perfect is signaled semantically by the perfective qatal ลำ (‘he had become sick’); the wayyiqtol verbs form a flashback storyline, which, by pragmatic implicature, expresses past perfect (see 3.3.4.4).

There are other instances in which a flashback storyline expressed by wayyiqtols is signaled by a temporal protasis instead of a past perfect qatal (e.g., Gen 19.28–29; 2 Sam 4.4; 1 Kgs 11.15–22). The exigencies of linearly recounting two parallel storylines (such as overlapping reigns of kings in 2 Kgs 14.1–16) also implicates a past perfect sense for wayyiqtol forms. Both these cases are illustrated by the passage in [4.15] (see Talmon 1978).

[4.15] **Storyline 1:** And when (wayhi) many days (passed) then the word of Yhwh came (qtl:3ms) to Elijah, in the third year (of the drought), saying, “Go (impv:ms) present yourself (impv:ms) to Ahab and I will send (yqtl:1s) rain on face of the land.” 2 And Elijah went (wayy:3ms) to present himself (inf) to Ahab.

**Storyline 2:** Now the famine was severe (qtl:3ms) in Samaria. 3 And Ahab summoned (wayy:3ms) Obadiah, who was in charge of the palace.

**Background:** Now Obadiah greatly feared (qtl:3ms) Yhwh, 4 and when Jezebel was killing (wayhi b‘hakrit:inf) the prophets of Yhwh, Obadiah took (wayy:3ms) a hundred prophets and hid them (wayy:3ms) fifty men in (each) cave, and sustained them (qtl:3ms) with bread and water.

**Storyline 2 (con’t):** 5 And Ahab said (wayy:3ms) to Obadiah, “Go (impv:2ms) through the land to all the springs of water and to all the wadis; perhaps we will find (yqtl:1p) grass and keep the horses and mules alive (wqtl:1p), and we will not have to destroy (yqtl:1p) some of the animals.” (1 Kgs 18.1–5)

The excerpt in [4.15] reports two concurrent storylines that eventually converge in the discourse: Elijah going to appear before Ahab (vs. 1–2); and Ahab and his servant Obadiah going out to look for pasture land (vs. 3, 5–6). Within the second storyline Obadiah’s pious character is described
in terms of his meritorious past actions for God’s prophets (vs. 4). This background, however, is set off from the storyline by a temporal phrase (wayhî b’hakrît). 4

Finally, Buth discusses examples of “temporal overlay,” in which an interrupted storyline is picked up again by verbal repetition or anaphoric reference to the last reported event in the storyline (1994:142–43; see Talmon 1978). To the example of Leviticus 6.6–11, which Buth cites, we may add 1 Samuel 14.1–6; 2 Samuel 13.29–34; 1 Kings 22.35–37 as examples of such temporal overlay, the last of which is given in [4.16]. However, a past perfect sense is not generally required in such instances (e.g., 2 Sam 13.34 in NRSV).

In summary, a past perfect sense may be attributed to wayyiqtol verb forms by means of a leading past perfect qatal, a temporal protasis, or anaphor, all signaling a break in the default interpretation of the clauses as temporally successive. 5 The past perfect sense, however, is an

[4.16] ‘And the battle increased (WAYY:3FS) that day and the king was (QTL:3MS) propped up (QOT:MS) in the chariot opposite Aram, and he died (WAYY:3MS) and the blood of the wound poured (WAYY:3MS) into the bottom of the chariot. 47 And the cry passed through (WAYY:3MS) the camp when the sun went (down) (INF) saying, “Each man to his city and each man to his country!” 48 And (so) the king died (WAYY:3MS) and he came (WAYY:3MS) to Samaria and they buried (WAYY:3MS) the king in Samaria.’ (1 Kgs 22.35–37)

The case of the verb ‘to be’ (hâyâ) in wayyiqtol (wayhî) is a special case, as the verb ‘to be’ in many languages (so Longacre 1989:66 points out). In BH the form is frequently a partially grammaticalized discourse particle that serves to introduce temporal protases (often followed by a preposition b‘- ‘in’/k‘ as’ prefixed to the infinitive), the apodosis of which is often a wayyiqtol form (e.g., Gen 19.29; 2 Sam 11.16; see Ruth 1.1 where the first wayhî is a discourse particle and the second the main verb, contra van der Merwe 1999:95). Evidence that wayhî was not considered a full verb form is found in the fact that the in Chronicles the wayhî is often omitted from passages where it appears in the parallel in Genesis–Kings (1 Kgs 8.54 // 2 Chr 7.1; 2 Kgs 12.11 // 2 Chr 24.11; 2 Kgs 22.3 // 2 Chr 34.8) (Polzin 1976:57–58). The verb ‘to be’ (hâyâ) in modal qatal (w’hâyâ) functions similarly (e.g., Exod 33.22), though there are more exceptions to this pattern (see Longacre 1994:84–91). The origin of these partially grammaticalized forms is uncertain, though the modal perfect w’hâyâ more naturally functions as a temporal protasis than does wayyiqtol wayhî. One might even argue that w’hâyâ is not actually grammaticalized as is the case for wayhî.

5Shemaryahu Talmon posits three categories into which most of the examples discussed here may be placed: “Cases of complete or almost complete concurrence within a restricted frame of time will be considered under the heading of ‘simultaneity’ [e.g., [4.12] above]; where a more extensive time element is involved which necessarily results in only partial overlapping, ‘contemporaneity’ will be used [e.g., [4.14] above]; ‘synchronicity’ will refer to
implicature; the past tense wayyiqtol does not semantically express perfect aspect (just as the English Simple Past may follow a Past Perfect with an implied continuation of the past perfect meaning).

Some of the other examples of past perfect wayyiqtol offered by Baker (1973; Buth 1994 and Collins 1995 cite a few other examples) have been misconstrued: the wayyiqtol forms actually express temporal succession (e.g., Gen 2.19; 29.12; Exod 2.10; 14.8; 1 Sam 7.13; 9.26; 2 Sam 12.26–29; 13.28), or perhaps have a present perfect sense (2 Kgs 6.29; see 3.3.4.4). In other cases a past perfect reading of wayyiqtol has been forced as a means of harmonizing redactional difficulties (e.g., Gen 35.7, 15; Exod 4.19; Judg 30.31–47; 2 Sam 4.3, 7; 1 Kgs 7.13). Finally, in several of Baker’s examples, the initial clause is not intended to be temporally successive with the following wayyiqtols, but introduces the discourse topic, as in [4.17], where a qatal form is used (also Num 1.47–49; Judg 11.1).

4.3.1.2 Wayyiqtol and Foreground

The claim that only wayyiqtol marks foregrounded events is contradicted by examples in
which a wayyiqtol-qatal sequence portrays simultaneous (equal and opposing) foregrounded events (e.g., Gen 4.3–4; 33.16), as illustrated in [4.18] (see Talmon 1978:12).

Because Reinhart, following Hatav’s treatment of BH, identifies wayyiqtol as the only form that marks temporal succession and foregrounded events in BH narrative, she is forced to incorrectly identify the wayyiqtol event as foregrounded and the qatal event as backgrounded in the example in [4.18] (1984:794–95).

While other forms may present foregrounded events, as demonstrated by [4.18], the reverse is not the case: wayyiqtol never marks backgrounded events and only functions off the main storyline in secondary storylines (e.g., flashbacks or narrative embedded in speech). It is exegetically significant, therefore, when events that one would expect to be backgrounded (and presented with qatal forms) are foregrounded with wayyiqtol, as in the examples in [4.19].

It would seem quite natural to express both of the bracketed clauses with qatal (vs. 24, 29), thus signaling that the events are background in the context of the foregrounding wayyiqtol verbs (e.g, w'lâbân nâtânt... ‘Now Laban gave/had given:QTL:3Ms...’). However, using wayyiqtol in these
instances foreshadows the important role the handmaids of Leah and Rachel will have in the story about Jacob’s family (see Collins 1995:132–33)—namely, the handmaids become tools of their mistresses in the sororial feud over Jacob’s affections (Gen 30).

In conclusion, *wayyiqtol* is appropriately called a narrative verb since the form commonly coincides with temporally successive events and always expresses foregrounded events, both of which characterize narrative discourse. However, the correlation between temporal succession and *wayyiqtol* should not be interpreted as causation; *wayyiqtol* is not marked for temporal succession. Rather, temporal succession is linguistically determined by several factors of which the default perfective value of *wayyiqtol* is only one.

In the case of foregrounding, the correlation with *wayyiqtol* is closer: events in *wayyiqtol* are always foregrounded; however, other forms may also express foreground. For instance, when the author wants to avoid the implication of temporal succession, *qatal* is conjoined to *wayyiqtol* to portray simultaneous foregrounded events. The choice of *wayyiqtol* as narrative verb in Biblical Hebrew parallels the use of simple past verbs in narrative in other languages (e.g., English, French, German), and is motivated by the high saliency of simple past verbs, which express perfective aspect by default (see table 4.2).

### 4.3.2 *Weqatal* and Non-Narrative Discourse

Analysis of *weqatal* has been hampered by its analogical association with *wayyiqtol*.

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*The designation *weqatal* has been shown in chapter three to be misleading, and replaced in discussions there by modal *qatal* (vs. indicative *qatal*) (3.3.3.1, 3.3.3.3). However, for the sake of the discourse-pragmatic discussion here, the label *weqatal* is employed and used to distinguish the modal, *waw*-prefixed forms from the largely non-modal, non-*waw*-prefixed forms in the examples (i.e., *WQTL* versus *QTL*).*
Longacre adopts this view, stating that,

The formal analogy of the wāw-consecutive perfect [i.e., weqatal] to the wāw-consecutive imperfect [i.e., wayyiqtol] is quite complete: (1) Both are limited to VSO clauses and may not be negated (or otherwise introduced by particles such as kî or ′îm). (2) Both report sequential and punctiliar actions/events. (3) Just as wāw-consecutive imperfect (preterite) gives way to a perfect when a noun or lō ‘not’ is preposed, so a wāw-consecutive perfect gives way to an imperfect when a noun or lō is preposed to it. Semantically there is a contrast: the wāw-consecutive perfect is projected into the future, and the wāw-consecutive imperfect is a past tense. (1992:181)

In light of the semantic theory proposed in chapter three, there are several problems with this characterization of weqatal. First, weqatal is comparable with wayyiqtol only syntactically (both have obligatory VS word order), not semantically nor discourse-pragmatically. Second, the future reference of weqatal derives from its modality, of which several meanings may be distinguished (e.g., commissive, deontic, contingent) (see 3.3.3.3). Finally, recognizing the modal character of weqatal and the protasis-apodosis type constructions in which it often appears, leads to a recognition that treating weqatal as a sequential verb is a gross generalization.

Despite the inaccuracies of Longacre’s characterization of weqatal, his identification of the types of discourse in which the form appears is a helpful approach to examining the form’s use in discourse (see my table 2.8a–d). The relevant claims Longacre makes are: (1) weqatal expresses successive events (i.e., temporal succession; see above quote); (2) in hortatory discourse (table 2.8c), weqatal expresses background—specifically results or consequences (i.e., implicated contingent modality); (3) in predictive, procedural, and instructional discourse (table 2.8b and d) weqatal expresses foreground (an imperative introduces this foregrounded string of weqatal in instructional discourse; see table 2.8d). Differences between these discourse types at lower levels in the verb ranking are not addressed here.

In hortatory discourse, in which the deontic modal verbs (Imperative and Jussive) form the
foreground, \textit{weqatal} mainly expresses implicated contingent modality, as illustrated in [4.20].

\begin{verbatim}
[4.20] 'imrî- na 'ahôtí 'ât I'ma'an yitab- lî ba'âbûrêk
speak:IMPR:FS please sister-my you in-order that be-well:YQTL:3MS for-me on-account-you
w'hâyta napšî biglêlék
and-live:WQTL:3FS life-my on-account-you

'Please say that you (are) my sister in order that it might go well for me on your account and my life might live (i.e., be spared) because of you.' (Gen 12.13)
\end{verbatim}

This function of \textit{weqatal} is well documented in the reference grammars (e.g., Joûon 1991:398–401) and requires no elaboration here. This semantically subordinate meaning for \textit{weqatal} demonstrates, however, that the form cannot be unconditionally associated with foregrounding as is \textit{wayyiqtol}.

In the other discourse types—predictive, procedural, and instructional—Longacre’s observations are partially correct in that \textit{weqatal} may present temporally successive foregrounded events; however, it is not the only form with this role nor is it limited to this role, as illustrated by the instructional example in [4.21] (cited by Longacre 1994:54). In this example a variety of verb forms are used to portray the temporally successive series of instructions that form the foreground: \textit{yiqtol} (eleven times), \textit{weqatal} (five times), Imperative (two times), and one \textit{weqatal} occurs in a semantically subordinate implicated clause (vs. 21).

\begin{verbatim}
[4.21] 'Make (IPV:MS) for yourself an ark of cypress wood, and you must make (YQTL:2MS) rooms in the ark, and you should cover (WQTL:2MS) it inside and outside with pitch. 15And this is how you must make (YQTL:2MS) it: the ark (will be) three-hundred cubits long, fifty cubits wide and thirty cubits high. 16You must make (YQTL:2MS) a roof for the ark and to one cubit you must complete it (YQTL:2MS) above, and you must place (YQTL:2MS) a door in the side of the ark, and you must make it (YQTL:2MS) with lower second and third (decks). 17And I, behold I am going to bring (QOT:MS) the flood of water upon the earth to destroy (INF) all flesh from under heaven that has the spirit of life in it; everything that is on earth will perish (YQTL:3MS). 18But I hereby establish (WQTL:1CS) my covenant with you; you should enter (WQTL:2MS) the ark—you, your sons, and your wife, and the wives of your sons with you. 19And from all living things, from all flesh, two from all (of them) you must bring (YQTL:2MS) into the ark to keep alive (INF) with you; male and female they must be (YQTL:3MP). 20From the birds according to their kind, and from the animals according to their kind, from every creeping thing of the ground according to their kind, two from everything will come (YQTL:3MP) to you to keep (them) alive (INF). 21And you, take (IMPR:MS) for yourself from all food that may be eaten (YQTL:3MS), and you should gather (WQTL:2MS) (it) for yourself so that it might be (WQTL:3MS) for food for you and for
\end{verbatim}
likewise, there are exceptions in predictive and procedural discourse examples to longacre’s claim that weqatal portrays temporally successive foreground events (see [4.22–23]). unfortunately, longacre’s eschewal of semantics has led him to make this erroneous discourse claim about weqatal; at the same time, it has caused him to miss the distinct semantics of weqatal in these discourse types (predictive, procedural, and instructional) that, ironically, support his distinction between predictive, procedural, and instructional discourses (which he has difficulty making on a discourse basis alone, see my table 2.8b).

thus, if we examine weqatal in the excerpt in [4.22], which longacre cites as exemplary of predictive discourse, “where Samuel predicts what will happen to Saul after Saul departs from him” (1994:51), we find that the semantic analysis of weqatal in chapter three (3.3.3.3) leads to a more accurate understanding of the distinct role modal qatal plays in predictive discourse.

modern grammars (like gardner 1988; mohr 1992) consider the weqatal “a special kind of qatal” (mohr 1992:10). this is based on the idea that (following gardner) weqatal is the qatal form of a future infinitive. it is generally assumed that it is this “future infinitival” or “future” meaning that is the source of this distinct role in predictive discourse. this assumption overlooks the actual use of weqatal in predictive, procedural, and instructional discourses (which he has difficulty making on a discourse basis alone, see my table 2.8b).

4.22 When you go (infinitive) today from me, (then) you will meet (weqatal) two men near the tomb of Rachel in the territory of Benjamin in Zelzah, and they will say (weqatal) to you, “The donkeys that you went (qatal) to look for (infinitive) have been found (qatal), and behold, your father has abandoned (qatal) the matter of the donkeys and is anxious (qatal) for you saying, ‘What should I do (yiqtol) about my son?’” And when you pass on (weqatal) farther from there, (then) you will come (weqatal) to the oak of Tabor and three men will meet you (weqatal) there, going up to God at Bethel, one carrying (participle) three kids, and one carrying (participle) three loaves of bread, and one carrying (participle) a skin of wine. And they will greet (weqatal) you and give (weqatal) you two (loaves) of bread and you should take (weqatal) (them) from their hand. After that you will come (yiqtol) to Gibat-elohim, where the Philistine garrison is. And when you come (infinitive) there to the city (then) you will meet (weqatal) a band of prophets coming down (participle) from the high place, with harp, tambourine, and flute, and lyre before them, and prophesying (participle). And the spirit of Yhwh will rush (weqatal) upon you so that you will prophesy (weqatal) with them so that you are changed (weqatal) into a different person.” (1 Sam 10.2–6)

longacre notes that the episode begins with a temporal infinitival phrase; this is the first clue to understanding the “string of weqatal clauses”—they form the apodosis to the infinitival protasis (1994:51). the weqatal in verse 3 (w’ḥālapṭā . . . ūḇāṭā) are most naturally taken as beginning a second temporal protasis-apodosis construction following the direct speech in verse
2. One example of *weqatal* has a directive modal sense as well as continuing an apodosis (*w*lāqaḥtā, vs. 4). Thus, *weqatal* is not temporally successive as it is in narrative, although it does portray temporally successive events *within apodoses* (e.g., *(then) you will meet . . . and they will say*, vs. 2). Although Longacre’s observations about the use of *weqatal* for foreground in this passage are partially correct, a semantic analysis of *weqatal* yields a more nuanced understanding of use of *weqatal* in this passage, which is manifest by a comparison between the translation in [4.22] and Longacre’s rendering of all of the *weqatal* in the passage with English Future forms (1994:51).

Longacre illustrates procedural discourse with the excerpt from legal literature given in [4.23] (1994:52). Again, Longacre’s observation that *weqatal* in procedural discourse correlates with foreground events is partially correct, but other forms also represent foreground events (e.g., Imperative in vs. 2) and *weqatal* also expresses background (i.e., implicated modality in vs. 2). As in the example of predictive discourse above ([4.22]), the overarching semantic structure of this procedural discourse passage is a protasis-apodosis construction in which *weqatal* presents a series of apodoses. Again, *weqatal* expresses temporal succession only within the confines of the apodosis construction, along with other forms (e.g., *yiqtol* in vs. 7).

[4.23]  
1Speak (*IMPV: MS*) to the sons of Israel, saying, “When (*kî*) a person sins (*YQTL:3 FS*) inadvertently (with respect to) any of the commandments of Yhwh (about) things that should not to be done (*YQTL:3 FP*), *so that he does* (*WQTL:3 MS*) one of them: 2If (*‘im*) the anointed priest sins (*YQTL:3 MS*), to the guilt of the people, *then he should offer* (*WQTL:3 MS*) for his sin that he has committed (*QTL:3 MS*) a bull, son of the herd, without blemish to Yhwh for a sin offering. 3*And he should bring* (*WQTL:3 MS*) the bull to the entrance of the tent of meeting before Yhwh, *and he should lay* (*WQTL:3 MS*) his hand on the head of the bull, *and he should slaughter* (*WQTL:3 MS*) the bull before Yhwh. 4*And* the anointed priest *should take* (*WQTL:3 MS*) some of the blood of the bull and *bring* (*WQTL:3 MS*) it into the tent of meeting. 5*And* the priest *should dip* (*WQTL:3 MS*) his finger in the blood and *sprinkle* (*WQTL:3 MS*) some of the blood seven times before Yhwh in front of the curtain of the sanctuary. 6*And* the priest *should place* (*WQTL:3 MS*) some of the blood on the horns of the altar of fragrant incense, which is in the tent of meeting before Yhwh, and all (the rest) of the blood of the bull *he must pour* (*YQTL:3 MS*) at the base of the altar of burnt offering, which is at the entrance of the tent of meeting. 7*He must
remove (YQTL:3MS) all the fat from the bull of sin offering: the fat that covers (QOT:MS) the entrails and all the fat around the entrails; 9 the two kidneys with the fat that is on them at the loins; and the appendage upon the liver, which he must remove (YQTL:3MS) with the kidneys, 10 just as it is removed (YQTL:3MS) from the ox of the sacrifice of well-being. And the priest should make them smoke (WQTL:3MS) upon the altar of burnt offering. 11 But the skin of the bull and all its flesh, upon its head, its legs, and its entrails, and its dung— 12 all (the rest) of the bull—he should take (WQTL:3MS) outside of the camp to a clean place, to the ash heap, and he should burn (WQTL:3MS) it on wood in the fire; at the ash heap it must be burned (YQTL:3MS) (Lev 4.2–12)

Nevertheless, what is distinctive about weqatal in procedural discourse, as compared to predictive, is that weqatal has a combined conditional-deontic (directive) meaning (see [3.42]), as found in other conditional law codes (e.g., Deut 22.8; etc.).

Finally, the difference between predictive and procedural discourses, on the one hand, and instructional discourse, on the other, is in the absence of a protasis-apodosis construction in the latter. Here weqatal comes closest to paralleling the use of wayyiqtol in narrative: weqatal begins the discourse and portrays the foregrounded instructions in temporal succession, as illustrated in [4.24] (repeated from [3.41]). Rather than a mix of deontic forms (Imperative, yiqtol, and weqatal), as in the instructional discourse example above ([4.21]), weqatal predominates this instructional passage, and exhibits a directive modal sense throughout (yiqtol serves as background).

[4.24] They should make (WQTL:3p) an ark of acacia wood; and its length (should be) two and a half cubits, its width a cubit and a half, and its height a cubit and a half. 11 You should overlay (WQTL:2MS) it with pure gold; inside and outside you should overlay (YQTL:2MS) it, and you should make (WQTL:2MS) a molding of gold upon it all around. 12 You should cast (WQTL:2MS) four rings of gold for it and place (WQTL:2MS) them on its four feet, and two rings on the one side of it, and two rings on the other side. 13 You should make (WQTL:2MS) poles of acacia wood, and overlay (WQTL:2MS) them with gold. 14 And you should bring (WQTL:2MS) the poles into the rings on the sides of the ark, by which to carry the ark. 15 The poles must remain (YQTL:3MP) in the rings of the ark; they must not be taken (YQTL:3MP) from it. 16 You should place (WQTL:2MS) into the ark the testimony that I will give (YQTL:1S) you.’ (Exod 25.10–16)

The analyses above of predictive, procedural, and instructional discourse types have refuted both the unconditional correlation of weqatal with foregrounding and the claim that it is marked
for temporal succession. These claims belie the varied employment of weqatal in these discourse types. With respect to foregrounding, weqatal is neither exclusively used to portray foreground events, nor is it restricted to portraying the foreground.

With respect to temporal succession, we saw that in at least one example of instructional discourse ([4.24]) weqatal’s correlation with this parameter is almost analogous with wayyiqtol’s correlation with it in narrative discourse: weqatal presents a series of instructions in temporal succession (i.e., *do this, then do this . . .*). However, as demonstrated by the other instructional example ([4.21]), this predominance of weqatal is not characteristic of all instructional discourses (at least as defined by Longacre). In contrast, weqatal in predictive and procedural discourses correlates with temporal succession only within the confines of temporally successive apodoses (*when this, then this, and (then) this . . .*). However, it may be used in both the protasis and apodosis (e.g., [4.22], vs. 3), a construction that explicitly avoids temporal succession.

Importantly, the semantic analysis of weqatal in these three discourse types supports Longacre’s discourse types as genuinely distinct: weqatal predominantly expresses contingent types of modality in predictive discourse, including conditional and implicated modality; in procedural discourse weqatal has a contingent-deontic use, expressing directive modality in conditional constructions (e.g., *if this, then he should do this*); finally, in instructional discourse weqatal predominantly expresses directive deontic modality.

### 4.3.3 Summary

The preceding discussion has examined the waw-prefixed verbs with respect to the two discourse-pragmatic values most commonly associated with them—temporal succession (often
called sequentiality) and foregrounding. Based on the analysis of the parameters effecting temporal succession above (4.1.2), it is clear that neither wayyiqtol nor weqatal alone determines temporal succession. However, since both forms express perfective aspect, they regularly contribute to temporal succession in combination with situation aspect and/or sometimes temporal adverbial modification.

The correlation between the waw-prefixed forms and foregrounding, by contrast, is not a semantic issue but strictly a psycholinguistic one. Both forms may mark events as foregrounded. However, while wayyiqtol, as the BH narrative past verb, always portrays events as foregrounded in narrative discourse, weqatal is not limited to foregrounding, but may serve other functions and is commonly subordinate with respect to other verbs that express foregrounded material in non-narrative discourse (e.g., yiqtol and Imperative in hortatory discourse).

Finally, the connection between verbal semantics and discourse-pragmatics has been shown above (4.3.2) in the analysis of weqatal in predictive, procedural, and instructional discourse. The semantic distinction between weqatal in each discourse types buttresses Longacre’s claims of distinct discourse types made solely on the grounds of discourse analysis.
5 SUMMARY

This study constructs a semantic model of the Biblical Hebrew verbal system (excluding infinitive forms) based on an analysis of the grammaticalization of the verb forms (chap. 3). The semantic model, in turn, forms the foundation for a discourse-pragmatic investigation of the verbal forms in Biblical Hebrew prose (chap. 4). This study is placed within the context of developing linguistic research about the universal categories of tense, aspect, and modality (chap. 1), as well as previous studies of the Biblical Hebrew verbal system (chap. 2). The model has been developed within the framework of a grammaticalization approach that can account for form and meaning asymmetries within the verbal systems in terms of certain principles of grammaticalization (e.g., universal paths of development, persistence of meaning). Verification of the conclusions is found in typological data on tense, aspect, and modality systems.

Chapter one begins with an investigation of the development of Reichenbach’s revolutionary R(efERENCE)-point theory, whereby, “tenses” are defined not simply in terms of a two-way relationship between the point of the event and point of speaking, but with a three-way relationship between these latter points and also a reference point. The strength of the R-point theory is its ability to distinguish verb “tenses” that previous models were unable to disambiguate (e.g., English Simple Past vs. Present Perfect), and its ability to treat complex tense forms (e.g., English Past Conditional and Past Perfect) (see 1.2; esp. table 1.4).

Unfortunately, the R-point theory (and its various permutations) is flawed because it does not allow any place for aspect in defining verbal forms. For example, although the R-point theory
successively distinguishes English Simple Past and Present Perfect by means of three temporal points, the distinction is false since the Perfect contrasts with the Simple Past \textit{aspectually}. Theories which define verb forms in terms of both tense and aspect have capitalized on the R-point tense theory by modifying it to define both tense and viewpoint aspect: the relationship between the reference point and the point of the event determines viewpoint aspect, while the precedence relationship between the reference point and the point of speaking determines tense (see 1.4; esp. fig. 1.7).

Tense and aspect, however, have a complex relationship, as Bache’s study of the interactions and compatibilities among categories of tense and aspect shows. Uniformity and variety among tense, aspect, and modality systems in the world’s languages have been investigated by typological studies. Several of the conclusions from these studies form the basis of the investigation of the Biblical Hebrew verbal system in chapter three (e.g., the predominant tripartite aspectual model, universal paths, tense, aspect, and modality-prominence) (1.5).

A relatively recent area of interest with respect to tense and aspect has to do with their roles in discourse. Some studies have been content to simply correlate verb forms with discourse functions (e.g., perfective verbs often portray events that are foregrounded). However, such correlations often lead to gratuitous assumptions of primary causation (e.g., perfective verbs foreground events). Other studies have examined the semantic contribution of verbal aspect to the movement of discourse time. As linguists’ understanding of the movement of discourse time has increased, earlier theories have been shown to be simplistic (see 1.6).

Finally, chapter one concludes with an introduction to the sprawling category of modality (see 1.7). In particular, epistemic, deontic, and oblique (or, contingent) modalities are defined
as a basis for the discussion of these types of modality in the Biblical Hebrew verbal system in chapter three. In addition, two disputed claims are addressed: the claim that the real(is) : irreal(is) opposition is a type of modality, and the claim that future tense is a modal category. Both of these assertions are rejected, although in the latter case, an examination of the arguments that future tense is non-modal (indicative) is reserved for chapter three (see 3.1.6).

**Chapter two** surveys the study of the Biblical Hebrew verbal system over the past century and a half. In particular, the advancement of aspectual and tense models is examined. Modern tense models of the Biblical Hebrew verbal system represent an extension of the Jewish Medieval tense theories. Although some scholars still adhere to a simple tense theory of BH, whereby *qatal* is past tense and *yiqtol* is non-past (or alternatively, *qotel* is present and *yiqtol* is future), most scholars recognize tense in BH as relative (i.e., determined by contextual factors) (2.4).

The genesis of modern aspectual models is found in Ewald’s work on Semitic. However, his rudimentary aspectual conception has been revised, particularly on the basis of linguistic clarifications of the concept of aspect. Although Ewald’s labels *perfect* and *imperfect* for the *qatal* and *yiqtol* forms in BH have persisted in the literature, twentieth-century German scholarship has sought to avoid the ontological implications of these terms (i.e., complete = past; incomplete = non-past) by substituting the Latinate terms “konstatierend” (from *constare* ‘to stand still,’ ‘to exist’) and “kursiv” (from *cursus* ‘running,’ ‘coursing’) for the former. Another strain of German studies has eschewed the traditional notion of aspect, and proposed various quasi-aspectual labels for *qatal* and *yiqtol* (e.g., “selbstgewichtig” vs. “relativ”; “determinierend” vs. “determiniert”) (see 2.5).

Discourse approaches to the Biblical Hebrew verbal system have become popular in the past
twenty years. Although they make valuable observations with respect to how the verb forms are used in discourse, they are criticized for abandoning semantics on the grounds that semantics determine to some degree discourse function. Consequently, it is argued that a discourse treatment of the Biblical Hebrew verbal system must follow rather than precede a semantic analysis (see 2.6).

Finally, chapter two surveys two types of multi-parameter models of the Biblical Hebrew verbal system: those that feature modality and those that feature temporal succession as parameters in their models. Modal models have capitalized on the fuzzy line between indicative and modal forms in BH, but ultimately have not provided a satisfactory model of Biblical Hebrew verbal system as primarily defined by modality. Models that identify temporal succession as the distinct parameter of the waw-prefixed forms founder on the fact that none of them has made the case that languages ever mark temporal succession with verbal bound morphology (2.7).

**Chapter three** begins with a discussion of tense, aspect, and modality (3.1). In particular, an event model is developed for understanding aspect: the structure of the event model is determined by the situation aspect; the scope and distance of a reference frame from the event model is determined by viewpoint aspect; and phasal aspect alters the event model by making one of its phases into an activity subevent. The complex interaction between situation and viewpoint aspect is clarified by examining the subinterval property, (a)telicity, and (un)boundedness.

Drawing upon the strengths of both the R-point relative tense theories and tense-aspect theories, it is proposed that tense is defined by the precedence relationship between both the event and reference frame to the speech time: the reference frame acts as a transient reference time with respect to tense; this relationship is supplemented by the ontological precedence
relationship between the event and speech time.

The discussion of modality provides analyses of the various types of relevant aspect (epistemic, deontic, and contingent). In addition, it presents the case for a non-modal future tense on the basis of the distinction between possible futures and the actual future, about which statements can be judged true or false.

Chapter three continues with a methodological discussion of the grammaticalization approach (3.2). In particular, grammaticalization theory is addressed and a case is made for the eschewal of the strong post-Saussurean dichotomy between diachrony and synchrony; instead, a panchronic approach is proposed for investigating the Biblical Hebrew verbal system. Two principles of grammaticalization are explored with respect to their ability to account for common form and meaning asymmetries in language: the layering effect of the cyclical grammaticalization process; and the positing of universal paths of development within each broad semantic domain. Finally, the issue of how basic meanings are to be determined within this grammaticalization approach is addressed in terms of a combination of extensional and intensional approaches to meaning.

The main part of chapter three examines the grammaticalization and semantics of the individual verb forms in BH. Qatal and wayyiqtol, it is concluded, developed along the same universal path for perfective and past verbs (see fig. 3.10), the past tense wayyiqtol having begun its development earlier than the perfective qatal. Similarly, yiqtol and qotel are determined to belong to the same path of progressives developing into imperfectives/presents; however, while the former is imperfective in Biblical Hebrew, the latter is still a progressive form. Finally, the Jussive and Imperative are marked for deontic (directive and volitive) modality. It is argued that the paragogic -â of the Cohortative form is unrelated to the form’s modality, and therefore,
instances of the so-called Cohortative should simply be treated as first person Jussives.

The data show that the Biblical Hebrew verbal system is aspect-prominent, a system not unlike the many aspect systems in the world’s languages that may be defined with Dahl’s tripartite model (see fig. 3.9). Nevertheless, this system is not static, but is drifting towards becoming tense-prominent. This drift appears to be complete in Rabbinic Hebrew, in which qatal is past tense (wayyiqtol has become obsolete), qotel is preferred for present tense and is used in periphrastic progressive expressions, and yiqtol represents both future tense and deontic modality, though its tense value is largely restricted to subordinate statements. The conclusions concerning the grammaticalization of the Biblical Hebrew verbal system and the semantic range and overlap among the verbal forms is summarized in a table and figure at the end of chapter three (table 3.6 and fig. 3.15).

Discourse analysis has a complementary role to a semantic analysis by examining the degree to which forms with semantic overlap may nevertheless exhibit discourse-pragmatic differences. **Chapter four** looks at the waw-prefixed forms (i.e., wayyiqtol and weqatal) to determine whether there is a clear discourse-pragmatic distinction between them and their non-waw-prefixed semantic counterparts (i.e., qatal and yiqtol).

An examination of temporal succession and foreground-background arrives at the conclusion that the former is semantic and the latter psycholinguistic. Temporal succession is indicated by a gestalt of factors including viewpoint and situation aspect and temporal adverbial modification. By contrast, the foreground-background distinction is determined by the relative saliency of events. An examination of the BH data determines that wayyiqtol is a narrative verb and thus contrasts with qatal in that the former always presents the most salient events in narrative (i.e.,
foreground events). By contrast, *qatal* expresses foreground events infrequently, but commonly expresses background events in prose narrative discourse in the Hebrew Bible.

The distinction between *weqatal* and *yiqtol* is not as clear-cut. Although *weqatal* often corresponds with temporal succession and/or foregrounding in non-narrative discourse types, it is not exclusively marked for either. However, the unique semantics of *weqatal* in different discourse types buttresses the discourse-pragmatic distinction between predictive discourse, procedural discourse, and instructive discourse.

This semantic and discourse-pragmatic investigation of the Biblical Hebrew verbal system clarifies the parameters of tense, aspect, and modality. It also outlines the key issues in treating the Biblical Hebrew verbal system and the weaknesses of previous investigations into these issues. By taking a grammaticalization approach and applying typological data this study has provided a way past the impasse of previous models by resolving the diachrony-synchrony methodological debate and providing cross-linguistic confirmation of the proposed semantic model.
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