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Thesis approval Sheet

This thesis, entitled
A Semantic Analysis of the Biblical Hebrew Verbal System in Prophetic Literature

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A Semantic Analysis of the Biblical Hebrew Verbal System in Prophetic Literature

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Presented to the Faculty of
the Graduate Institute of Applied Linguistics
in partial fulfillment of the requirements
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ABSTRACT

A Semantic Analysis of the Biblical Hebrew Verbal System in Prophetic Literature

Kevin Grasso
Master of Arts
with major in
Applied Linguistics

The Graduate Institute of Applied Linguistics, June 2016

Supervising Professors: Paul Kroeger and Perry Oakes

This thesis analyzes the Biblical Hebrew Verbal System as represented in Amos, Micah, and Zephaniah and posits an invariable meaning for each of the four finite forms based on a semantic analysis. A general theory of TAM is presented, and then it is applied to QATAL, WEQATAL, YIQTOL, and WAYYIQTOL (the four finite forms). QATAL is found to be polysemous for perfective and perfect aspect, WEQATAL is found to be perfective-irrealis, YIQTOL is found to be irrealis, and WAYYIQTOL is found to be past-perfective. On a discourse level, it is found that each of the forms have tendencies to be temporally related to adjacent clauses in certain ways, but these relationships are not a part of the invariable meaning of the forms. Throughout the thesis, the semantic analysis presented is compared to other major analyses from various perspectives, including traditional, discourse, and diachronic approaches.

DEDICATION

Dedicated to my wife, Rachel. Thanks for being patient, loving, and supportive during this process.

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There are many people to whom I am greatly indebted for the accomplishment of this thesis, but it is to God that I am truly indebted. He sustains my life, grants me knowledge, and is the only source of peace. To Him, I am grateful above all else.

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ABBREVIATIONS

A1:1	Amos Chapter #:Verse #	SS	Source State
BH	Biblical Hebrew	TA	Temporal Anchor
BHVS	Biblical Hebrew Verbal System	TAM	Tense, Aspect, and Modality
CBH	Classical Biblical Hebrew	TS	Target State
DD	Direct Discourse	TSIT	Time of Situation
FDD	Free Direct Discourse	TT	Topic Time
FID	Free Indirect Discourse	TU	Time of Utterance
ID	Indirect Discourse	TWRIT	Time of Writing
LBH	Late Biblical Hebrew	Z1:1	Zephaniah Chapter #:Verse #
M1:1	Micah Chapter #:Verse #		

CHAPTER 1: INTRODUCTION

Few languages have been studied as much as Biblical Hebrew (BH). Its importance in the three Abrahamic religions can hardly be overstated as the Hebrew Bible is, arguably, essential to all three of them. As a literary document, the Hebrew Bible has stood the test of time, and its message is as relevant today as it ever has been. Given these considerations, it is reasonable to suppose that the language such a message is encoded in would receive a tremendous amount of research and scrutiny—and indeed it has. Yet for all this, modern linguistics has only recently helped shed a considerable amount of light on BH, so there are still many debates surrounding its grammar that can be fruitfully reconsidered.

1.1 Goals for the Study

It is my aim in this thesis to analyze the Biblical Hebrew Verbal System (BHVS) as represented in the prophets, and as a result of this, to suggest some possible revisions to the analyses of the BHVS as a whole (though validating this suggestion would require a much larger corpus). The science of linguistics has much to say about verbal theory that has not yet been fully integrated into the study of BH. In some respects, this is obvious as new linguistic theories are always being developed, making it quite difficult to have a currently relevant theory. However, Hebraists and linguists have, in my opinion, often been unfortunately separated to a higher than usual degree. Hebrew linguistics has indeed been informed by general linguistics, and linguistics has benefited from the study of Hebrew, yet those studying the BHVS often do not approach it with a thorough background in semantics (the field of linguistics most closely associated with the meaning of verbs). This is not to decry all current theories of the BHVS, nor is it to say that there are not those who have studied this issue from a semantics standpoint; it is only to say that a primarily semantic framework is often marginalized in lieu of other frameworks (e.g. diachronic studies, discourse, and traditional approaches—as discussed below). All of these have their

place and can be useful, but in this thesis, I have sought to provide a new analysis with a semantic framework in the hope that readers of the Hebrew Bible might achieve a greater understanding of the text.

Biblical Hebrew has a long tradition of grammatical studies, and this has resulted in the adoption of a number of different terminologies and frameworks. While I have analyzed the BHVS from a linguistic standpoint, I have also tried to make it accessible to those without a background in linguistics, since there are many students and scholars of the Hebrew Bible without such a background. Given this, I have sought to define my terms meticulously (sometimes at the cost of brevity) and have provided many diagrams to help visually represent concepts that might be complicated to those with a different background. Because many reading this thesis will have a background in linguistics, I have delegated some of the more elementary linguistic terms and concepts to footnotes so as not to bog down the reader with too many definitions. I have also given examples both in the Hebrew script and in transliterated form in order to make it more accessible to linguists who might not know Hebrew. In many ways, my approach is very similar to Corien Bary's who studied the Ancient Greek aspect system from a semantics perspective. The state of grammatical studies in Ancient Greek is quite similar to BH (Bary 2009:4):

Grammars of Ancient Greek are a rich source of information on this topic [the meaning of imperfective and aoristic aspect in the Ancient Greek verbal system], but mainly from a descriptive point of view. From a theoretical point of view, they do not provide deeper insight in the actual semantics of the Ancient Greek aspectual system. It is common practice in grammars of Ancient Greek to first give a characterisation of the basic meaning of aoristic and imperfective aspect which is then followed by an overview of their specific interpretations. Whether these interpretations are seen as special instances of the basic meanings or as separate meanings is often left unclear. The degree to which they are related to the basic meanings varies from author to author, but so far no one has managed to systematically derive the specific interpretations from the basic ones. I will show that by using the ideas and tools that have been developed in the field of formal semantics we can achieve this.

This also is my goal in the current thesis. I use semantics to help explain how the meaning of a verb form can account for its various functions and interpretations. The functions of the forms can be found in any standard grammar; I do not intend to merely

repeat this information, since it has already been studied so thoroughly and comprehensively by those who have come before me. While these previous studies have been helpful in delimiting the functions of the forms, there often appears to be little attempt to relate these back to a central meaning.

Another aim of my thesis is to help provide insight into a corpus that is often not the focus in studies on the BHVS: the prophets. The majority of recent studies on the BHVS have primarily, and sometimes exclusively, focused on narrative prose rather than prophetic literature. While I do not believe that the meaning of a verb form changes with a change in genre, there are peculiarities with any genre that affect how the forms are ordinarily used. By choosing to study the prophets, I have subjected myself to a different set of peculiarities that have also affected my analysis, but my hope is that these differences can be minimized by looking to those previous studies that are based mostly on narrative. I have tried to relate every function of the forms in my corpus to a central meaning (or meanings). If correct, the central meaning can easily be generalized to the other prophets and even narrative passages. By basing my study on semantics, even those functions that might not be found in my corpus should be relatable to the meaning(s) assigned.

Among the prophets, I have chosen to study the books of Amos, Micah, and Zephaniah. My corpus is quite limited (both in genre and scope), but to help compensate for this, I do not exclusively discuss examples from these prophets, especially when verses are used by other Hebraists to support different theories. In keeping with my goal of contributing to our knowledge of prophetic literature, I have kept most of my examples limited to the prophets in general, even when I give examples outside of my main corpus (though I still include discussions of other portions). In doing this, I hope that the system I present can help us to understand prophetic literature better and can suggest new ways of seeing the BHVS as a whole. Those who know the Hebrew Bible well should be able to extrapolate from my limited examples to other similar phenomena in the rest of the wider corpus.

The final goal of my thesis is to provide a useful study for those who are handling the Hebrew Bible. My desire is to help those who are interpreting and/or translating the

Hebrew Bible to be more faithful to the meaning represented in the words and grammar. Ancient languages necessarily have difficulties associated with them that are unique, one of them being a particularly acute reliance upon a static text rather than native speakers. Unfortunately, there is no one we can ask about the meaning of the YIQTOL form that speaks BH natively. While native speakers are usually viewed as the authority for the languages they speak, no such appeal can be made in this case. As a result, grammarians who do not speak the language become the “authority” on the language, so those who wish to learn the language start by listening to the grammarian (whether teaching inductively or deductively). The beginning BH student is dependent on those who have come before him or her and have already immersed themselves in the texts. I hope that the time I have spent in the text (and in the linguistics literature) might help those who want to understand the Hebrew Bible more fully.

1.2 General Overview

I begin my study with an in-depth discussion of my linguistic framework in chapter 2. First, I explain why I have chosen to approach the BHVS from a semantics-based perspective rather than from other perspectives more commonly used for analysis of the BHVS. The concepts explained in this initial section are foundational to the rest of the thesis and are referred to throughout. In the rest of the chapter, I lay out my theory of the five general linguistic categories relevant to the study of any verbal system: tense, aspect, modality, mood, and discourse. Although these sections will be dense to those not acquainted with linguistics, they should not be skimmed over. My analysis of the BHVS cannot be understood without first grasping these concepts.

Chapter 3 covers the four major finite verb forms found in BH: QATAL, WEQATAL, YIQTOL, and WAYYIQTOL. This is where I take the functions of the various forms and relate them back to a central meaning (or meanings). I focus primarily on the clause in which a form is found and explain the contribution a form makes to the utterance. Due to a lack of space, I have not included the participle, the infinitive, or the imperative, jussive, and cohortative paradigm. These forms are also important to any study of the BHVS, so I have

not excluded them out of negligence, nor does my exclusion of them suggest they are less important to understanding the system as a whole. My hope is that the breadth I have sacrificed by not covering these forms has been compensated for by the added depth given to the finite forms.

In chapter 4, I move beyond how the forms are functioning within their own clause to analyze how they are related to other forms in a discourse. Once again, there are limitations and deficiencies in my study, particularly because the “discourses” I analyze are quite short and because the prophets are a unique corpus. While I have chosen discourses that are more broadly applicable than others (so some of my findings can be beneficial for studying other genres), the findings in this chapter are much more specific to the prophets and less generalizable than the previous chapter. As with chapter 3, grasping the theory of discourse laid out in chapter 2 is a prerequisite to understanding this chapter.

The final chapter of this thesis is devoted to briefly summarizing my findings, suggesting avenues needed for further research, and giving a few pedagogical implications. With Cook, I also see the great need to make any study of the BHVS practical by suggesting at least a few ways that the findings can be applied to the classroom (Cook 2014:99).

With pedagogical concerns in mind, it should be noted that I have used standard linguistic terminology throughout the thesis rather than the terminology that has been developed by traditional grammarians (again, agreeing with Cook 2014:88-89). In order to avoid any confusion about the semantics of the forms in question, I have followed the common practice of referencing the forms by their transliteration (e.g. QATAL, YIQTOL, etc.) rather than a semantic label (such as perfect, imperfect, past, etc.). Cook helpfully lists “terminological equivalences” of the various forms in the following chart (slightly modified from 2014:80):

- a. QATAL = preterite/past = affix form = perfect/perfective
- b. YIQTOL = future/modal = prefix form = imperfect/imperfective
- c. WEQATAL = *waw*-conversive preterite = *waw*-consecutive perfect = irrealis perfect/*qatal*
- d. WAYYIQTOL = *waw*-conversive future = *waw*-consecutive imperfect = past tense = sequential form

Figure 1: BHVS Terminological Equivalences

As mentioned above, I use the left-most column to refer to the different forms. One of the most difficult aspects of the various terminologies is that even when some authors use the same term, they do not have the same definitions for those terms. As much as possible, I have tried to explain what the various scholars mean by those terms and labels rather than just assuming that they define terms the way I do. Consequently, this has sometimes meant that a fair amount of space has been taken up with definitions, but I hope my occasional sacrifice of brevity has been offset by added perspicuity.

One last note must be made concerning those scholars with whom I interact and those with whom I do not. I know that my thesis is quite lacking in regard to the amount of Hebraists with whom I have interacted. Obviously, such a study could not take into consideration everyone's opinion (for there are many!), but I have tried to take respected representatives from various schools of thought in the hopes that most of the essential hypotheses would be represented.

CHAPTER 2: OVERVIEW OF LINGUISTIC FRAMEWORK

The different meanings ascribed to the BHVS are often a result of the differing linguistic frameworks adopted by scholars. After giving a brief overview of my semantic framework, I compare and contrast this with other frameworks that have been recently used to study the BHVS in order to demonstrate why I chose to approach this study the way I have. Besides my own, the three frameworks I look at are what I call traditional approaches, discourse approaches, and diachronic approaches. Although modern linguistics provides numerous ways to analyze a verbal system, these three ways are currently and historically the most popular within the field of Biblical Hebrew.

As a preliminary note, I follow Comrie (1976) and use the term “situation” as a cover term for any type of action, state, event, etc. depicted by a verb. The situation is what the verb is describing in the real world. So for example, the sentence *Cody ate the eggs* describes what action the person Cody did in the past, and the sentence *Nick is a basketball player* describes a current state of Nick. These and many other types of real-world events/states are referred to as situations throughout this work.

2.1.1 A Semantics-Based Approach

Kratzer gives a helpful description of the purpose of semantics: “It is the task of semantics to describe all those features of the meaning of utterances of linguistic expressions which stay invariable in whatever context these expressions may be used. This invariable element we may call the meaning proper of a linguistic expression” (Kratzer 1977:337). In semantics, then, linguists are attempting to discover the meaning of a word or grammatical morpheme (such as verb forms) that it encodes irrespective of the context. The term “meaning” is sometimes used for the invariable element that Kratzer describes, but it is also sometimes used for the various interpretations that might arise from a form’s

interaction with the surrounding context. In order to prevent confusion, I have used the term “meaning” for the invariable element of a form and the term “function” for the particular interpretation that might arise when the invariable element interacts with the context.

Importantly, the meaning of a particular form does not change with the context, since it is “invariable”,¹ but a single form may have a variety of functions depending on how its invariable meaning interacts with other invariable meanings and the extra-linguistic context. The implication of this is that, though a form may have several different functions, these functions can always relate back to a core meaning, i.e. the functions are derived from the meaning² (or meanings if the form is polysemous).³ Comrie explains this in his work on tense (1985:26): “it is also possible that a tense will receive particular interpretations in particular contexts, but these are always explainable in terms of the interaction of context-independent meaning and context, and do not therefore form part of the meaning of the tense category in question.” In order to discover the meaning of a form, the invariable meaning must be isolated from a variety of different ways a form functions in diverse contexts.

As an example, let us consider the simple present tense in English. In the sentence *Chris builds airplanes*, the verb *builds* is used to show that Chris has a habit of building airplanes at the moment of speaking. We would normally understand this sentence not to mean that Chris is currently in the process of building a single airplane, but he is employed in building airplanes, or he has a hobby of doing so. Hence, the simple present tense in English can **function** to describe habits in present time. Now consider the sentence *Camille*

¹ This holds with polysemous forms as well which have more than one invariable meaning. With polysemous forms, the context often serves to disambiguate the possible meanings to yield the correct interpretation. The context, then, determines which of the form’s meanings are being used.

² Idioms are more complex. If each word in an idiomatic phrase is considered to have its ordinary meaning, this could be considered an exception to the principle that a form’s functions must be related back to the meaning. However, if an idiomatic phrase as a whole is considered to be its own lexical item, the entire phrase would act more like an individual word with its own meaning distinct from the meaning of the combination of words.

³ Although defined in various ways, I have defined polysemy as when a form has more than one invariable meaning. This is not to say that both invariable meanings are always present when the form is used, but that whenever a form is used, either invariable meaning may apply (and it is context that normally makes clear what invariable meaning is being used).

is a student. The verb *is* is also in the simple present tense just like *builds* in the previous example. However, in this case, *is* **functions** to represent a present state rather than a habit. From these two different examples, the **meaning** of the simple present tense (the invariable element of the form) is difficult to ascertain because the **functions** are different. As a semanticist, however, I am claiming that there is a common element to both functions of the form that we may call the **meaning** of the simple present tense. The common element is that the time being talked about is in the present in relation to another reference point (the reference point being the moment of speaking in these examples). This common element stays constant even in different contexts such as these. The challenge in semantics is to determine the common element between all the different functions of a single form, and that is what I have tried to do with the BH forms in chapter three.

Not only can a single form have many different functions, but multiple forms may also be used for the same function. In other words, the same situation can often be described in a number of different ways. Because our attention will be centered on verbs, the morphemes under analysis will always be describing a particular situation (or situations) that is (or are) described in the universe of discourse. (I use the term “universe of discourse” rather than “real world” because imaginary objects may still be referred to in a fictional story, but the “universe of discourse” can of course still refer to the real world.) So, as an example, an answer to the question *What is Chris doing these days?* could be either *He is building airplanes* or *He builds airplanes* where both the present progressive and the simple present tense are taken to be habitual. It is not abnormal, then, to see multiple forms being used for the same function.

One final note should be made about the connection between the meaning of a form and its label. When a certain verbal form is called a “past tense form”, for example, the ordinary understanding of such a label is that the label is describing the invariable meaning of the form. A past tense form would mean that the tense is always past, or the time being talked about is prior to another reference point, usually the moment of speaking. This could be considerably complicated if people mean different things by assigning the label “past tense” or if they mean the same thing but have different labels, and this happens to be a

frequent occurrence in BH studies, as Cook also notes (Cook 2014:80). In order to try to alleviate some of these issues, I have done two things. First, the labels I have assigned to the forms coincide with the forms' meaning(s) that all of the functions can be related to (other than idiomatic functions). Second, I have tried to give clear definitions concerning the broader categories of tense, aspect, modality, and mood.

2.1.2 *Traditional Approaches*

I am considering “traditional approaches” to be those that are similar to the standard grammars for BH, of which Gesenius 1813 is often considered to be the founding example. In such an approach, a label is assigned to a verb form (e.g. past, perfect, future, etc.), and then the functions of the form are listed (just as Bary 2009 explains in chapter one). There are often numerous examples of particular interpretations of the forms in a variety of contexts, essentially providing a number of options for how a form might function. The functions of the form are given priority, not the meaning, and how the functions relate to the meaning is often not discussed. These studies can provide helpful descriptions of the forms' functions—they can serve as guides to constrain the possible functions to a more or less fixed number. Oftentimes, an abundance of information is presented about the functions, but they are ordinarily lacking in explanations about exactly how the context gives rise to the specific interpretation (though they may give the context where a particular function is more prominent). The most recent example of this type of study is Joosten's book *The Verbal System of Biblical Hebrew* (Joosten 2012), in which he provides a wealth of helpful information regarding how the forms function. Yet while there is merit in his work, the explanations for how the meanings of the forms account for the functions are often lacking. I compare and contrast his work with my own in more detail in chapter three.

What the “traditional approach” lacks, a semantics-based study fulfills. An approach grounded in semantics attempts to derive a form's functions from a combination of the central meaning of the form and the context. By understanding how and why the different functions are derived from a central meaning's interaction with the context, the reader is more equipped to correctly interpret a specific form in a specific context.

Moreover, the “traditional approach” does not have any proper criteria for labelling a form (a big problem in studies of the BHVS). Labels are often given on the basis of what function is most common, but this might not accord with the invariable meaning of the form. A more pedagogically helpful approach is to choose a label that coincides with the form’s invariable meaning.

2.1.3 *Discourse Approaches*

Although discourse approaches can vary widely depending on how discourse analysis is done, they often describe how a form functions rather than what it means (in this, they are similar to the “traditional approach” above). The different functions of the forms are explained by appealing to different discourse types; a form might function in one way in narrative and in another way in predictive discourse, and there are “limited degrees of transporting of morphological meanings between the different discourse types” (Longacre & Bowling 2015:2). While it is true that the discourse type (or at least the general context) affects the functions of a verb form, these approaches have a tendency at times to downplay the invariable meaning of the form.⁴ Paying attention to the context is indeed crucial to understanding any occurrence of a verb form, but it is important when doing discourse analysis to consider both the invariable meaning and the context.

Whereas discourse analysis has a tendency to prioritize the context, the semantics-based approach I have presented posits an invariable element in the form that is always present irrespective of the context. Longacre and Bowling have said that it is primarily the interpretation of the context that creates the meaning of the form, but in such analyses, the form’s invariable meaning has a tendency to be marginalized (though Longacre and Bowling do try to minimize this tendency by beginning with the semantic range of each of the forms—their work is discussed more in section 4.5.1). In my approach, the surrounding context interacts with the invariable meaning of the form, which together produce the correct interpretation, so the interpretation of an utterance is dependent upon both the

⁴ For a similar criticism and a larger discussion of the issues, see (Cook 2012:184–185).

context and the elements that do not vary with context, i.e. the invariable meaning(s). I have tried to give both their proper weight.

2.1.4 *Diachronic Approaches*

A more recent trend in studies on the BHVS is to approach it diachronically. John Cook gives a definition of diachronic typology in the preface to his recent book, *Time and the Biblical Hebrew Verb*: “Diachronic typology provides a historical dimension by generalizing not simply about language structures but about the types of structural changes that are evident in languages over time.” (Cook 2012:x). In other words, this framework appeals to the similarities between how a number of languages change over time in the hope that such similarities can shed light on how the language in question is changing. The different functions of a form are accounted for by suggesting paths of development that take place over time. Functions that are not compatible with a certain meaning are explained by appealing to vestiges of older (or occurrences of newer) functions from the prior (or subsequent) meanings. For example, Cook explains the QATAL form in BH by appealing to prior meanings that have not yet died out (Cook 2012:207–bold mine).

...*qatal* exhibits both a perfect and a perfective/simple past meaning, begging the question whether the form should be identified as a perfect, perfective, or simple past conjugation. The simplest explanation for the concurrence of the perfect and perfective/simple past meanings in BH *qatal* is to explain the perfect as **a meaning that persists from the earlier stage when it was its primary meaning.**

This categorization of QATAL is made under the assumption that it has a certain diachronic path of development similar to other languages (shown in Cook 2012:207-208). While this type of explanation could be true given a diachronic framework, it is not, by itself, an adequate basis for a synchronic analysis of the invariable meaning. However, it does suggest something about the invariable meaning(s): Bybee, Perkins, and Pagliuca, in their seminal work on diachronic development of verbal forms, state that their work is useful to a “language-specific synchronic analysis” in that the forms should be “polysemous in predictable ways” (Bybee, Perkins & Pagliuca 1994:300). If a certain form

may either have perfective or perfect meanings at a particular time because of its diachronic path of development, then the form is synchronically polysemous, no matter what it might have developed from or what it might be developing to.

This brings up another question: is the invariable meaning of a grammatical morpheme or word synchronic or diachronic in nature? When dealing with the question of the meaning of a morpheme, it is necessary to give precedence to what it means at the time of usage and not to what it meant in the past. To do otherwise is commonly known as the “etymological fallacy” (Lyons 1977:244).

Put simply, this fallacy stems from a failure to recognize that a word’s (or morpheme’s) current meaning is not necessarily equivalent to (and may even be very different from) a word’s prior meaning. The most basic tenet in diachronic studies, that words/morphemes change over time, suggests why etymology does not provide an accurate analysis for the meaning of morphemes at the time of utterance: the morpheme could have **changed** meanings, so the previous meaning is no longer relevant to the form’s current meaning (Stubbs 2001:172). This rule applies to both words and grammatical morphemes, such as a past tense marker. For example, Bybee, Perkins, and Pagliuca show that the English future tense marker *will* developed from a morpheme that expressed desire, and this is how it was principally used in Middle English and Early Modern English (Bybee, Perkins & Pagliuca 1994:255–256). But of course, any speaker of English knows *will* does not only deal with desire as it is currently used today. The sentence *It will rain tomorrow* does not ordinarily express a desire in any way, but only a prediction. It would be erroneous to say that the true meaning of *will* is to express desire because that is what it meant in older forms of English.

With all of this being said, it is important to distinguish between the meaning of a form and the label used to represent that meaning. While meaning is not diachronic, some scholars may choose to label a form based on functions that have died out completely or almost completely. This seems unhelpful to me, but choosing a label on such a basis is not the same as positing a meaning for a form based on what it meant previously (see 3.4.7.1 for a larger discussion).

2.1.5 *The Corpus*

Although the synchronic vs. diachronic discussion in general linguistics has many complexities, there is even more to consider in the BHVS. The problem with the Hebrew Bible is that the corpus itself is diachronic, since it actually was written over a span of at least hundreds of years. Those studying the verbal system in the entire corpus recognize a difference between what is called Classical Biblical Hebrew (CBH) and Late Biblical Hebrew (LBH) as well as possibly another earlier stage of development, labelled “archaic,” found in several poems (Joosten 2012:377). This makes determining the meaning of a form much more difficult, since the form’s meaning must be evaluated at the time of usage, and the time of usage varies within the corpus. While the nature of the corpus does indeed make a synchronic semantic analysis more difficult, it is still necessary to conduct a synchronic analysis in order to posit a meaning for the form because a form’s meaning is still related to the time of use. With this in mind, the diachronic nature of the Hebrew Bible might make finding one central meaning for each of the forms impossible due to diachronic change. Thus, my findings are most applicable to the books in the Hebrew Bible in CBH.

Before talking about a specific verbal system, a theory of tense, aspect, mood, and modality must be developed. In the rest of the chapter, I attempt to lay out the general meaning of these categories (and how they relate to the larger discourse). An adequate understanding of these categories is essential to understanding my analysis of the BHVS.

2.2 Tense

Traditionally, tense has been defined as “the grammaticalisation of location in time” (Comrie 1985:1). Of course, this leaves open what exactly is “located in time”. Klein explains that tense “imposes a temporal constraint on the assertion: it narrows down the assertion to some particular time” (Klein 1994:3). So, it is the “assertion” that is “located in time”. This leaves us with the fuller definition of tense as the grammaticalization of the location of an assertion in time. By “grammaticalisation”, Comrie means that a form’s location in time is marked by some grammatical morpheme, i.e. there is an affix, auxiliary,

or grammatical particle that indicates this relationship (Comrie 1985:10). Thus, we can again redefine tense as the use of a grammatical morpheme to indicate the location of an assertion in time. Yet, this description is still incomplete. If an assertion is to be located in time, it must be related to some other reference point. It is not just that the assertion is located in time, but it is located in time in relationship to another time interval or point. Again, we can expand our definition of tense to the following: the use of a grammatical morpheme to indicate the location of a speaker's assertion to a particular time in relation to another reference point. So, a past tense form must necessarily locate the assertion in time as prior to some reference point, and it must have some grammatical morpheme to mark this relationship. Hence, the English past tense form ordinarily indicates that the time about which the assertion is made is prior to the moment of speaking (the usual reference point for the English past tense), and it has the affix *-ed* to mark this temporal relationship.

While this definition is fairly straightforward, there are several difficulties when describing tense that must be taken into consideration. First, the word "tense" is often used in different ways. Sometimes it is used to refer to the forms of a verb in a given language. With this usage, English would have at least two tenses, the past tense form and the present tense form. The past tense form ordinarily has an added *-ed* on the end of the verb, e.g. *walked*, and the present tense does not have an ending except in third person singular, e.g. *walk(s)*. I do not use the term in this way in the present work. Whenever I talk about the different inflections of a verb, I use a term such as "form" (as I have done above).

Second, tense is not equivalent to the temporal interpretation of a clause. A past tense may be used when describing a situation in the past, but aspect may also be used when describing a situation in the past (though the past temporal interpretation could arise from other contextual factors or indirectly from the form's aspectual value). This may be difficult for English speakers to grasp because we actually do use a past tense form to describe a past situation. However, if a form only encodes aspect, it does not mean the time being talked about by the speaker is completely random. This is clearly evident in tenseless

languages.⁵ In these languages (e.g. Mandarin, Yucatec, etc.) the speaker may still refer to a situation in the past, but in such a case, tense is not the *reason* for that particular interpretation of the verb. In other words, a form might **function** to talk about a situation in the past, but the form itself might not **mean** that the situation being talked about is always in the past as a true past tense would. So, a language may use other means (like the default interpretation of aspect or temporal adverbials) besides tense to indicate the temporal relationship between the assertion and the reference point.

Having explained in more detail what tense is not, let us go back to the definition of tense already established. Tense is the use of a grammatical morpheme to indicate the location of a speaker's assertion to a particular time in relation to another reference point. This leaves us with two time intervals or points: the location of a speaker's assertion and another reference point/interval. Crucially, the situation described by the verb is not one of these time intervals. Tense does not directly involve the Time of the Situation (TSit); it is actually a relationship between some reference point and the time that is being talked about, or the time about which the assertion is made (Klein 2010:24). For the reference point, I adopt the term used in von Steutterheim, Carroll & Klein (2003:6) and call this the Temporal Anchor (TA). For the time being talked about, I adopt the term used in Klein (1994:4) and call this the Topic Time (TT). Placing these time intervals/points into our definition of tense, we can again redefine tense as the use of a grammatical morpheme to indicate the location of the TT in relation to the TA. The relationship between the TA and the TT for past, present, and future tense is shown in Figure 2 (the line shown in brackets is the TT, and the line with the arrows is the timeline).

⁵ For more on tenseless languages (and justification that they actually are tenseless), see (Klein & Li 2009:83–128) and (Lin 2012:669–695).

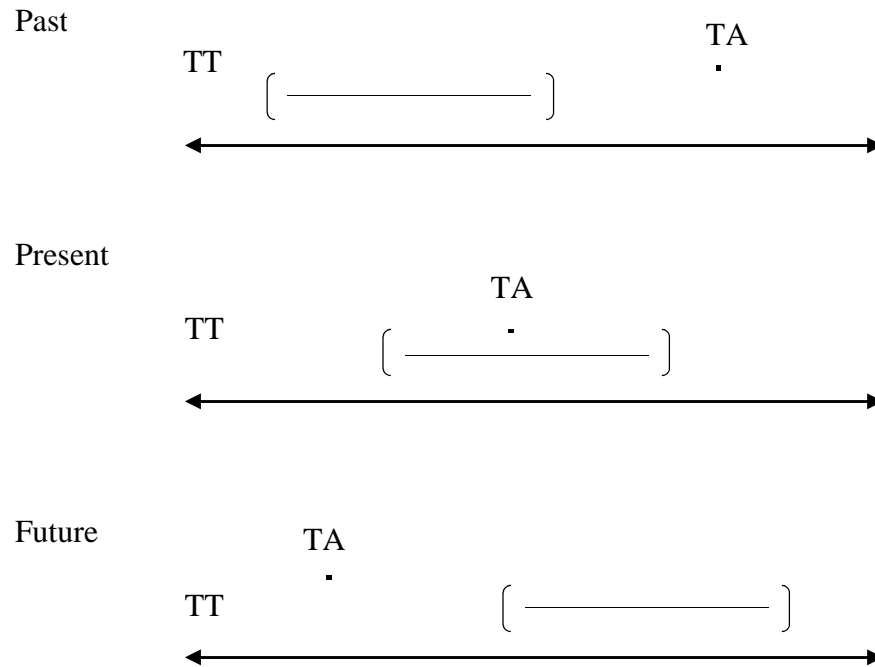


Figure 2: Past, Present, and Future Tense Time Structures

2.2.1 Temporal Anchor

The TA is named after its function. It is any time point or interval that functions as the anchor, or reference point, to which the TT is related. Klein gives three characteristics of the TA. First, this time interval or point does not have to be specified in the text itself, but it might be taken from the extra-linguistic context. Second, there are several options for the TA: it may be the moment of speaking, an adverbial phrase, a subordinate clause, etc.⁶ Third, the TA can change widely in a single text, even between sentences, though it may also remain constant (von Stutterheim, Carroll & Klein 2003:6). Some forms may

⁶ A more comprehensive theoretical analysis of tense would also include another possible reference point to account for complex tenses. Bohnemeyer describes the function of this extra possible reference point, which he labels as Perspective Time (PT): “In their capacity of acting as relata of topic times, however, perspective times can be understood as a generalization over utterance times and anaphorically traced reference times” (Bohnemeyer 2014). I have not included this extra reference point because it was not relevant in my analysis of the BHVS, but it could be when looking at a wider corpus.

specify the TA to be equivalent to the Time of Utterance (TU), but other forms may allow the TA to be some other reference point.⁷ Comrie calls the former absolute tenses and the latter relative tenses (see his discussion in Comrie 1985:36-63). If the tense was absolute, a past tense form would normally indicate that the time being talked about was in the past relative to the moment of utterance. So, the TA would always be equivalent to the TU. If the tense was relative, a past tense form could indicate that the time being talked about was in the past relative to the moment of utterance *or* relative to some other time in the context. So, the TA might be the TU, but it also might be some other time period or interval. With this definition of tense, a relative present tense can still be described as a true present tense (i.e. the meaning is that the TA and the TT overlap) even though the form can be used in the description of a past situation relative to the TU.

2.2.2 *Topic Time*

The other time interval involved in tense besides the TA is the TT. As noted earlier, Klein defines the TT as “the time span to which the speaker’s claim on this occasion is confined” (Klein 1994:4). In other words, it is the time span being talked about. Importantly, nothing is said about the situation other than what is claimed during the TT (Klein 1994:4). For example, Klein (2014:956) gives the example *The window was open* to demonstrate this. Uttering this sentence does not exclude the possibility that the window is still open, so no claim is made about the present moment. Thus, if tense relates the TA to the TT, then all that is being claimed by the above example is that during the relevant span of time prior to the moment of speaking, the window had the property of being open. Nothing is said about any other time interval.

The TT may be specified by an adverbial phrase, such as *In 1982*, or it may be determined by contextual factors. Tense constrains the location of TT, without fully specifying it. So in the example above, the sentence *The window was open* constrains the

⁷ The two terms TU and TA often have a considerable amount of overlap, but whereas the former describes a characteristic of a time period (as being equivalent to the moment of utterance), the latter describes the function of a certain time interval.

TT to some time interval before the moment of utterance, but it does not specify when in the past the event took place. In English, this time can be specified by temporal adverbials, so in a sentence like *From 2-3 PM yesterday, the window was open*, the TT is specified as being in the past from the tense of the verb, but the exact interval in the past is also specified by the adverbial phrase.

2.3 Aspect

Comrie's seminal work on aspect produced its classic definition: "aspects are different ways of viewing the internal temporal constituency of a situation" (Comrie 1976:3). This definition describes grammatical aspect, but aspect has actually been divided into two separate, but related, areas of study: aktionsart (sometimes called lexical aspect) and grammatical aspect. The former deals with characteristics of the situation being described. So in the sentence *Tim is building a house*, the situation of building a house has certain properties associated with it, for example a natural endpoint when the house has finally been built. On the other hand, grammatical aspect deals with how the situation is being described. Using the same example, the present-progressive construction *is building* should be understood as indicating that Tim is presently in the midst of building the house. He has already started, but he has not yet finished, so the situation is being described as in progress. Both aktionsart and grammatical aspect will be important in my analysis of the BHVS, so both are treated below.

2.3.1 Aktionsart

Those studying aktionsart know that sometimes a multitude of distinctions are made among the characteristics of situations. I use the most widely known system, which is based on the presence or absence of a list of features.

2.3.1.1 Aktionsart and Binary Features

The most common treatment of aktionsart classifies situations by binary features, i.e. several features that are either present or absent in the situation. The primary distinction is between telic and atelic predicates, which are defined respectively as “action[s] tending toward a goal” and those that “are realized as soon as they begin” (Garey 1957:106). Predicates that are “tending toward a goal” have a natural endpoint inherent in the situation, such as in the sentence *Jacob built a house*. The goal, or endpoint, is the completion of the house, and that endpoint is lexically specified in the predicate *build a house*. On the other hand, atelic predicates that “are realized as soon as they begin” do not have a natural endpoint inherent in the situation, such as in the sentence *Ashley was skiing*. The situation of Ashley skiing is realized as soon as Ashley begins skiing, so it is atelic (or the end of her skiing is not lexically specified). The classic test to determine the difference between telic and atelic predicates is whether they can be combined with a *for* adverbial or an *in* adverbial (Dowty 1979:56). Atelic predicates combine with *for* adverbials, e.g. *I ran for thirty minutes*, and telic predicates combine with *in* adverbials, e.g. *Jack drove to Maryland in four hours*. Another characteristic of telic predicates noted by Klein is that they have both a Source State (SS) and a Target State (TS) (Klein 1994:86). The SS is the beginning point of the situation, and the TS is the endpoint. So in the telic predicate *drove to Maryland*, the SS is wherever *Jack* began driving, while the TS is where *Jack* stopped—Maryland. The other two common features in this binary perspective are “change of state and temporal extent” (Filip 2012:726), i.e. the categories of static and durative. The different classifications are presented in Figure 2 (Smith 1997:20).⁸

⁸ These classifications are not all agreed upon in the literature, though many of the basic distinctions are standard.

Situations	Static	Durative	Telic
State	+	+	-
Activity	-	+	-
Accomplishment	-	+	+
Achievement	-	-	+
Semelfactive	-	-	-

Figure 3: Aktionsart Classes

The distinction between states (+ static) and non-states (- static) is whether the situation can answer the questions “What happened?” or not (Jackendoff 1983:170–171). A state, such as *Fred knows the answer*, cannot answer that question, whereas a non-state, such as *Pat played cards*, can answer that question.

The difference between accomplishments and achievements is whether the telic situation is preceded by a process that takes time or not. So, accomplishments are + durative, and achievements are – durative. For example, the sentence *Greg built a fence* describes a situation which takes time in order for the end result to happen, i.e. it takes time for the situation to be completed. On the other hand, the achievement predicate such as *John noticed the painting* (Dowty 1979:58) is not preceded by any process before the end of the situation is realized. This means that Greg could be building a fence, yet never finish it, but John can’t be noticing a painting without actually being in the state of having noticed it.

States can be further subdivided into those that are permanent and those that are temporary. Following Carlson (1977), I refer to the former as individual-level states and the latter as stage-level states. An example of an individual-level state is *Francisco is Spanish* because there is no possibility for *Francisco* to be anything other than *Spanish*. On the other hand, a stage-level state, such as *Francisco is angry*, can change.

As a significant qualification, aktionsart is not solely about individual verbs, but includes the entire predicate, i.e. the verb phrase, including the verb and its arguments and adjuncts (Gvozdanovic 2012:782). By “the verb phrase”, I mean that aktionsart deals with more than just the verb—it is also affected by prepositional phrases, direct objects, adverbial phrases, etc. because once these are added, the situation being described changes.

For example, the sentence *I walked* has no inherent endpoint (of course, the situation will end, but there is nothing to indicate at what point the walking will stop), but the sentence *I walked to the store* has an endpoint, i.e. it ends when I arrive at the store. The argument *to the store* at the end of the sentence provides an endpoint that the verb *walked* does not ordinarily specify. Hence, I use the term “predicate” to refer to the entire meaning of the verb phrase, and I avoid the use of the word “verb” when talking about aktionsart because “verb” does not explicitly include the entire verb phrase associated with the verb.

2.3.1.2 The Duration Principle

The Duration Principle is discussed by Egg in the context of reinterpretation. Essentially, he explains that real world knowledge of the duration of a situation (e.g. some length of time ordinarily associated with the situation, like two hours) interacts with the type of predicate (such as state, activity, etc.) to reinterpret an utterance in a sensible way (Egg 2005:189). This is best illustrated with an example. Egg explains that *Max played soccer on the beach for three months* cannot be interpreted literally because the ordinary duration of the situation *play soccer* cannot last for an entire three months (Egg 2005:190), since the usual duration is a few hours. The sentence must be interpreted habitually, i.e. it is normally understood that Max played soccer multiple times over those three months. This reinterpretation is not due to the *for* adverbial being incompatible with the predicate; *play soccer* is an atelic predicate, which ordinarily combines with a *for* adverbial. The reason for the reinterpretation to a habitual situation is due to a mismatch between the duration specified by the adverbial (three months) and the duration that is normally associated with the activity *play soccer* (a few hours). In this way, real world knowledge of the duration (i.e. the usual length of a soccer game) combines with the adverbial to create the correct interpretation. The implication of this is that aktionsart and grammatical aspect are not the only relevant factors for the correct aspectual interpretation of an utterance. World knowledge about the ordinary length of the situation must also be taken into consideration.

2.3.2 Grammatical Aspect

As with tense, I follow Klein's definition of aspect as a relationship between the TT and the TSit (Klein 1994:99). In other words, it is the relationship between the time of the assertion and the time of the situation in the real world. Figure 3 depicts both tense and aspect and the relationships involved in both. The TSit is depicted by a horizontal line under the timeline. The arrows show what relationships are involved with tense and aspect. So with tense, the arrows point to the TA and TT (the two times involved with tense), and with aspect, the arrows point to the TT and TSit (the two times involved with aspect). The tense in the diagram is past because the TT precedes the TA, and the aspect is perfective because the TSit is included in the TT. Thus, this could represent a sentence like *Kathy cooked dinner*.

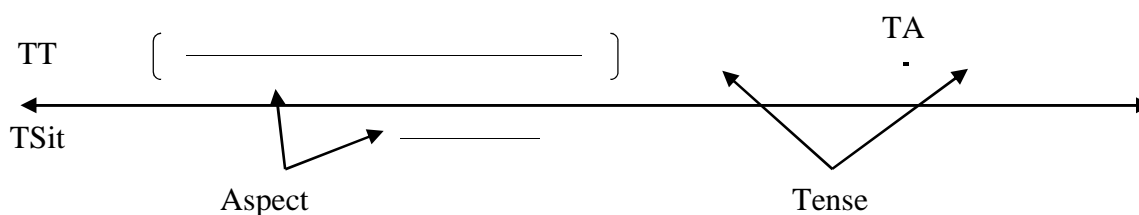


Figure 4: Tense and Aspect Time Structure

The most basic aspectual distinction is between imperfective and perfective (not to be confused with perfect aspect). Each of these are treated in turn below.

2.3.2.1 Perfective

Perfective aspect specifies that the TSit is included within the TT (Klein 1994). This is depicted in Figure 5.

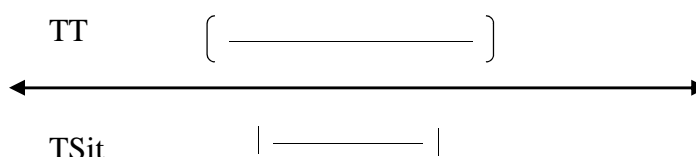


Figure 5: Perfective Aspect Time Structure

The vertical lines at the beginning and end of the TSit indicate that these boundaries are included in the TT. This means that perfective aspect “always conceptualizes effectuation of a relevant inherent boundary” (Gvozdanovic 2012:788). In other words, a perfective situation always specifies that the entire predicated situation (both the beginning and end) is included in the time being talked about. In Klein’s aktionsart theory, a telic predicate combined with perfective aspect always achieves the Target State. Hence, the sentence *Rachel closed the lid* always means that the lid reached its TS and is actually closed during the TT, since the sentence is perfective.

This definition of perfective aspect suggests a tendency for the perfective to be used either in the past or the future, but not in the present. This follows from the nature of the present. The present moment is not an interval, but it is a continuously progressing point, and as a point, it has different characteristics than the past or future (which are both intervals). Obviously, points have a much shorter duration than intervals, so a TSit that is entirely included within a point must also have a very short duration. Bary points out that this requirement makes a perfective-present rare (Bary 2009:125) because most TSits are longer than a single point (and if punctual situations are being described, they normally aren’t described as they are happening in the present moment).⁹ Because of this constraint, the default interpretation for perfective verbs is either in the past or in the future (Smith 2008).

⁹ This time structure does, however, characterize performatives, which combine a short TT in the present with the TSit included in the TT. For more on performatives, see section 2.5.1 below.

2.3.2.2 Imperfective

Imperfective aspect specifies that the TT is a proper subinterval of the TSit (Klein 2010:25). This is depicted in Figure 6.

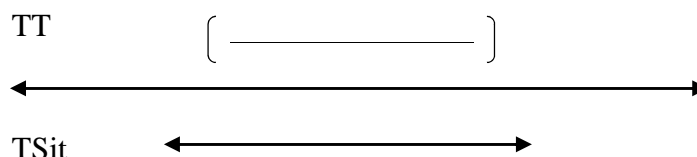


Figure 6: Imperfective Aspect Time Structure

The arrows extending beyond the TT show that an imperfective situation begins before the TT and ends after the TT. In this case, the situation is usually described as incomplete because the end of the situation is not included within the TT. However, this does not mean that the situation was never actually completed in the real world, but only that an imperfective verb says nothing about the end of the situation. Thus, the sentence *Jessica was cooking between 2 and 4* does not mean that she stopped cooking at 4, but it simply means that during the time span specified she was in the midst of cooking. For telic predicates, the TS is not necessarily reached when imperfective aspect is used. Comparing this to the example used above for perfective aspect, the sentence *Rachel was closing the lid* does not mean that the lid ever actually got closed. In this case, all that is being said is that Rachel was in the middle of the process of closing the lid at some past time; hence she was in some subinterval of the entire situation.

Imperfective aspect is considered by some to have different subcategories (see Comrie 1976:25 for a chart and see Mair 2012:808 for a discussion). All that is relevant for BH studies is comparing imperfective and the progressive. Although some have tried to draw a semantic distinction between the progressive and imperfective aspect, the difference is often in what kinds of predicates progressives combine with and not meaning

(progressives don't combine well with states; see Gvozdanovic 2012:781).¹⁰ Therefore, I take the semantics of progressives and imperfectives to be equivalent.¹¹

2.3.2.3 Perfect

The perfect aspect specifies that the TT follows the TSit (Klein 1994). This is shown in Figure 7.

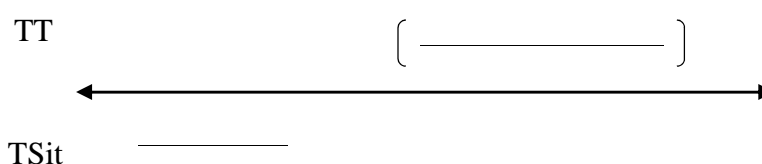


Figure 7: Perfect Aspect Time Structure

A plain line (without arrows or boundaries) is used for the TSit because the perfect can be combined with either imperfective or perfective aspect.¹² Because perfect is an aspect (under this analysis), the perfect can also be combined with any tense, i.e. past, present, or future. In English, then, we have contrasts with aspect in the perfect with *I have been working* (present imperfective perfect) and *I have worked* (present perfective perfect), and we also have contrasts with tense in the perfect with *I had worked* (past perfective perfect), *I have worked* (present perfective perfect), and *I will have worked* (future perfective perfect). Since the present perfect situates the TT in the present, it cannot be combined with adverbials that set the TT in the past, e.g. **I have driven to the store yesterday* is ungrammatical, but *I have driven to the store today* is acceptable.

Comrie gives four different ways that the perfect aspect can function across languages: perfect of continuing result, experiential perfect, perfect of persistent situation,

¹⁰ While Comrie's chart is helpful as a broad generalization, I do not consider habituais to be a type of imperfective to the exclusion of the progressive. Carlson (2012:838) shows that habituais often co-occur with both progressives and imperfectives.

¹¹ However, because imperfective aspect combines with more aktionsart types, it also has a broader range of functions than the progressive. In either case though, the TSit extends beyond the TT, so the situation is presented as in the midst of occurring.

¹² But Comrie does note that there is a tendency for perfects to be combined with perfectives rather than imperfectives (Comrie 1976:63–64).

and perfect of recent past (Comrie 1976:56–60). Kiparsky also notes a fifth function (mentioned by Comrie 1976, but not treated as a separate function) of the perfect aspect, the present state, often resulting from an event (Kiparsky 2002). Not all languages can use the perfect in all five ways. Figure 8 depicts the five functions of the perfect (the dotted line is the result state).

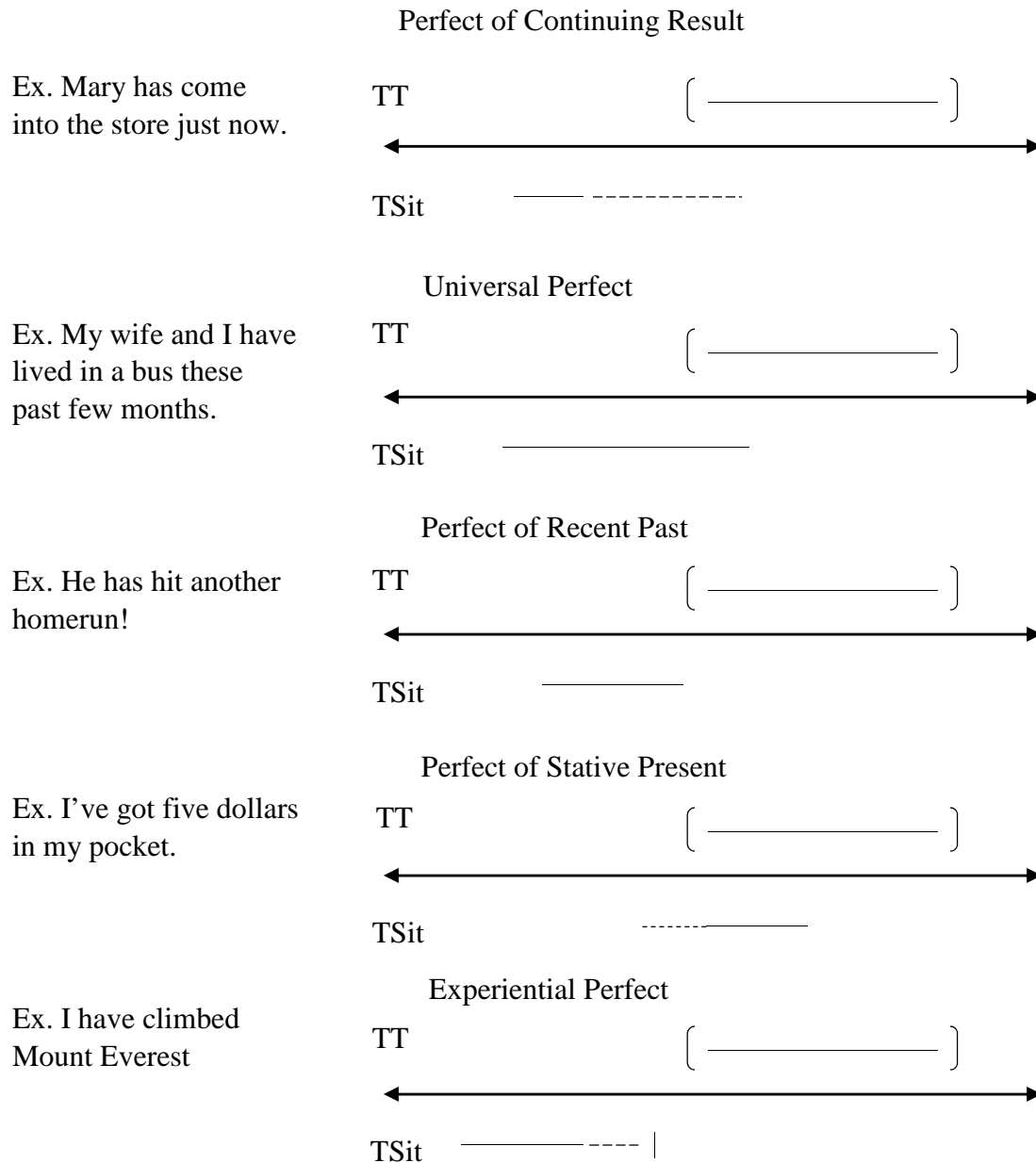


Figure 8: Time Structures for uses of Perfect Aspect¹³

In the perfect of continuing result, the result state (the poststate in atelic predicates and TS in telic predicates) extends into the TT, e.g. *Mary has come into the store just now*. In the universal perfect, the situation itself extends into, and partially overlaps with, the

TT, e.g. *My wife and I have lived in a bus these past few months*. In the perfect of recent past, the situation is located so close to the beginning of the TT that it is linguistically represented as overlapping with it, e.g. *He has hit another homerun!* In the perfect of stative present, the situation itself is the resultant state from some action, and this state overlaps with the TT, e.g. *I've got five dollars in my pocket*.¹⁴ All of these contrast with the experiential perfect in which the TSit does not overlap in any way with the TT, e.g. *I have climbed Mount Everest*. Note, however, that the experiential perfect is not equivalent to a past tense because the TT is still in the present. It represents an action that is wholly in the past, but the action has some relevance for the present moment, since the TT is in the present.

2.3.2.4 Habituals and Generics

I am treating habituals under aspect because they fundamentally involve a relationship between the TT and the TSit (and I treat generics with habituals because the two are related and often lumped together). I adopt the analysis of habituals from the work of Comrie (1976), who defines habituals as a “characteristic situation” of a certain time period. Because the situation is “characteristic,” it involves more than just repeated situations (which would be an iterative situation; see Carlson 2012:829 for the distinction between iterative and habitual). In terms of the relationship between the TSit and the TT, habituals are unique in that they have a very large TT (Bary 2009) and many occurrences of the TSit. This is illustrated in Figure 9.

¹³ The Perfect of Stative Present is only compatible with the *I've got...* construction in English (cf. Jespersen 1931:47). Other languages with the Stative present function, such as BH, have many different stative verbs for this use.

¹⁴ More extensive examples can be found in a language like Koiné Greek (Wallace 1997:579-580). Wallace gives an example in Mark 10:19, which should be translated as “You know the commandments” with the verb for “know” being in the perfect (Wallace 1997:580).

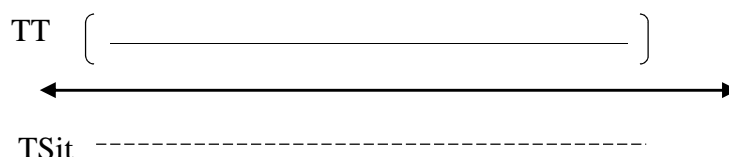


Figure 9: Time Structure for Habituals

The requirements for habituals to have a large TT and multiple occurrences of the TSit can be met in a number of ways. For example, it may be done with adverbials and a form that normally gets a perfective interpretation, e.g. *Joseph threw bread to the ducks every Saturday*. It may also be done with a modal form, e.g. *Whenever he went to the store, Pat would walk up and down the aisles looking at all the food*. Some have even posited a habitual form, e.g. *Mark used to play basketball* (Comrie 1976:27).¹⁵ Whether or not a true habitual form exists in a given language, the semantics of habituality makes it compatible with a number of different forms (Carlson 2012:833).¹⁶

The difference between habituals and generics has been described in different ways. I follow Carlson who defines generics as generalities about situations and a class (Carlson 2011:1154). A generic statement is normally understood to mean “something to the effect that there is a strong tendency for this type of situation...to recur, without direct reference to any particular situation” (Carlson 2011:1154). So for the sentence *Dogs chase cats*, it means that there is a strong tendency in the universe of discourse for this situation to recur. Yet, generics also generalize over classes as well (Carlson 2011:1154), since one dog is not in view, but an entire class of animals is being discussed. This is distinct from habituals which normally don’t talk about class, but rather make a statement about an individual or

¹⁵ This particular form for the habitual is debated. See (Binnick 2006) for an argument on why *used to* should not be considered habitual aspect.

¹⁶ Nevertheless, Carlson notes a tendency for imperfectives and progressives to be used in habituals cross-linguistically (Carlson 2012:838). On the other hand, Comrie makes habitual a type of imperfective, but he himself admits that perfective habituals are possible (1976:30-31).

a group of individuals. For example, *Skamp chases cats* refers to a single dog *Skamp* that has a particular habit, so the sentence is habitual rather than generic.

2.4 Modality

Modality is a category that has been defined and treated in a number of different ways. I follow the definition given by Kai Von Fintel, who says that “Modality is a category of linguistic meaning having to do with the expression of possibility and necessity” (Von Fintel 2006:20). In the following discussion of modality, I am particularly concerned with grammatical markers of possibility and necessity rather than lexical items such as *possible* and *necessary*. Languages express modality in various ways, such as with auxiliaries, particles, and verbal affixation, but in English, modality is expressed with modal auxiliaries, such as *may*, *must*, *can*, *could*, etc. There are two basic components involved in modal meanings: the strength of modality and the type of modality.

Strength corresponds to whether a proposition is possible or whether it is necessary (probable may also be included). A proposition stated as a necessity is stronger than a proposition stated as merely a possibility. So, assuming *might* and *must* are being used in the same context, *might* would indicate that the proposition is possible, and *must* would indicate that the proposition is necessary. Consider this minimal pair as an example (spoken by *Jordan’s* mother as she waits for a text message when he arrives back at college): *Jordan must be home by now* and *Jordan might be home by now*. The mother feels more certain that Jordan should be home when *must* is used than when *might* is used.

Type corresponds to what sort of possibility or necessity is under discussion. For example, a context in which a mother is speaking sternly to her child will yield a necessity modal dealing with obligations in *You must do the dishes before reading your book*. The mother is stating that the child is under a necessary obligation to do the dishes. However, this does not mean that *must* always has to do with obligations. *Must* can also be used for other types of modality depending on the context. Consider a sentence like *He must be in the office* uttered by an employer’s boss. This could either be about the boss’s knowledge of the current circumstances or about an obligation his employee is under. The person

spoken of might ordinarily be in the office at that time—this would be an example of epistemic modality (the type of modality that describes what is possible or necessary in light of what the speaker knows). However, it could be that the person spoken of is required to be in the office at the present moment, and the boss might use such a requirement not being met as a reason for firing the employee—this would be an example of deontic modality (the type of modality that describes what is possible or necessary in light of what the relevant authority requires). For most of the modal auxiliaries in English, the type of modality is largely determined by context (Kratzer 1977:342). There are other types of modality, such as dynamic modality (describes what is possible or necessary in light of the abilities of the agent in the universe of discourse). Whatever is present in the surrounding context, both linguistic and extra-linguistic, helps to determine the type of modality for a modal that can be used with multiple types, such as *must*. In other languages, the type of modality could be specified by the form itself, and context would disambiguate the strength being used (e.g. in Salish—see Matthewson, Rullmann, & Davis 2006). Still other languages specify both the strength and type of modality (Van der Auwera & Ammann 2013).

In keeping with my criteria for labelling forms based on their invariable meaning, a true modal form would need to lexically specify either the strength or type of modality, if not both. However, a language may express modality by other means besides a specific verb form or auxiliary. Every language will have some means to express modality, but this means could be either grammatical or lexical and may or may not include a modal verb form.

2.5 Mood

The relationship between mood and modality in general linguistics is often hard to determine. One reason is because of terminological differences between authors that often lead to confusion. Another reason is that sentential mood and verbal mood (discussed below) are often lumped into the same category. I explain the relationships between the three categories of verbal mood, sentential mood, and modality at the end of this section,

but it must be remembered that modality strictly has to do with possibility and necessity. I do not define “mood” apart from the categories of verbal mood or sentential mood because authors in general linguistics are ordinarily referring to one of these two categories when the term “mood” is used.

2.5.1 *Sentential Mood*

Sentential mood is a semantic category that links a particular sentence type to a type of speech act. The most common sentence types in English are the declarative, imperative, and interrogative (Boisvert & Ludwig 2008:864). “Sentence type” is essentially equivalent to a sentence’s form (analogous to a particular verb’s form). This “form” might be marked by intonation (such as a rising intonation for questions), a particular word (like a word signaling a question), syntactic changes, etc. A “speech act” is what it sounds like: it is an act performed by making an utterance. Searle explains that speakers can act by “making statements, giving commands, asking questions, making promises, and so on”, and these are called “illocutionary acts” (Searle 1969:16, 24).¹⁷ The different sentence types already discussed have a “sentential force” associated with them, i.e. an illocutionary act that the words themselves, independent of the context, normally carry (following Portner 2009:262-263). So, a sentence in declarative sentential mood would assert something about the world according to its sentential force, whereas a sentence in imperative mood would direct someone in the world according to its sentential force (Boisvert & Ludwig 2008:867). Of course, a sentence in declarative sentential mood may also be used to direct someone, e.g. *It is really cold in here* (used to direct someone to turn the heat on), but this is a result of the shared context between the speaker and hearer and is not a necessary implication of the sentence form (Searle 1979:31-32). This intended speech act by the speaker is called the illocutionary force of an utterance. Portner gives a

¹⁷ Austin distinguishes between locutionary acts, illocutionary acts, and perlocutionary acts. A locutionary act is “roughly equivalent to uttering a certain sentence with a certain sense and reference”, an illocutionary act is the “performance of an act *in* saying something”, and a perlocutionary act is “what we bring about or achieve *by* saying something, such as convincing, persuading, deterring, and even, say, surprising or misleading” (Austin 1975:99, 108).

helpful explanation of the distinction between sentential force and illocutionary force (2009:262-263):

Sentence mood [or sentential force] is the conversational use conventionally associated with a particular grammatical category, the clause type. As such, all declaratives have the sentential force of assertion, even though in a particular situation a declarative may be used to ask a question or give an order. In contrast, the illocutionary force is the type of communicative act which the speaker intends on a particular occasion.

Importantly, a speech act performed by the utterance always occurs at the TU because uttering the sentence simultaneously performs the associated act in the real world. For example, the sentence *George Washington was the president of the United States* is an assertion about the real world when it is uttered, so it must be evaluated at the TU. If said in 1780, the declarative sentence expresses a false proposition (he wouldn't become president until 1789), but when said in 1990, it is true. The very act of uttering a sentence in declarative sentential mood makes a claim about the universe of discourse which must be evaluated at the TU.¹⁸ This principle holds regardless of which sentential mood is being used, so whether a speaker is making an assertion, giving a command, or asking a question, these acts are all performed at the TU. The sentential force for imperative sentential mood (to direct) gives a command when it is uttered (though the time when the obligation must be fulfilled, the TT, is normally in the future). Just like declaratives that make a claim about the universe of discourse which may be either true or false at the TU, imperatives also give a command at the TU that may be either obeyed or not whenever the obligation holds (the TT).

2.5.2 Verbal Mood

A verbal mood is an inflection on a verb form that marks a type of modality or sentential mood (Portner 2011:1262). Unlike modality and sentential mood, it is primarily

¹⁸ This includes propositions that make a claim about any time. Declarative sentences in future tense still have a truth value that may or may not hold when the sentence is uttered. The sentence *Les will faint this Sunday* must be evaluated as true or false in the current moment, though the situation would have to take place in the future for the statement to be true at the TU.

a distinction in form rather than meaning, so while all languages should have some way to indicate possibility and necessity (modality) or some way to ask questions and give commands (sentential mood), not all languages will have distinct verbal moods. Examples of verbal moods include the subjunctive and optative moods in Ancient Greek. Although this is a common category across languages, how to categorize the semantics of particular verbal moods, especially the non-indicative, non-imperative moods, is still an open question in general linguistics. In my discussion of verbal mood, I discuss only that which is relevant to my treatment of the BHVS, and that is what is commonly called irrealis mood.

2.5.2.1 Irrealis Mood

Although heavily debated in the semantics literature, irrealis is an important cross-linguistic category. Timberlake describes this common phenomenon: “After the unmarked mood—indicative or realis—and the imperative, it is not uncommon to distinguish another mood. It tends not to be used for any single realm of modality, but is an all-purpose mood used to express a range of less-than-completely real modality when the degree of irreality rises to some threshold” (Timberlake 2007:326). I consider this third mood to be semantically equivalent to the subjunctive mood, but I prefer the label irrealis because, though this mood is often found after certain subordinating particles, it is not limited to these syntactic contexts in every language. It is difficult to determine a semantic criterion for the irrealis category because of the wide range of variation across languages with irrealis forms, but it is best to describe them as occurring with a certain type of “multifunctionality pattern”, or a typical set of uses.

These uses for the “multifunctionality patterns” only mark strong tendencies and not definite rules. Furthermore, the functions of irrealis markers may be subdivided into two main types of patterns that commonly occur across languages (though some languages do mix these patterns), and these different patterns help to determine the form’s range of meaning (Cristofaro 2012). “The first, and most widespread pattern is one involving states of affairs that are not presented as positively realized at some reference point, but may possibly take place at a later time, as is the case for example with futures, conditions,

wishes, obligations, commands, and prohibitions...Another major type of multifunctionality pattern involves states of affairs that failed to take place, including unsuccessful attempts, unfulfilled obligations and desires, and counterfactual conditions” (Cristofaro 2012). The former can be described as an irrealis morpheme that specifies that the situation is unactualized, while the latter would specify that the situation described is unreal, or frustrative.¹⁹ Thus, I have used these two labels (unactualized and frustrative) for the multifunctionality patterns that Cristofaro describes.

And yet, though irrealis verbal mood should be considered a real cross-linguistic category with its own semantic properties, there has yet to be a unifying semantic description given to irrealis forms that accurately describes these forms’ range of functions.²⁰ Because of this, it is most useful to use the general notion of non-actualized situations for irrealis forms and, in order to determine whether a particular form should be labelled irrealis, to compare the form’s distribution of functions to other irrealis forms. At the same time, it must be remembered that some variation between languages is to be expected with this category.

2.5.3 *Comparing Mood and Modality*

Having given brief definitions of modality, verbal mood, and sentential mood, I now wish to show a few differences and similarities between them. It is important to keep these categories separate because there are legitimate differences, and there has been a good deal of confusion in Biblical Hebrew studies because of how the term “modality” has been used. In order to make the comparisons, I discuss deontic modality, irrealis verbal mood, and imperative sentential mood.

To begin with, a sentence in imperative sentential mood should not be confused with a sentence that expresses deontic modality. In English, the two have formal

¹⁹ This is similar to the morpheme found in Amahuaca as described in (Sparing-Chávez 2003:4)

²⁰ This has led to a considerable debate concerning whether or not irrealis exists as a real semantic category (for a discussion, see Bybee 1998). Whether or not an invariable element can be found for the category of irrealis, the term is widely assigned to morphemes that share a common set of functions, so I have used the term in a similar way.

distinctions. A sentence in imperative sentential mood normally lacks a subject, e.g. *Run!* but a sentence expressing deontic modality uses one of the modal auxiliaries, e.g. *You must run when you wake up tomorrow*. Yet, there are also semantic distinctions that can be observed. Although sentences such as *Run!* give a command that obligates the hearer, deontic modal sentences normally make an assertion about an obligation.²¹ So while both deontic modality and imperative sentential mood deal with obligations, the former normally is in declarative sentential mood, but the latter is obviously not (being, by definition, in imperative sentential mood). For example, the sentence *You must do the dishes before reading your book* (uttered by an older sister reporting an obligation) might actually be untrue and could be responded to with something like *No, I don't. Dad told me I could read for five minutes first*. In contrast, the sentence *Do the dishes!* can be disobeyed, but it cannot be untrue.

However, there is semantic (and functional) overlap between a sentence in imperative sentential mood and one with a deontic modal. A deontic modal **may** be used to report an obligation at the TA, but it may also be used with the illocutionary force of giving a command (as an indirect speech act, i.e. a speech act different from the sentential force of the sentence form). For example, the two sentences *You must do the dishes right now* (spoken by the appropriate authority) and *Do the dishes!* have little, if any, functional difference (particularly if the former obligation is said for the first time because the illocutionary force would then most likely be giving a command just like the imperative). Because both deontic modality and imperative sentential mood deal with obligations and both can have the illocutionary force of giving a command, they can receive very similar interpretations at times.

The expression of deontic modality and imperative sentential mood might also overlap with verbal mood. In some languages, especially those without an imperative, an irrealis form can function like an imperative, and the category of irrealis may also include deontic modality (as in Jamul Tiipay, Cristofaro 2012). So an irrealis form, categorized as

²¹ Deontic modals may, however, also be used with the illocutionary force of giving a command, and when this occurs, they are very similar to imperatives.

a verbal mood, may function as a marker of non-declarative sentential mood when it is used as an imperative, and it may act like a modal form indicating deontic necessity because the situation someone is obligated to perform has not yet been actualized. Thus, an irrealis verbal mood form may express both sentential mood and modality.

2.6 Discourse

When moving from the sentence level to the discourse (a unit larger than the sentence), there are new considerations that must be taken into account. I mention only a couple of these in the following sections, specifically how the concepts already mentioned have bearing upon the discourse and how the discourse has bearing upon the above concepts.

2.6.1 *Perspective Shift in Discourse*

Some contexts have multiple options for the TA, particularly when there are verbs of speaking or thinking (Klein 1994:68–69). This is quite natural considering there are conceivably at least two possible TU's when a verb of speaking or thinking is used: the TU of the narrator and the TU of whoever is doing the speaking or thinking in the actual story. Following Carruther's classifications (2012), there are four possible scenarios for how this second perspective is presented: Free Direct Discourse (FDD), Direct Discourse (DD), Free Indirect Discourse (FID), and Indirect Discourse (ID). Both FDD and DD require a shift in the TU because a new speaker has begun (this is ordinarily marked by quotation marks in English). According to Marnette, the difference between the "Free" discourses and the non-free discourses is marking (such as a verb of saying or thinking, like *He said...*): Free Direct Discourse (FDD) and Free Indirect Discourse (FID) have no explicit marking to indicate that a new speaker's perspective has begun, whereas the other types of discourses are marked for the beginning of the speaker's perspective (Marnette 2005:23). To illustrate FDD, she gives the example *Paul looked at me. I don't want to go: do you?* (Marnette 2005:23). Paul says that he does not want to go, and the discourse switches to his

perspective without any overt indication that it is actually doing so. Changing this to DD would require the phrase *He said*, so the example would be *Paul looked at me. He said, “I don’t want to go: do you?”* Because the new TA would be the TU of the speaker in DD and FDD, the TU of the narrator would then be irrelevant to tense. In FID and ID, the TA may shift to the TU of the speaker in the story in some languages, but it may also remain at the TU of the narrator.

It should be obvious that the above discussion has implications for tense: a shift in the TA means that verb forms have a new reference point to which they are temporally related. Suppose, for example that the TA shifts to a subject’s perspective that is in the future. Assuming this, a past tense verb may be used to depict a future situation (in relation to the TU of the narrator), since the TT may be prior to the TA (and hence a past tense is used), but it may be future relative to the TU of the narrator, e.g. *If you don’t finish this paper, you will say in 20 years from now that you made a mistake.* The past tense *made* actually depicts a future situation relative to the TU of the narrator because the TA shifts to 20 years in the future from ID, indicated by *you will say* (the opposite case, a future tense used with a past TT in relation to the TU of the narrator, is also possible; see Comrie 1985:110 for a discussion and examples from Russian). Such cases show that temporal reference in discourse is more complex than simply a relationship between two reference points, since one must also determine where to anchor the reference point to which the TT is related (see Binnick 1991:415–426 for a fuller discussion).

2.6.2 Relating Situations in Discourse

As was shown above, tense, the relationship between the TA and the TT, is affected by various factors in the discourse. Aspect, the relationship between the TSit and the TT, also has relevance on a discourse level, particularly for relationships between successive situations²² such as sequentiality, temporal inclusion, and temporal precedence. The second situation presented in the discourse occurs after the first in sequentiality, is included in the

²² By “successive” here, I mean the order in which the situation is presented in the discourse, not necessarily the order in which the situations occur in the real world.

first in temporal inclusion, and precedes the first in temporal precedence. These relationships are related to aspect in that perfective situations are often sequential, while imperfective situations are often not (Comrie 1985:28). In other words, different aspects have stronger tendencies towards certain relationships because of their semantic values, as is explained below. However, sequentiality is not a necessary entailment from a string of perfective verbs, as some have claimed, since temporal inclusion and temporal precedence are also possible (Lascarides & Asher 1993). It is actually the discourse relationship between clauses that accounts for the sequential effect or the lack of sequential effect (Lascarides & Asher 1993). Throughout this section, I am dealing strictly with the temporal order of the situations, so when I say something is sequential, I mean only that it is temporally sequential (as opposed to other types of sequentiality, such as logical sequentiality).

2.6.2.1 Narration

In their work on discourse relations, Asher and Lascarides describe several basic relationships between clauses that affect the temporal order of the situations. First, the relationship of Narration is equivalent to sequentiality: the events/situations are presented in the order they occur in the real world, i.e. the second situation follows the first situation (Asher & Lascarides 2003:162–165). For example, the temporal order of the situations in the clauses *Penny went to the store, and then she went home* matches how they are presented. In the real world, Penny would ordinarily go home after she went to the store just as the order is presented in the text. In order for two clauses to be related by Narration, the poststate of the first situation must overlap in space and time with the prestate of the second situation (Asher & Lascarides 2003:162, 164). So if the situations described by the lexical meanings of the predicates do not ordinarily occur in succession in the universe of discourse, Narration does not hold even when two successive perfective verbs are used (e.g. *Penny bought apples at the store. She also bought oranges*). Two perfective verbs may also describe situations performed by different agents at the same time, e.g. *From 2-4 PM, Ansley studied, and Lauren crocheted a hat*. The requirement for Narration to have

overlap between the poststate of the first situation and the prestate of the second also shows why it is rare to have an imperfective verb in sequence—the definition of imperfective is that some subinterval of the entire situation is presented, so the prestate and poststate are ordinarily not specified (though sentences such as *The tsunami hit the beach hard, but the waters are starting to recede* are possible (see Bary 2009:136–137 for an example and a brief discussion)).

2.6.2.2 Elaboration

Another discourse relationship significant to temporal order is Elaboration, which is characterized by temporal inclusion. In other words, the second sentence either has the exact same TT as the first sentence or is some subinterval of the TT of the first sentence. Elaboration describes in more detail some part of the original situation (Asher & Lascarides 2003:162). The sentence above that further describes what Penny bought at the store (not just apples but oranges also) is an example of elaboration. Importantly, this may involve a repetition of the verb, but this is not necessary. Roughly synonymous terms may describe the same situations in the real world (*purchased* may be substituted for *bought* in the second clause above with no difference in reference), but subintervals of a larger situation may also be described, e.g. *Penny went to the store. She drove down Freedom Parkway to get there*. What is important about Elaboration is that the second predicate describes the same real-world situation (or some part of it) as the first predicate.²³ This discourse relation is often depicted by imperfective or perfect aspect, though it is not limited to these.

2.6.2.3 Background

The third discourse relationship is Background. While it is similar to Elaboration in that the two situations related by Background may temporally overlap, the clause related

²³ Asher and Lascarides also include Parallel and Contrast in their catalogue of relationships, but these do not have as much bearing on temporal reference as the others. They say that the former has similar lexical contents, while the latter has contrasting lexical contents (Asher & Lascarides 2003:168–169). In all of their examples given, the predicates have the same time reference. Hence in terms of temporal relationships, these two categories could also be considered subsets of Elaboration.

by Background often extends before and beyond the previous clause, whereas Elaboration always involves inclusion (Asher & Lascarides 2003:165). At least part of the second situation may occur before or after the first situation. So in the two sentences *Penny went to the store. Her grandson was hungry*, the second situation is normally understood as preceding the first situation. In this case, the second situation also continues beyond the first situation, so that Penny's grandson's hunger does not cease when she goes to the store. However, these are not the only relationships possible, but Background may also be combined with Narration in a sequence.²⁴ So while Elaboration and Narration specify exactly the temporal relationship between clauses, Background may have several different temporal relationships. States are usually used for this discourse relationship.

2.6.2.4 Explanation

The fourth discourse relationship is Explanation, and it requires temporal precedence. Again, Asher and Lascarides give the following examples: *Max fell. John pushed him* (Asher & Lascarides 2003:159). John's pushing is normally understood as preceding (and causing) Max's falling, so even though the two verbs are perfective, the situations occur in the opposite order to their order in the text, i.e. Max's falling precedes John's pushing in the text, but it follows John's pushing in the real world. Explanation normally answers the question of *why* in the discourse (Asher & Lascarides 2003:162). Importantly, this question may have a different answer in a different context, so it is not always the case that pushing precedes falling (one may be pushed while lying on the ground) (Lascarides & Asher 1993:465). These relationships are, then, defeasible and are only representations of what normally happens in the world, but further linguistic context or world knowledge may change the interpretation (Asher & Lascarides 2003:205). Perfect aspect is the preferred aspect for this relationship.

²⁴ Some dealing with rhetorical relations make the relations mutually exclusive, but this is flawed (see Asher & Lascarides 2005:13–14 for a discussion). As long as there is nothing contradictory in the two relations, a clause may be related in more than one way to a previous clause.

2.6.2.5 Complex Structures

In any given text, all of the discourse relationships discussed above may affect the overall temporal structure of a unit. Relationships may be embedded within other relationships, and multiple relationships may hold between different clauses. Although the above relationships should hold within any language (since all languages should be able to specify that a situation occurred before, during, or after another situation), there might be restrictions on which forms are used for particular relationships depending on how the entire system of forms interacts (Lascarides & Asher 1993). This does not mean, however, that multiple forms cannot be used for one relation or vice-versa. In fact, this should be expected. In English, for example, the simple past tense is ordinarily used for the Narration relation, but a string of pluperfect verbs may also be interpreted in sequence given the right context (Binnick 1991:415). As we have seen above, the simple past tense may actually have any temporal relationship with a successive simple past tense. On the other hand, some languages might have a past tense that is more restricted in how it relates to other forms.

As stated above, larger discourses may have many different relationships represented. This is demonstrated by the following example: *Last Friday, Penny went to the store. Her grandson was hungry. She drove there, purchased her goods, and went home.* A graphic representation of this is shown in Figure 10 below. I have put the sentence above the relationship that it has with the immediately preceding clause. When a clause is related to a clause besides the immediately preceding one, that relationship is in parentheses below the clause, and it is specified to which clause it is related. This convention is carried on throughout the thesis.

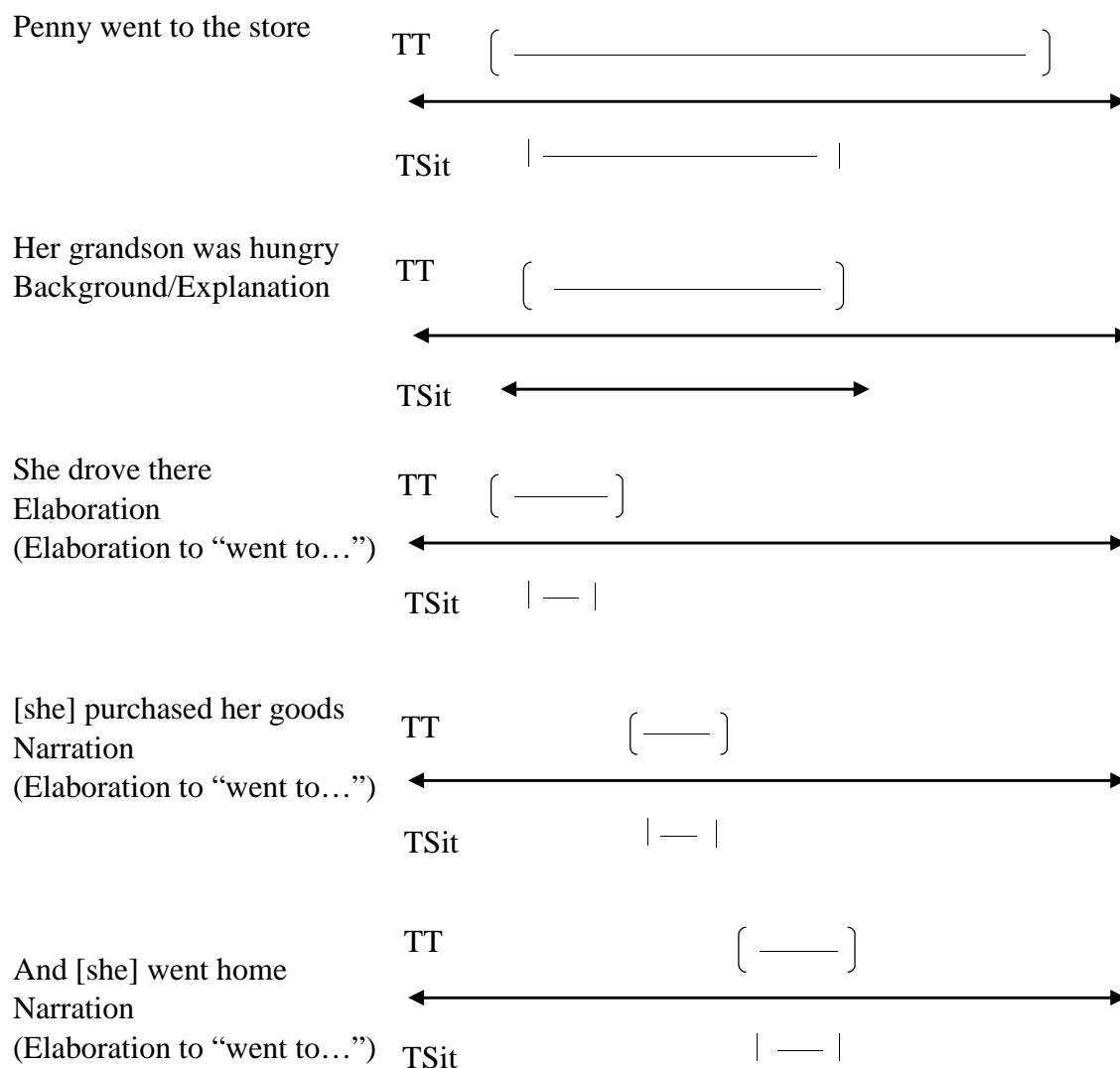


Figure 10: Example of a Complex Time Structure in Discourse

In the above short paragraph, the TT of the first clause is set by the adverbial phrase *last Friday*. The first situation is a general description of what she did, and this is followed by a Background/Explanation clause of why she went to the store, i.e. her grandson was hungry. Because it is an Explanation clause, the state of the grandson being hungry precedes Penny going to the store (depicted by the arrow going to the left of the TT). Each successive situation described in the next three clauses is a small, more specific part of that

general description given in the first clause, so they are all Elaboration when related to the first clause *Penny went to the store*. But the second and third clause within the Elaboration clauses are also related to their previous respective clauses by Narration, since they are in sequence with one another. In such a case, the details are not sequential to the general statement (since they are elaborating it), but they are sequential to each other, i.e. first she drove, then she purchased her goods, then she went home. Hence, in this short discourse, we see all of the temporal relations possible: temporal precedence (Explanation and Background), inclusion (Elaboration and Background), and succession (Narration).

2.7 Conclusion

The preceding explanations of tense, aspect, modality, mood, and discourse are crucial to my analysis of the BHVS that follows. Much confusion has arisen in BH grammar studies because terms have not been adequately defined. As much as possible, I have used the terms commonly accepted by linguists and have tried to explain what linguists mean by those terms. The variation in terminology in studies on the BHVS makes adopting the linguistics terms a necessity (see 1.2). In the next chapter, I apply the general verbal theory laid out above to the BHVS.

CHAPTER 3: THE MEANING OF THE VERBAL FORMS IN BIBLICAL

HEBREW

The wide array of analyses of the BHVS evidences the complexity involved with assigning an invariable meaning to the verbal forms under discussion. The absence of native speakers has led to much debate about the interpretation of specific forms in particular contexts. As a result of this, I have sought, as much as possible, to utilize examples that are not debated, and when a particular function has less clear examples, I have added clearer examples that are found outside the corpus. When a function is well-attested in the Hebrew Bible but is not found in my corpus at all, I briefly discuss the function with the typical examples cited in grammars and books on the BHVS. As explained in chapter two, it is the task of the semanticist to explain how a form's functions are related to its meaning(s). This chapter is devoted to doing just that for the finite verbal forms in BH by showing how the forms' functions can be derived by combining the meaning(s) of the forms with the surrounding context. In doing so, I have tried to show the basic, invariable meaning of each form. My goal has not been to repeat good linguistic arguments where they already exist, but to push the analysis of the forms forward by showing *how* their meanings can function in a variety of ways given the context and to suggest new meanings where appropriate. Thus, some points that are not heavily debated are given little attention, while I have focused the bulk of my explanations on the debated functions of the forms and how these functions relate to the invariable meaning.

I am not adopting any one theory of the BHVS as my starting point, but I have begun by using a combination of several different theories that fit what I have noticed in my own analysis of the BH text. As stated in chapter one, I have adopted the common practice of using the transliteration of the verb 'to kill' to reference the different forms. This is to minimize any semantic associations with the forms, since the semantics are still

heavily debated. The forms I treat are QATAL, YIQTOL, WAYYIQTOL, and WEQATAL. QATAL is ordinarily labeled as perfect, perfective, or past. I consider it to be polysemous, i.e. to have two distinct invariable meanings: perfective or perfect.²⁵ YIQTOL is ordinarily labelled as future, modal, or imperfective. I consider it to be irrealis verbal mood. WAYYIQTOL is ordinarily labelled as past, sequential, or past-perfective. I consider it to be past-perfective. WEQATAL is ordinarily labelled as a future/modal or a perfective-future/modal. I consider it to be irrealis-perfective.

3.1 Introduction

In this chapter, I apply the verbal theory discussed in the previous chapter to the functions represented by the forms in the BHVS. Although I give the statistics for my data, my analysis is not based primarily on a statistical count to determine the invariable meaning of a form. In such a limited corpus, a statistical count inevitably provides a very incomplete picture of the forms' functions. So rather than relying heavily upon statistical counts for determining the invariable meaning, I have attempted to demonstrate the basic meaning of a form by examining the functions and relating them back to the meaning. Even if there is only one clear example of a particular function of a form, I relate that back to the invariable meaning. When there is not a clear example of a function in my corpus, I draw from more unambiguous examples outside of my corpus. Often times, the greater discourse (i.e. the text beyond the verb's clause) can impact the function of a form, and this will only be minimally explained in this chapter, since most of the discourse explanations will be relegated to the following chapter.

With a particular invariable meaning, we should expect to find predictable interpretations of individual verbs based on a verb's interaction with the context. Let us consider the category of tense for example. A verb form that is used to refer to past, present, and future time relative to the time of writing has one of two options. It may either be

²⁵ I do not mean that the form always has a perfective and a perfect value, but that any occurrence of the form may have either a perfective or a perfect value. When a form has two meanings that always co-occur, I put a dash between them, e.g. past-perfective has both a past tense meaning and a perfective meaning when it occurs.

unspecified for tense, or it may be a relative tense where the Temporal Anchor (TA) shifts in each of the contexts. Likewise in the category of aspect, we can expect certain things to occur. Perfective verbs specify that the beginning and the end of the Time of the Situation (TSit) are included within the Topic Time (TT). For telic predicates (accomplishments and achievements), this would mean that the verb indicates that the Target State (TS) is reached. The opposite is true for imperfective: the TS will not yet be reached for telic predicates used in the imperfective.

In order to present the data more objectively, I use two different formats. The first chart gives the relationship between the time of writing and the TSit. In this chart, I define the time of writing as the apparent date of composition and the TSit as the time when the situation actually occurs. Of course, this requires that a determination be made about when the books claim to have been written as well as a determination about when the events occurred, but this is inevitable in any analysis dealing with time.²⁶ The second chart I present does not show the time of the events directly, but it displays the relationship between the TT and the TA, or in other words, my analysis of the tense relationships. I have left out aspectual distinctions when relating the time of writing to the time of situation, as shown in Table 1.

Table 1: Sample Chart Relating Time of Writing to TSit

Time Reference		
Past	Present	Future

²⁶ When determining the date of composition and the date of events, I rely on the text as much as possible. Each of the books claim to be set in a certain time period, so I assume that this claim is correct. Some scholars will undoubtedly have different dates for these books, but that does not change the fact that the claimed time of writing is set by the books themselves. The same can be said of events that the prophets predict will come to pass. Even if the prophet (or someone else) wrote the book after the event actually took place, it might still be presented as a prediction in terms of the book's purported time of writing, and it is this claimed time of writing that is relevant for an analysis of the verbal forms. Whether or not Zephaniah, Amos, and Micah actually wrote the books and when they wrote them are not directly related to the analysis of the verbal forms, so I accept the text as it stands on these issues.

The chart that displays my analysis shows both aspectual and tense relationships. In the chart, I have not included any situations that do not occur in the real world (including conditionals, questions, modals, and hypothetical situations). A sample chart for my analysis is shown in Table 2.

Table 2: Sample Tense and Aspect Chart

Aspect	Tense		
	Past	Present	Future
Perfective			
Imperfective			
Habitual			
Perfect			

In those cases where there is no clear example found in my corpus of a certain function that is well attested elsewhere, I mark the box with an “X” to signify that it does exist. Any functions where the examples are debatable, I mark with a “?”.

As noted in chapter two, a verb may encode aspect and have a default temporal interpretation (e.g. perfective is normally past time), but the form need not actually encode a particular tense. In the same way, a form may be used with various times in relation to the TWrit but still encode tense, such as when the perspective shifts in discourse.

In some ways, the interpretation of aspect is more complex than tense. This is because the form of the verb is not the only relevant part of aspect; aktionsart also affects how the situation is viewed. For the relevant forms, I therefore discuss not only certain aspectual interpretations, but also how those interpretations interact with the aktionsart of individual predicates when the aktionsart significantly affects the meaning.

When determining the invariable meaning of the forms, I have also taken cross-linguistic studies of tense, aspect, and modality into consideration. Seeing what a variety of languages do in their TAM systems helps one to understand what is possible in language in general, and this comparison is helpful in determining an accurate analysis of an individual language. Since native speakers would ordinarily be able to confirm or

disconfirm certain meanings with living languages, cross-linguistic studies, though incomplete, might be able to help guide a semantic study of a dead language by providing examples of similar functions in living languages (see Cook 2012:175).²⁷ Diachronic studies have also shown that TAM values often develop in fairly predictable and standard ways across languages, and this means that “grams are polysemous in predictable ways” synchronically (Bybee, Perkins & Pagliuca 1994:300). It is rare, for example, to have a form that is polysemous for past and modality, since modality is ordinarily related to the future diachronically and cross-linguistically (Dahl 1985:103).

Another related, and often overlooked, concept related to cross-linguistic studies is that a form’s functions must be related to other forms’ functions in the same language. “Authors often attempt to extrapolate a semantic invariant... However, a notion that is considered invariant cannot be defined on its own, but must be linked to a network of related (opposed, subordinate, etc.) notions” (Desclés & Guentchéva 2012:124–125). All languages have the ability to talk about a situation that occurred in the past, but the form used often depends on what other forms are available to express a similar idea. Moreover, forms often overlap in function, so that more than one form can be used for a single expression. For example, *When Chris snowboards, he soars through the air like a bird would fly* vs. *When Chris snowboards, he soars through the air like a bird flies* have very little difference in meaning. In certain contexts, the meaning of the expressions might have slightly different nuances, but one would be hard-pressed to draw a clear distinction between the two, since they are both hypothetical situations. Because English can use two different forms to express hypothetical situations, one of these functions could fall out of use without affecting the invariable meaning of either form. We should not be surprised, then, if we find that there are variations between how two forms with the same invariable

²⁷ While I agree with Cook concerning the usefulness of cross-linguistic comparisons with dead languages, some caution must still be exercised with this method of comparison. Although our knowledge of the world’s languages is increasing rapidly, we still have a very limited knowledge about the vast majority of languages. Within any study of an individual language, the language itself must determine the grammar. Seemingly “anomalous” phenomena should be questioned on the basis of their abnormality, but they should not be dismissed, since the so-called “anomaly” may be so only in our limited data set from the world’s languages, and anomalies, though obviously rare, may occur.

meaning function across languages because each of the forms will be competing with other forms that could also be suitable for certain functions.

One final note before getting into the data: there is debate about how negated situations should be treated, since these situations do not actually occur. However, for English at least, tense and aspect can still be represented with negative situations. For example, *Justin loved to eat cake when he was young* and *Justin did not love to eat cake when he was young* are both in the past because the TT at which the claim is made is before the TU. In the first example, the assertion is about a positive state, and in the second example, the assertion is about a negative state, but the “pastness” of the situation is not affected. I believe that the same holds true for BH, so TAM categories are still relevant for negated verbs.²⁸

3.2 QATAL

As stated above, QATAL is normally considered to be past, perfect, or perfective, and I take it to be polysemous for perfect and perfective aspect. In my corpus, QATAL is found in every time sphere and has a number of different functions. These are illustrated in the time chart in Table 3 and the tense and aspect chart in Table 4 (as a reminder, the “X” marks a function of the form without a definitive example in my corpus but attested in BH in general):

Table 3: Relationship between Time of Writing and TSit for QATAL

Time Reference		
Past	Present	Future
59	43	23

²⁸ Some languages require irrealis verbal mood for negative assertions, so negation could be relevant for the analysis of the irrealis forms. However, as is shown below, this is not the case for the irrealis forms in the BHVS.

Table 4: Relationships among TT, TA, and TSit for QATAL

Aspect	Tense		
	Past	Present	Future
Perfective	33	X	1?
Imperfective			
Habitual	1	19	
Perfect	3	68	3?

3.2.1 Time Reference

Table 4 shows that QATAL is used in all three time spheres relative to the TA with both perfect and perfective aspect. This is shown in examples (1)-(6).

(1) Past-Perfect—Amos 7:2b

וְהָיָה אִם-כָּלָה לֶאֱכֹל אֶת-עֵשֶׂב הָאָרֶץ וְאָמַר
 wəhāyā^h ʔim-killā^h leʔēkôl ʔet-ʕéseḅ hāʔāreṣ wāʔōmar
 “And when they **had finished** eating the vegetation of the land, I said,”²⁹

(2) Past-Perfective—Amos 2:9a

וְאַנֹכִי הַשְׁמַדְתִּי אֶת-הָאֱמֹרִי מִפְּנֵיהֶם
 wəʔānōkî hišmādtî ʔet-hāʔēmōrî mippənêhem
 “And I **destroyed** the Amorite before them.”

(3) Present-Perfect—Micah 3:8a

וְאוֹלָם אֲנֹכִי מְלֵאֲתִי כֹחַ אֶת-רוּחַ יְהוָה
 wəʔûlām ʔānōkî mālēʔtî kōʕ ʔet-rûʕ yḥwh
 “But I **am full** of power, with the spirit of YHWH.”

²⁹ All translations for the examples are my own unless otherwise stated.

(4) Present-Perfective—Jeremiah 40:4a

וְעַתָּה הִנֵּה פִתַּחְתִּיךָ הַיּוֹם מִן־הָאִזְקִים

wəʿattā^h hinnē^h pittaḥtîkā hayyôm mīn-hāʾziqqîm“And now, behold, I **release** you this day from your shackles.”

(5) Future-Perfect—Ezekiel 3:21

וְאַתָּה כִּי הִזְהַרְתוּ צְדִיק לְבַלְתִּי חֹטֵא צְדִיק וְהוּא לֹא־חָטָא חַיּוֹ יִחְיֶה כִּי נִזְהַר וְאַתָּה אֶת־
נַפְשְׁךָ הַצֵּלְתָּwəʿattā^h kî hizhartô šaddîq ləbiltî ḥăṭōʾ šaddîq wəḥûʾ lōʾ-hāṭāʾ ḥāyôyîhye^h kî nizzār wəʿattā^h ʿeṭ-naṣṣəkā **hiṣṣāltā**“But if you teach the righteous person not to sin, and he does not sin, he will certainly live, because he has been taught. And you **will have saved** your life.”

(6) Future-Perfective—Isaiah 11:8b

וְשִׁעְשַׁע יוֹנֵק עַל־חֹר פֶּתֶן וְעַל מְאוֹרֶת צִפְעוֹנִי גָמוּל יָדוֹ הָדָה

wəšīʿāšaʿ yônēq ʿal-ḥūr pāṭen wəʿal məʾûrat šipʿônî gāmûl yādô **hādā^h**“A baby will play over the hole of a snake, and an infant **will stretch out** his hand over a serpent’s nest.”

As shown in example (1), the perfect sense of QATAL can be used for past time reference. Amos begins speaking in the past (represented by a WAYYIQTOL), and the preceding QATAL occurs prior to Amos speaking. The TT is the same as the following WAYYIQTOL, but the TSit occurs before the TT. Hence, it is a past-perfect.

The second example, Amos 2:9a, is about how God destroyed the Amorite nation, and it is in the context of God describing His past acts with Israel (bringing them out of Egypt, leading them in the wilderness, raising up prophets, etc.). It is also perfective. The predicate is telic, and the TS has been reached.

Example (3) is a present perfect. It is a stative present indicating a present state for Micah (for this function of the perfect with QATAL, see section 3.2.2 below). He is currently full of power and the Spirit when the sentence is uttered. Because it is a stative present, it is categorized as present in both Table 3 and Table 4. The categorization in Table 3 is, however, different than every other variety of perfect aspect. With the others, the situation

will have occurred in the past in relation to the Time of Writing (so past in Table 3), but the TT would still be in the present (so present in Table 4). This also accounts for why the count for present in Table 3 is greater than 19 (the number of present-habituals). There are 24 present statives whose situations also overlap with the Time of Writing.

While there were no clear examples of present-perfectives in my corpus, there are many throughout the Hebrew Bible. Grammarians generally accept that QATAL can be used for performatives in BH (for other examples, see Gen. 22:16; 23:10-11; Deut. 8:19; etc., and for fuller discussions, see Cook 2012:207–208; Joüon & Muraoka 2011:334; Waltke & O'Connor 1990:489; Joosten 2012:202–203).³⁰ This is natural as Bary shows that the semantics of performatives are most compatible with perfectives in present time (Bary 2009:127). Jeremiah 40:4a in example (4) is one such instance of a performative from outside of my corpus. The act of releasing Jeremiah from his chains is performed by the captain of the guard by him uttering this sentence.

I present example (5) from Ezekiel 3:21 because there are only disputed future perfect examples from my corpus. Many modern English translations recognize the last QATAL as a clear case of a future perfect (e.g. ESV, NET, NIV, NLT, etc.). The hypothetical situation presented in the conditional clause (the righteous person not sinning) along with its consequence (the righteous man living) will take place in the future. If that situation actually occurs, a situation in the more distant future will also take place (the delivering of Ezekiel's soul). Thus, this final QATAL represents a clear case of the future perfect because the TSit (Ezekiel being delivered by teaching the righteous person) precedes the TT (the state of Ezekiel having saved himself and the righteous person).³¹

The future-perfective function of QATAL has been described in almost a mystical way, being labelled as the “prophetic perfect”. So, Waltke and O'Connor describe it as

³⁰ Performatives (Austin 1975) are sentences that explicitly state the illocutionary force of the utterance and simultaneously perform that illocutionary act, and they also have a TSit that is equivalent to the TU. In English, we do this with the simple present in sentences such as *I now pronounce you man and wife* where the very act of uttering the sentence performs the action of joining the two people together in marriage. Traditionally, performatives must be first person, though the term performative is sometimes used more loosely in general linguistics.

³¹ Other potential examples in my corpus include Zephaniah 2:11b, 14d; Amos 9:15. For more examples and a more detailed discussion of this function, see Cook (2012:207).

such: “a speaker vividly and dramatically represents a future situation both as complete and as independent” (Waltke & O’Connor 1990:490). While there are debatable examples of the so-called “prophetic perfect” in my corpus,³² G.L. Klein’s study on this use of QATAL does show that there are clear examples (Klein 1990), and Isaiah 11:8 in example (6) is one such instance. It is parallel to a previous WEQATAL in future time, and the previous verse is composed of three YIQTOLS, all of which have future time reference (as they normally do). The infant stretching out his hand over the serpent’s nest without harm will certainly take place only in the future, and the TSit is included in the TT because the baby actually reaches the Target State of reaching his hand out over the nest. It should also be remembered that there is nothing within the meaning of a perfective form to prevent it from being used with future time reference—it just means that the TSit is included within the TT.

There are several noteworthy points about these examples. First, in my corpus, the perfective use of QATAL tended to be limited to past time reference (see my third point below for why Table 3 has more examples in future time). This is congruent with cross-linguistic studies that show that the meaning of perfective aspect has a tendency to relegate it to past temporal reference (Dahl 1985:83; see also Smith 2008 for a more semantics-based explanation). Although there were no clear examples in my corpus for present or future perfective, the examples given show that they do exist in Biblical Hebrew, so while a past interpretation is ordinary for QATAL, it is not necessary.

Second, QATAL is often found as a perfective with past time reference in subordinate clauses, negated clauses, and in clauses with an SVO word order. This is due in part to syntax. The other form that is often used to depict a perfective-past situation is WAYYIQTOL (discussed below), but it cannot be negated, have a subject clause-initial, or be in a subordinate clause. There is, then, clear overlap between the semantics of WAYYIQTOL and QATAL, and sometimes the only difference is syntax. This is demonstrated in example (7).

³² The “prophetic perfect” is equivalent to a future-perfective as used by most Hebraists. However, there is not complete uniformity in how the term is used.

(7) Amos 2:10a-b

וְאֶנֶכִּי הֵעֵלֵיתִי אֶתְכֶם מֵאֶרֶץ מִצְרַיִם וְאִלֵּךְ אִתְּכֶם בְּמִדְבָּר אַרְבַּעִים שָׁנָה
 wəʔānōkî heʕēlētî ʔetkēm mēʕereš mišrāyim wāʔlēk ʔetkēm bammidbār ʔarbāʕīm
 šānā^h
 “And I brought you up out of the land of Egypt, and I led you forty years in the wilderness”

Third, there are far more future and past situations when the TSit is related to the Time of Writing (in Table 3) than when the TT is related to the TA (in Table 4). In other words, Table 3 has many more past (59) and future (23) than Table 4 (37 past and potentially 4 future). There are two reasons for this. First, the perfect aspect specifies that the TT follows the TSit, so most of the present perfects in the tense and aspect chart (Table 4) are labelled past in the time of writing and TSit chart (Table 3). Although the time being talked about is in the present, the situations actually occurred before the time of writing. (This does not apply to present statives as noted above.) Second, QATAL has a high tendency to be used in FDD in the prophets as a rhetorical device. A situation will be talked about as if it has already occurred to make it seem more real to the audience (see section 4.1 for an example of this with QATAL). This accounts for the 23 situations that are future in relation to the time of writing in Table 3 but are actually past in relation to the TA (this is explained in more detail in the chapter on discourse in section 4.1).

Given the variation in time with QATAL, I consider it unmarked for tense. The TT may be in the past, present, or future relative to the TA.

3.2.2 Perfect Aspect

The terms “perfect” and “perfective” are unfortunately almost identical, but the two do have distinct semantic values as discussed in chapter two (see sections 2.3.2.1 and 2.3.2.3). Two well-known languages with a similar pattern of polysemy to QATAL are German and French which have the Perfekt and Passé Composé respectively (though these two forms are not tenseless like BH). When translated into English, these two forms have two distinct options just like the BH QATAL form: they may be simple past, e.g. *I washed*

the dog or present perfect, e.g. *I have washed the dog*. While other languages show a similar type of polysemy as well (Bybee, Perkins & Pagliuca 1994:79), this does not mean that the two meanings are equivalent. Perfect aspect specifies that the TT follows the TSit, but perfective aspect specifies that the TSit is included within the TT. While there are many forms cross-linguistically that can specify either of these values, neither can be completely reduced to the other. In other words, the QATAL form has two different aspectual values that may be expressed, either perfective or perfect aspect. Because these aspects have different meanings, the QATAL form should be considered polysemous for either perfective or perfect aspect.

As shown in the tense and aspect chart above, QATAL regularly expresses perfect aspect, and this is generally accepted among Hebraists describing the BHVS. In section 2.3.2.3, I discussed five different varieties of perfect aspect. They were the perfect of continuing result, universal perfect, perfect of recent past, experiential perfect, and perfect of stative present.³³ In my corpus, I found clear cases of three of the five. They are shown in the following examples:

(8) Micah 1:9a-b—Perfect of Continuing Result

כִּי אֲנוּשָׁה מִכּוֹתֶיהָ כִּי-בָאָה עַד-יְהוּדָה

kî ʾănûšā^h makkôṭe^hhā kî-bāʾā^h ʿad-yəhûdā^h

“For her wound is incurable, for it **has come** to Judah”

(9) Zephaniah 2:8b-c—Experiential Perfect

אֲשֶׁר חָרְפוּ אֶת-עַמִּי וַיַּגְדִּילוּ עַל-גְּבוּלָם

ʾāšer **hērṣû** ʾet-ʿammî wayyaġdîlû ʿal-gəbûlām

“how they **have taunted** my people and made boasts against their territory”

³³ As explained in section 2.3.2.3, some languages (such as Ancient Greek and Swahili) can use the perfect aspect to describe a current state, normally as the result of a past event. For this reason, I take the present stative functions of QATAL to be instances of its perfect sense.

(10) Micah 6:12a—Stative Present

אֲשֶׁר עָשִׂירֶיהָ מְלֵאֵי חָמָס

ʔāšer ʿāšîreýhā mālʔû ḥāmās

“Her rich men **are full** of violence”

The other two varieties of the perfect may occur in BH, but I did not find any in my corpus.³⁴ Cross-linguistically, the range of usage for the QATAL form seems to be fairly broad compared to other perfects (Bybee, Perkins & Pagliuca 1994:78–81), and this might be one reason why it has been so difficult to categorize the form.

3.2.3 *Perfective Aspect*

Not only does QATAL express perfect aspect, but it can also express perfective aspect, which indicates that the TSit is wholly included within the TT. For telic predicates (accomplishments and achievements), this means that the TS is asserted to be reached. This is demonstrated in example (11):

(11) Micah 6:4a-b

כִּי הֵעֲלֵתִיךָ מֵאֶרֶץ מִצְרַיִם וּמִבֵּית עֲבָדִים פְּדִיתִיךָ

kî heʿēlîṭîkā mēʿereš mišrayim ûmibbêt ʿābādîm pādîṭîkā

“For I **brought you up** from the land of Egypt and **redeemed** you from the house of slavery”

Both of these predicates have an endpoint. The people’s movement from the land of Egypt to another location is lexically specified, as is the people’s redemption from slavery into freedom. Telic predicates combine easily with perfective verbs because the source state (SS) and target state (TS) clearly specify the beginning and end of the situation. Because the BHVS has more than one perfective form, I discuss perfective aspect in more detail below in the sections for WEQATAL and WAYYIQTOL.

³⁴ It would be particularly difficult to tell if the perfect sense of QATAL is responsible for its usage in recent past examples, or its perfective sense is responsible. It seems that it can, however, be used for the recent past when combined with the adverb *now* (Joosten 2012:97–98). Psalm 16:8a seems to be an example of the universal perfect.

3.2.4 Habitual QATAL

In chapter two, I noted that habituality is often expressed with certain aspects (2.3.2.4) and irrealis mood (2.5.2.1), noting that the meaning of imperfective aspect is naturally more compatible with a habitual interpretation. However, there are many clear examples of habitual QATAL, which shows, as I pointed out, that habituality is not *limited* to either imperfective aspect or irrealis mood. While many languages use an imperfective for habituality, there is nothing in the semantics of a perfective that prevents it from functioning as a habitual. Habituals only require that a situation occurs as a regular pattern and that these occurrences are over an extended period of time. Yet, though QATAL may be used habitually, it occurs less frequently than YIQTOL or the participle in habitual contexts. In his study on Proverbs 10:1-22:16; 25:1-29:27, Cook finds far more YIQTOL's (375) and significantly more participles (86) than QATAL's (57) (Cook 2005a:124),³⁵ so while QATAL is not the ordinary form used for habituals and generics, it still has this function. Though rarer than other forms, example (12) below shows that QATAL may have a habitual interpretation:

(12) Amos 5:8a

עֲשֵׂה כִּימָה וּכְסִיל וְהַפֵּךְ לַבֹּקֶר צִלְמוֹת יוֹם לַיְלָה הַחֲשִׁיךְ
 ʿōśē^h kîmā^h ûkəsîl wəhōpēk labbōqer šalmāweṭ wəyôm laylā^h heḥšîk
 “The one who makes the Pleiades and Orion and turns deep darkness into the morning
 and **darkens** the day into night.”

In this example, the final QATAL is preceded by two participles (ʿōśē^h ‘makes’ and wəhōpēk ‘turns’), and both requirements for habituality are met. The day darkening into the night is a regular pattern with multiple occurrences of the situation. As will be shown below, there are other forms that can also be used habitually in BH, and this comes as no

³⁵ As Cook points out, not all of these should, strictly speaking, be considered generic or habitual statements because not every verb in Proverbs should be taken as such. Many are, however, which suggests that YIQTOL and the participle are more common in habituals and generics. Nevertheless, the presence of clear habitual and generic examples expressed by QATAL demonstrates that both are a legitimate use for QATAL as well.

surprise given the requirements for habituality. If this is the case, what is the difference between habitual QATAL and the other habituals, if any?

Cook argues in his work on the BHVS that habitual predicates keep their normal TAM values (Cook 2012:214). For example, if an imperfective form is found in a habitual context, it still has its imperfective value, and the same would be true for a perfective form. As a general rule, I think Cook's observation is helpful and is able to help explain some of the data. In discussing the semantics behind these different uses, I separate perfective QATAL from perfect QATAL as they are used slightly differently in habitual contexts.

3.2.4.1 Habitual Perfective QATAL

Other languages besides BH also use a variety of forms for habituals, and one of these is Polish, which has both imperfective and perfective habituals (Klimek-Jankowska 2008).³⁶ In her description of perfective habituals, she describes them as requiring in the mind of the speaker and hearer “an inherent property of the subject,” and they are limited to contexts “which express what is generally considered reasonable in the actual world” (Klimek-Jankowska 2008:331). In other words, perfective habituals are not merely hypothetical habits, nor are they unactualized habits (as Boneh & Doron 2009:12–13 show is possible for some habituals, and as would be expected for irrealis habituals). She also notes that perfective generalizations are found only as habituals, i.e. specifying a regular occurrence of situations for an individual rather than specifying what is normal for a class as with generics (Klimek-Jankowska 2008:327). This accords well with the data in Amos, Micah, and Zephaniah. Example (12) above shows both of the characteristics given by Klimek-Jankowska. The individual doing the action is the Lord, and the recurring situation is turning day into night. In other words, the day turns to night repeatedly. This is, obviously, a thing to be expected and is something that occurs in the real world. Consider also the following example:

³⁶ She uses the term “eventualities” for “situations”. I continue to use the latter term for consistency and clarity.

(13) Amos 5:12b

צָרֵי צְדִיק לְקַחֵי כֶּפֶר וְאַבְיוֹנִים בְּשַׁעַר הַטֹּוֹ
 šōrārê ṣaddîq lōqḥê kōṭer wəʿebyônîm baššāʿar hittû
 “The ones who afflict the righteous, who take a bribe, and turn aside needy people in the gate”

In this example, the habitual again refers to many situations, and the final QATAL is again preceded by two participles (*šōrārê* ‘afflict’ and *lōqḥê* ‘take’). Amos is indicting characteristics of the people, not a one-time act of negligence to the poor. The point is that these people are unjust and ungenerous as a habit. This example is different from (12) because the subject is plural. A plural subject does not necessitate a generic interpretation, for the habitual could just be a characteristic property of multiple people.³⁷ Significantly, all of the examples found for perfective habituals are situations that actually took place in the real world. They were characteristic properties of individuals that are demonstrated in repeated occurrences of the situation. Not surprisingly, the TSit for each of these predicates was also either in the past or the present. If they were in the future, they would not have taken place in the real world, and so, they would not fit the description given by Klimek-Jankowska for perfective habituals.

One construction affected by syntax is the negative QATAL habitual that follows a habitual participle. Participles, a form often used for habituals, are rarely negated in the Hebrew Bible when they are used predicatively,³⁸ so a real-world negated habitual (i.e. a habitual that describes a real absence of a characteristic in an individual rather than an unactualized situation) ordinarily does not use the participle. Rather, QATAL is often the form used. This is found in example (14):

³⁷ This is similar to the distinction between iterative and habitual in terms of situations, discussed in section 2.3.2.4. Multiple occurrences of a situation does not make the situation habitual in the same way that multiple individuals who all share a characteristic property does not necessarily imply that the characteristic property holds over every individual of the same kind.

³⁸ A search on Bibleworks 9 finds only 36 examples. There are no examples found in my corpus.

(14) Zephaniah 1:6

וְאֵת־הַנְּסוּגִים מֵאַחֲרֵי יְהוָה וְאֲשֶׁר לֹא־בִקְשׁוּ אֶת־יְהוָה וְלֹא דָרְשׁוּהוּ
 wəʔet-hannəsôgîm mēʔahărê yhw̄h waʔăšer lōʔ-biqšû ʔet-yhw̄h wəlōʔ dərāšūhū
 “those who turn back from following the Lord, who do not seek the LORD or inquire of him”

In the previous two verses, the nominal participle is used habitually to describe those whom the Lord will punish. All of previous statements are positive until this verse where negative habituals are introduced. Because the participle is so rarely negated, a subordinating particle ‘*waʔăšer*’, is used as a relativizer followed by a negated QATAL. Syntactically and semantically, this is the most natural way for Biblical Hebrew to express a negated real-world habitual.³⁹

But why the habitual interpretation in the first place? What makes us interpret these clauses habitually? In all of the examples given above, the TT of the clause has been extended by the context due to other habitual forms. They all describe characteristics of the person(s) described. Thus, we might say *The man who filled swimming pools* where *who* indicates that the modifying clause describes a property about the individual. Yet, this alone does not make the construction habitual, since a sentence like *The king who built the temple* cannot be taken habitually because there is no iteration of situations. If, however, the object was made an indefinite plural, we could again get the habitual interpretation, since the iterative requirement would be met. This suggests something more foundational about the requirement for habituality in such a context: the entire predicate (not just the verb) is normally atelic when there is a habitual interpretation.

Example (14) has an atelic verb (and hence an atelic predicate as well), so the explanation is simpler. The extended TT from the habitual participles is carried on by the following QATAL’s. This contextual phenomenon is found in English as well when, if the TT is extended by a stative, for example, a past perfective will be interpreted habitually,

³⁹ Admittedly, it is possible to analyze this as a perfect verb rather than a perfective habitual. However, given that the clause is parallel to habitual participles, this is best taken as a habitual (see Berlin 1994:127 for support for this interpretation).

e.g. *Michael was young once. He played basketball back then.* As long as the TT is extended a perfective form will be interpreted habitually with an atelic predicate. At first, this might seem odd. Perfective aspect specifies that the TSit is included within the TT, so there should be no reason why a single situation could not be referred to. However, when the TT is extended and the Duration Principle specifies that the TSit is much shorter than the TT, there is a tendency to interpret the perfective as not referring to a single situation but to many situations, i.e. as a habitual. Hence, not only does perfective aspect specify that the TSit is included within the TT, but this also suggests that it has a tendency to fill up most of the TT (at least when the TT is large). If a long period is being talked about, it seems odd to suddenly switch to a single situation of a much shorter duration.

3.2.4.2 Habitual Perfect QATAL

When QATAL has its perfect sense, it may also be used as a generic. Although it can specify that there are many situations, perfect habituals may also describe a characteristic of a class, i.e. they can also be generics as well as habituals. In my corpus, there are no clear examples of a habitual or generic perfect QATAL, but I present example (15) from Isaiah to demonstrate how this works:

(15) Isaiah 1:3a

יָדַע שׁוֹר קִנְיָהּ

yāda^c šôr qōnéhû

“An ox **knows** its owner.”

As mentioned above, I interpret present stative functions of QATAL as instances of the perfect QATAL based on similar functions of the perfect in languages such as Ancient Greek. The present perfect is the stative present function of the perfect QATAL. Because the subject is indefinite, the clause describes a characteristic of oxen in general, so it is generic rather than habitual. Perfect QATAL’s function within habituals and generics is to be expected given the entire BHVS. There would be no way to express perfect aspect within

a habitual context if QATAL were not used, since it is the only form that expresses perfect aspect.⁴⁰

3.2.5 *Comparison with other Theories*

In studies on the BHVS, there seems to be very little debate over what functions the QATAL form can have. Cook recognizes that QATAL may have either a perfect or a perfective meaning, but he labels the form perfective because he calls the perfect aspect a residual use from its older meaning (Cook 2012:207). In light of this, the debate surrounding the QATAL form sometimes has more to do with what to label it than its range of meaning. Because Cook adopts a grammaticalization framework, he labels the form perfective and explains the label by appealing to the diachronic development of the form (Cook 2012:207). While my account has only minor variations from Cook's concerning the synchronic semantics of QATAL, my framework necessitates that the label coincide with the invariable meaning(s) of the form. Because perfective and perfect aspect are two different invariable meanings, I suggest that QATAL is polysemous and that a more accurate label should be perfective and perfect.

Joosten and Hatav call QATAL a perfect form.⁴¹ Joosten recognizes that there are some uses that do not fit into the semantics of perfect aspect, namely performatives, future-perfective, and perfective-past (Joosten 2012:202-204, 207, 215–218).⁴² All of these uses fit well with a perfective meaning as shown above. His reason for calling QATAL a perfect rather than a perfective is that the latter uses are “secondary functions” that do “not flow from the basic meaning of QATAL, but is to be attributed to other factors—contextual, stylistic, or pragmatic” (Joosten 2012:194). I agree with Joosten that perfect aspect cannot

⁴⁰ Cook (2012:215) gives other examples of generic QATAL with perfect aspect. He cites Proverbs 12:21 where a perfect of present state is used generically, and a descriptive property of “the wicked” is given (see also Jeremiah 8:7; Proverbs 19:7; etc.).

⁴¹ They actually use the term “anterior”, but this is sometimes synonymous with “perfect” in general linguistics.

⁴² What Joosten calls the “prophetic perfect”, I am calling future-perfective. Although he considers the former category broader (potentially able to include future perfects), his citation and translation of Numbers 24:17 is a future perfective, i.e. *A star shall come out of Jacob...* (Joosten 2012:207).

adequately account for the perfective uses, but the amount of times it is used perfectly cannot be reduced to merely “contextual, stylistic, or pragmatic” reasons. Moreover, even if QATAL were only used perfectly for these reasons, it does not preclude the form actually meaning something different in those contexts (which it undoubtedly does as he himself affirms).

On the other hand, Hatav tries to prove QATAL’s perfect value by showing how it is used in narrative. She claims that it does not advance the reference time (TT in Klein’s model) (Hatav 1997:163), but this cannot account for clear examples when QATAL and WAYYIQTOL are parallel in narrative and both introduce a new TT (see example (7) above). As I show in the next chapter, QATAL cannot be reduced to a single discourse function, and this has already been noted by other scholars (Cook 2012:202–203; Longacre & Bowling 2015:48, 178).

Both Hatav and Joosten fail to adequately account for (or at least give legitimacy to) the functions of QATAL that reflect a perfective meaning, and Cook’s label marginalizes the legitimate use of QATAL as a perfect form. While it may seem inadequate simply to affirm both sides of the argument, claiming polysemy has important practical implications. If a form legitimately has both a perfect and a perfective sense, neither meaning is necessarily more basic than the other, so it is not necessary to label the form as either perfective or perfect. This is a false dichotomy. QATAL has two invariable meanings, perfective and perfect, so its label should correspond with these meanings. Even if all of the functions are agreed upon, the reader must come to a decision about what a QATAL means in a certain context, and if either perfect or perfective is said to be the basic meaning to the exclusion of the other, there will almost certainly be a tendency to read in that “basic meaning” whenever possible. Affirming polysemy accounts for the data and keeps the interpreter honest when approaching a text.

3.3 WEQATAL

While there is still debate about whether WEQATAL is a distinct conjugation from QATAL or not, there is a general recognition that their semantic values are very different.

Moreover, it is generally accepted that WEQATAL patterns with YIQTOL, often having nearly the same interpretation (Cook 2012:81; Hatav 1997:142–150; Joosten 2012:261–311). This has been affirmed for some time and is even reflected in the old “waw-conversive theory” (for a brief survey, see Cook 2012:83–86).⁴³ Because I am focusing on the semantics of the forms, I have chosen to be neutral on whether what is traditionally labeled WEQATAL should be considered a separate conjugation (and so labeled WEQATAL) or whether it should be considered a fronted QATAL. I use the term WEQATAL throughout the thesis not to take a stand on this issue, but for the sake of clarity and because it is traditionally labeled as such (and in keeping with the pattern of using the morphology to refer to the form). The fronted QATAL position, which states that WEQATAL is a QATAL that has been fronted and converted to a “modal/irrealis” form, is largely dependent upon Holmstedt’s syntactic theory, which I do adopt.⁴⁴ But I would modify his theory of the fronted QATAL as a shift not in modality, but in verbal mood.⁴⁵ In this view, WEQATAL would not be a separate conjugation, but it would have the same semantic and morphological properties as QATAL except that it would be in irrealis verbal mood because of being fronted (though fronting would be required for a change in verbal mood, it would not necessarily indicate a change in verbal mood).⁴⁶ What is difficult for this theory to explain is the complete lack of perfect WEQATAL functions: WEQATAL is always perfective-irrealis and never perfect-irrealis. The alternative is to view WEQATAL as an entirely different conjugation, with the implication being that the initial *we-* is an irrealis morpheme. (This would not imply that *we-* would always mean irrealis verbal mood, but that irrealis *we-* would be homonymous with the conjunction). While my sympathies lie with the former view, it does not change the semantic

⁴³ Essentially, this theory states that the initial *waw* converts the past QATAL to a future (WEQATAL) and the future YIQTOL to a past (WAYYIQTOL).

⁴⁴ Holmstedt proposes that the basic word order in independent clauses in BH is SVO, while there are certain other constructions that have a VSO word order (these include subordination, “modal”, a fronted element, and WAYYIQTOL). Thus, he labels the syntactic order SV/XVS. For more on Holmstedt’s syntactic theory and how it can account for a fronted QATAL instead of a separate WEQATAL conjugation, see (Holmstedt 2002). For a defense of his basic theory, see (Holmstedt 2005; Holmstedt 2009; Holmstedt 2011).

⁴⁵ It is unclear exactly what Holmstedt means by “modality”, so depending on his definition, we could be essentially saying the same thing.

⁴⁶ Holmstedt’s theory is not that the initial position always indicates a change in “modality”, but that there are several different reasons a verb may be fronted, “modality” being one of them (again, see Holmstedt 2002 for a more in-depth explanation and Holmstedt 2009 for more evidence).

categorization of the form: WEQATAL is an irrealis-perfective form. In this categorization, I follow Cook (2012:249-256) quite closely, differing only in some minor respects listed below under the comparison section. Table 5 shows the time reference of WEQATAL, and Table 6 shows the tense and aspect functions:

Table 5: Relationship between Time of Writing and TSit for WEQATAL

Time Reference		
Past	Present	Future
2	6 and 2?	135

Table 6: Tense and Aspect Functions of WEQATAL

Aspect	Tense		
	Past	Present	Future
Perfective			124
Imperfective			
Habitual	2	6 and 2?	11
Perfect			

3.3.1 Syntactic Ambiguity

Before delving into the semantics of WEQATAL, it is necessary to say a word about syntax. The most frequent conjunction found in BH is the morpheme WE-, so a QATAL in initial position is ambiguous between WEQATAL (with the irrealis morpheme)⁴⁷ or WE + QATAL (with the conjunction). This means that a WEQATAL (or a clause initial QATAL with the conjunction, which is indistinguishable from WEQATAL most of the time) may have one of three meanings: it may be perfective, perfect, or irrealis-perfective. In other words, this added ambiguity is syntactically triggered. Given this, translations sometimes disagree about the proper interpretation of an initial QATAL, such as in Amos 5:26 where the time reference is difficult to determine.

⁴⁷ Or in the position that might trigger the irrealis interpretation according to Holmstedt's theory.

(16) Amos 5:26a

וְנִשְׂאֲתֶם אֶת סִבּוֹת מַלְכְּכֶם וְאֶת כִּיּוֹן צִלְמֵיכֶם

ûnəśāṭem ʿēt sikkût malkəkem wəʿēt kiyyûn šalmêkem

“You will take up/took up Sikkuth, your king and Kiyyun, your image.”

The Septuagint (LXX) has an aorist verb here, indicating that they understood the verb to be past-perfective, but the ESV has a future and the NIV a perfect. Although cases like this suggest the difficulty of determining the meaning of WEQATAL, the vast majority of cases are clear from the context.⁴⁸

3.3.2 Time Reference

In the overwhelming majority of cases, WEQATAL expresses a perfective future. This is in sharp contrast to QATAL, which is hardly ever used in future time. What both share in common, though, is their perfective value. Example (17) shows a typical use of a future WEQATAL:

(17) Future—Micah 1:6a

וְשָׂמֵתִי שְׂמֶרֶן לְעֵי הַשָּׂדֶה לְמַטְעֵי כָרֶם

wəśamtî šōmrôn ləʿî haśśāde^h ləmatṭāʿê kârem

“And I will make Samaria a heap in the field, a place for planting vineyards”

In the above example, a future time is being talked about—Samaria is to be made into a heap at some time posterior to the TA. The future description is typical for WEQATAL, which is most often found with future time reference.

One comment must be made about future time reference and irrealis mood. In chapter two, I noted that irrealis forms were sometimes used for future situations. It does not follow that a WEQATAL used in future time is merely possible in the mind of the speaker, or, in other words, using a WEQATAL for future time does not mean that the speaker thinks

⁴⁸ There is also sometimes a difference in accentuation between WEQATAL and WE- + QATAL, but this is inconsistent (Joüon & Muraoka 2011:123).

only that the situation **might** take place, but it ordinarily means that the situation **will** take place. This is important to remember about irrealis mood. Although cross-linguistically there are some irrealis forms that are used in future time to indicate that the situation is more contingent, an irrealis form functioning to describe a future situation may also be indistinguishable from an indicative future tense. The latter is the case for WEQATAL, so its function in future time is not less probable than a future tense would be. When discussing future time reference in his work on tense, Comrie explains that a future “tense” is often just one use of an irrealis verb, so a form that is often used in future time may be irrealis and not an actual tense (Comrie 1985:45). The implication of this is that a language that incorporates future time reference into its verbal mood system rather than its tense system does not necessarily express future situations in a more contingent way, especially if the only way to talk about the future is with the irrealis form. This applies to Biblical Hebrew which does not have a future tense, so WEQATAL is often used for future time reference. When WEQATAL is used in this way, the situation is not represented as merely possibly occurring, but the speaker most often makes a claim about what will happen.⁴⁹

Table 6 also shows that WEQATAL can be used with past and present time reference. Examples (18) and (19) display these functions.

(18) Past—Amos 4:7b

וְהִמְטַרְתִּי עַל-עִיר אֶחָת וְעַל-עִיר אֶחָת לֹא אֶמְטִיר

wəhimṭartî ʿal-ʿîr ʿeḥāṭ wəʿal-ʿîr ʾaḥaṭ lō ʾamṭîr

“I would cause it to rain on one city, but upon another city, I would not cause it to rain.”

(19) Present—Micah 2:2a-b

וְחָמְדוּ שָׂדוֹת וְגָזְלוּ

wəḥāmdû śādôt wəgāzālû

“They desire fields, and they seize them.”

⁴⁹ In chapter two, I gave two options for the semantics of irrealis, one being situations that aren’t real (i.e. frustrative), and the other being non-actualized situations at some reference time (i.e. unactualized). It is under the latter category of meaning that the future use of WEQATAL falls and not the former.

In example (18), God describes a previous judgment that he afflicted upon Israel in order to get their attention. The context clearly sets it in past time because it is surrounded by a long list of judgments that God already inflicted upon Israel. Because the context shows that God causing the rain was not a one-time event, it should be taken habitually (so I have translated it as *would*, like the ESV, indicating a past habitual situation). The effects of the rain and lack of rain (the sprouting and withering of crops) makes it clear that weather *patterns* are being described, not just a single day's weather.

Example (19) shows that WEQATAL can be used in present time. It describes a habit that Micah is accusing the wicked of doing in the present moment. This is made clear by the present habituais (from participles and YIQTOL) and statives found in the previous verse as well as the judgment that is threatened on account of these present crimes in the following verse. These examples illustrate that WEQATAL can function in any time, so I consider it unmarked for tense. Yet, it can only be used in past and present time when it is also has its habitual function. This is to be expected if the form's invariable meaning is irrealis-perfective, as I have asserted.

3.3.3 *Perfective WEQATAL*

Every instance of a non-habitual WEQATAL in my corpus had perfective aspect. Cross-linguistically, there is a tendency for verbs with perfective aspect to be reinterpreted when combined with a non-telic predicate (Swart 2012:770; Comrie 1976:19–20). In languages where this reinterpretation takes place, a predicate with no inherent endpoint must be delimited in some way in order to combine with perfective aspect because perfective aspect specifies that the TSit is included within the TT. This is commonly called aspectual coercion, and Bary notes two different possible reinterpretations that might take place: complexive or ingressive (Bary 2009).⁵⁰ A complexive reinterpretation involves a specified or implicit endpoint for the state or activity, so that the TSit has ended (Bary 2009:19). This delimits an atelic situation and makes it compatible with perfective aspect,

⁵⁰ She works with aspect in Ancient Greek, but as has been stated, this phenomenon is often found cross-linguistically.

which ordinarily specifies the endpoint of the situation. An ingressive reinterpretation indicates only that the TSit has begun (Bary 2009:27). This reduces the length of the original TSit to a single moment, so that the new TSit becomes only the beginning of the original TSit. Because only the beginning of the situation is specified, the atelic predicate becomes telic—the stative interpretation is coerced into an interpretation expressing a change of state. Below are examples for both complexive and ingressive interpretations for WEQATAL:

(20) Complexive—Micah 4:10c-e

כִּי־עַתָּה תֵצֵא מִקִּרְיָהּ וְשָׁכַנְתָּ בַשָּׂדֶה וּבָאתָ עַד־בָּבֶל
 kî-^ʿattā^h tēṣṣî miqqiryā^h wəššākant baššāde^h ûbāṭ^ʿ ad-bābel
 “For now, you will go out from the city, and you will dwell in a field, and you will come to Babylon”

(21) Ingressive—Amos 8:3a

וְהִלְלוּ שִׁירֹת הַיָּכֹל בַּיּוֹם הַהוּא
 wəhēlîlû šîrôt hêkāl bayyôm hahû^ʿ
 “The songs of the temple will become wailings in that day”

In example (20), the predicate “dwell in a field” is atelic, and because of this, it has no inherent endpoint. There is no lexically specified Target State that would indicate the predicate is over. However, the perfective aspect needs an endpoint, and in this case, the context makes clear that the situation does indeed have an endpoint. This is because the three situations represented in the verse (going from the city, dwelling in a field, and coming to Babylon) occur one after the other. Where one TT/TSit ends, the next begins. So, the dwelling in the field in this verse has an endpoint even though it is not specified by the predicate, i.e. it ends when the people go to Babylon.⁵¹

⁵¹ The progression in the verse of *going out*, *dwelling*, and *coming to* is what favors the complexive interpretation over an ingressive interpretation. One may consider the *dwelling* to be ingressive (which is what the NIV seems to suggest), but this would suggest a closer relationship between the *going out* and the *dwelling* than all three together.

Example (21) is ingressive because it specifies only the beginning of the activity of wailing. *Wailing* is an atelic predicate, so the perfective WEQATAL is reinterpreted to specify only the onset of the situation. The TSit for *wailing* has no inherent endpoint, so the original TSit is reduced to a very small interval when the situation first begins. This new TSit is included within the TT to yield the ingressive interpretation.⁵²

Although this does seem to account for the data regarding aspect with WEQATAL, de Swart says that aspectual coercion has been challenged as a viable way to account for these kinds of interpretations (de Swart 2012:770). Rather than the predicate being reinterpreted, it could be that the lexical item involved has a broader range of meaning. In BH, this can be seen with the copula which can either mean that a state currently holds or that something is entering into a state, i.e. it can mean *be* or *become* (Brown, Driver & Briggs 1994:224–227; Joosten 2012:84). It is difficult to tell which is correct, and it would take a much broader study of how WEQATAL interacts with a variety of atelic predicates in order to determine the answer. Nevertheless, the fact that this phenomenon seems to be fairly common cross-linguistically and accounts for the data suggests that BH also has aspectual coercion. Moreover, the same phenomenon occurs for the past-perfective WAYYIQTOL as I show below. Because no examples of imperfective aspect were found for WEQATAL, it interacts with the aktionsart of the predicate similarly to perfective forms in other languages (with aspectual coercion). Because the habitual interpretations are not incompatible with perfective aspect (as shown in section 3.2.4), WEQATAL should be considered marked for perfective aspect. In other words, perfective aspect is part of the invariable meaning of WEQATAL.

⁵² Bary theorizes that the Duration Principle determines whether the predicate is interpreted as ingressive or complexive, but her illustrations and reasoning are difficult to apply to these examples (see Bary 2009:92-93 for a fuller discussion).

3.3.4 Habitual WEQATAL

Like QATAL, WEQATAL can also express habituality. Sometimes, the situation is a true habitual involving many situations, so the interpretation is similar to what a normal QATAL would be. An example of this is found in Amos 8:14:

(22) Amos 8:14a-b

הַנִּשְׁבָּעִים בְּאִשְׁמַת שֹׁמְרוֹן וְאָמְרוּ חֵי אֱלֹהֵיךָ דָּן
 hannišbā'im bə'ašmat šōmrōn wə'āmrû hê 'ēlōhē^ýkā dān
 “The ones who swear by the guilt of Samaria and say, ‘As your god lives, Dan’”

Those who say “As your god lives, Dan” do not do so only once, but it is a characteristic property of some individuals done over and over again. This interpretation is evident by the WEQATAL being parallel to the nominal participle that describes a characteristic of the people. While this is a present habitual, Hatav points out that WEQATAL can also express habituality in the past (see also example (18)) as well as generic statements that involve a normal characteristic of a class (see Hatav 1997:144–145 for her examples of generics, which she calls “gnomics”—I consider Genesis 2:25b to be a clear example).

3.3.5 WEQATAL and Modality

As explained in 2.5.2.1, many languages use irrealis forms for future situations and habituals, but WEQATAL is also used to express modality. There are no clear examples of deontic modality expressed by WEQATAL within my corpus (outside the corpus, several examples are Exodus 12:24a; Leviticus 6:4a; Numbers 35:25a). However, this use is widely recognized (Hatav 1997:148; Cook 2012:255; Joosten 2012:295–296), so I present examples (23) and (24) below to give a fuller picture of how WEQATAL can function.

(23) Deontic Modality—Exodus 12:24

וְשִׁמַּרְתֶּם אֶת־הַדָּבָר הַזֶּה לְחֻק־לֵךְ וּלְבִנְיָךְ עַד־עוֹלָם
 ūšəmartem ʔet-haddābār hazze^h ləhoq-ləkā ūləbāne^ýkā ʿad-ʿōlām
 “And you must observe this thing as an ordinance for you and for your sons forever.”

(24) Circumstantial Modality—Exodus 23:11a-c

וְהַשְׁבִּיעַתָּ תְּשֻׁמְתָּהּ וְנִטְשָׁתָהּ וְאָכְלוּ אֲבִינִי עִמָּךְ
 wəhaššəbî‘t tišməṭennā^h ûnəṭaštāh wə‘āklū ‘ebyōnê ‘ammēkā
 “And on the seventh, you must let it rest and leave it alone, so the poor of your people
 can eat.”

Example (23) indicates the necessity of observing an ordinance. Thus, it is a deontic modal and is an example of how WEQATAL can function to depict necessary situations. On the other hand, example (24) shows how WEQATAL can be used for possibility and for a different type of modality altogether. The clause “can eat” is preceded by two deontic modals that create the circumstance in which it is possible for the poor to eat. So, it is an example of a circumstantial modal indicating possibility. These two clauses show that WEQATAL is unmarked for the strength and type of modality, which suggests that WEQATAL should be categorized as an irrealis form rather than a modal form (the latter usually specifies either the strength or type of modality—see section 2.4).

3.3.6 WEQATAL and Irrealis Verbal Mood

The definition given for irrealis verbal mood in 2.5.2.1 emphasized that irrealis forms often had an amalgamation of functions that could broadly be categorized as unactualized. All of the functions listed above (future, past and present habitual, and modality) may fall under this unifying semantic description (of course, WEQATAL also expresses perfective aspect as shown above). WEQATAL also has functions similar to other irrealis forms, such as its use in conditionals. It is widely recognized that WEQATAL is often found in the apodosis of conditional constructions (Hatav 1997:146–147; Cook 2012:250–253). According to de Haan, this is normal for an irrealis form (2012:123). Example (25) shows a typical conditional construction in BH:

(25) Amos 6:9a

אִם-יִתְּרוּ עֲשָׂרָה אָנָשִׁים בְּבַיִת אֶחָד וּמָתוּ
 ‘im-yiwwāṭrū ‘āśārā^h ‘anāšīm bəbāyit ‘eḥād wāmētū
 “If ten men remain in one house, they will die.”

The range of functions that WEQATAL has is remarkably similar to irrealis forms in other languages. It has a limited set of possible modal interpretations and is mostly used for future perfective situations, though it can also function habitually in any time sphere and in the apodosis of conditionals. This set of functions is quite similar to how Comrie describes the irrealis form in Dyirbal (Comrie 1985:39–40):

However, despite the terminology adopted for Dyirbal, which identifies the two tenses as present-past and future respectively, the distinction between them is more accurately described as one of mood, namely realis versus irrealis respectively. The realis is used for situations that are ongoing or were observed in the past, the irrealis for all other situations, including situations that are presented as inductive generalisations from past observations to statements of general habit.

As will be discussed more thoroughly in the following section on YIQTOL, the functions listed for WEQATAL accord well not only with Dyirbal but with many other irrealis forms from a variety of languages. Yet, although WEQATAL does express unactualized situations, it has a limited range of modal functions (Cook 2012:255), and there are certain unactualized situations that it does not express, such as those indicating purpose or consequence after certain subordinating particles. Given that WEQATAL only has a limited number of irrealis uses, we should naturally expect Biblical Hebrew to express a broader range of unactualized situations using some other means. This is done using the YIQTOL form as shown below.

3.3.7 *Comparison with other theories*

As mentioned above, my theory for WEQATAL is very similar to Cook's. His theory states that QATAL may be fronted for irrealis mood. It keeps its perfective value when this happens (not its perfect meaning), and it is often, but not always, sequential (therefore, sequentiality is not a part of its invariable meaning; Cook 2012:249–256). I am adopting all of this, but I leave undecided the question of whether WEQATAL is a separate conjugation or is just a QATAL fronted for irrealis verbal mood. Our position differs from Joosten's primarily in that, though he states that it is not imperfective, he does not affirm that it is perfective (Joosten 2012:288–289). As far as the taxonomy of uses Joosten gives, they are

very similar to Cook's, though I would regard it as linguistically preferable to call the form irrealis rather than modal. Contrary to Hatav, WEQATAL is not always sequential (cf. Hatav 1997:56), as will be shown in the next chapter on discourse. Because sequentiality is often associated with perfectivity, the latter can account for why a form is often sequential, but if sequentiality is encoded in the form itself, then a non-sequential function cannot be accounted for. In this, Cook's theory accounts more fully for the data.

My only substantial modification to Cook's position is that I have proposed an added component to the irrealis-perfective model: the form reinterprets atelic predicates to either an ingressive or a complexive reading. In other words, when the predicate does not specify that the state or activity has an endpoint, the perfective value of WEQATAL reinterprets the predicate to specify the endpoint. However, as was stated, this is still only a hypothesis, so more data from a larger corpus may prove otherwise.

3.4 YIQTOL

Of all the forms in BH, YIQTOL might be the most controversial. Like the QATAL form, it also has a remarkably broad range of meaning. Unlike most Hebraists, I label it neither a modal form nor an imperfective form, but I consider its invariable meaning to be irrealis verbal mood. Instead of first charting the tense and aspect functions that the form may express as I did for QATAL, I begin with YIQTOL's modal meanings in the hope that they will shed light on how YIQTOL differs from the other forms (besides WEQATAL, but even WEQATAL does not have as many modal functions as YIQTOL). If a form could be used modally, we should expect to find one of two things that are distinct from a form without modal functions. First, if the form is a true modal form, we should expect that it specifies either a type of modality or the strength of modality. Second, if the form only has modal functions but is not specified for either the type or strength of modality (and so, does not have modality as part of its invariable meaning), we should expect to find that the type and strength of modality are determined by context. However, it is very important to remember that *a true modal form will either specify the strength of modality or the type of modality*. As is shown below, the YIQTOL form has a very broad range of modal functions, not being

specified for either strength or type of modality (and it has many non-modal functions as well). Because it is not specified for either strength or type of modality, it is not a modal form (see section 2.4). Thus, I consider it to be an irrealis form, meaning that the situation it refers to is unactualized, and as a result of this meaning it can be used for various modal functions.⁵³

3.4.1 Strength of Modality

Many languages use different modal forms which lexically specify the strength of modality (possibility vs. necessity). This is the case in English where we have different auxiliaries, such as *may*, *should*, *must*, etc., that determine the strength of the modality. In BH, the YIQTOL form can express different strengths of modality (possibility or necessity), depending on the context, so YIQTOL is underspecified for the strength of modality. This is shown in the following examples:

(26) Amos 5:14a-c

דְּרִשׁוּ-טוֹב וְאַל-רָע לְמַעַן תַּחְיֶוּ
 diršû-ṭôḅ wəʾal-rāʿ ləmaʿan tihyû
 “Seek good and not evil, so that you may live.”

(27) Amos 2:12b

וְעַל-הַנְּבִיאִים צִוִּיתָם לֵאמֹר לֹא תִנָּבְאוּ
 wəʿal-hannəḇîʾim ṣiwwîtem lēʾmôr lōʾ tinnābû
 “And concerning the prophets, you commanded, saying ‘You must not prophecy.’”

Examples (26) and (27) above have different modal strengths. In Amos 5:14, the modal specifies that it is possible that “you” may live, i.e. if “you” seek good and not evil. Hence, Amos 5:14 says that living is possible. In contrast, Amos 2:12 is the strongest modal

⁵³ I am not suggesting that every irrealis form has modal functions, only that an irrealis meaning can account for the modal functions expressed by YIQTOL (see section 2.5.3 for how irrealis can account for modality; see also section 2.5.2.1 for languages, such as Jamul Tiipay, that have an irrealis form with modal functions).

possible because it specifies a necessary obligation: the prophets were required not to prophecy. Hence, YIQTOL can be used for varying levels of possibility and necessity.

3.4.2 *Type of Modality*

Von Fintel’s definition of modality presented in chapter two says that type of modality is the second major component to modals (besides strength). So a proposition might be necessarily true in light of what the speaker knows (epistemic), or the situation described might be required by the relevant code or authority (deontic) depending on the type of modality. Just as YIQTOL is underspecified for the strength of modality, it is also underspecified for the type of modality. But whereas WEQATAL was quite limited in what types of modality it can express, YIQTOL may be interpreted with a variety of modal nuances. Some of these are found in the following examples:

- (28) Deontic Modality—“concerns what is possible, necessary, permissible, or obligatory, given a body of law or a set of moral principles or the like” (Von Fintel 2006)
Amos 2:12b

וְעַל-הַנְּבִיאִים צִוִּיתָם לֵאמֹר לֹא תִנְבְּאוּ
wəʿal-hannəḇîʾim šiwwîtem lēʾmōr lōʾ tinnābû
“And concerning the prophets, you commanded, saying ‘You must not prophecy.’”

- (29) Epistemic Modality—“concerns what is possible or necessary given what is known and what the available evidence is” (Von Fintel 2006)
Amos 5:15d

אוֹלֵי יִחְנֶן יְהוָה אֱלֹהֵי-צְבָאוֹת שְׂאֲרִית יוֹסֵף
ʔūlay yeḥēnan yhwḥ ʔēlōhê-šəḇāʾôt šəʾērîṭ yôṣēḫ
“Perhaps YHWH, the God of armies, might be gracious to the remnant of Joseph.”

- (30) Circumstantial Modality—“concerns what is possible or necessary, given a particular set of circumstances” (Von Fintel 2006)
Micah 2:3b

הַנִּנִּי חֹשֶׁב עַל־הַמְשָׁפְחָה הַזֹּאת רָעָה אֲשֶׁר לֹא־תִמְיֹשׁוּ מִשָּׁם צִוְּאֹתֶיכֶם
hinnî ḥōšēḇ ʿal-hammišpāḥā^h hazzōʾt rāʿā^h ʾāšer lōʾ-tāmīšû miššām šawwəʾrōtēkem
“Behold, I am devising evil for this family, from which they will not be able to remove their necks.”⁵⁴

- (31) Dynamic Modality—concerns what is possible or necessary for a person to do given their nature
Amos 7:2e-f

מִי יִקוּם יַעֲקֹב כִּי קָטָן הוּא
mî yāqûm yaʿqōḇ kî qāṭōn hûʾ
“How can Jacob stand? For he is small.”

Example (28), Amos 2:12b, was given above under the strength of modality. It reports a necessary obligation that was given in the past. Amos 5:15d, example (29) showing epistemic modality, presents what the speaker believes could possibly happen in the future. Given what Amos knows, he asserts that it is still possible that YHWH will be gracious to the remnant of Joseph in the future. Example (30) does not report merely an inability intrinsic to the family, but what is not possible given the set of circumstances God will put the family in (dynamic modality would specify an inherent characteristic of the people that resulted in the inability rather than a characteristic of the circumstances). In the last example showing dynamic modality, the YIQTOL reports what is not possible given the nature of Jacob. Because Jacob is so small, he is not able to stand. In each case, a different type of modality is represented, and the context is what determines the type.

The above examples in this and the previous section show that YIQTOL regularly expresses a variety of modal interpretations. It has a much greater capacity to express different types of modality than WEQATAL. Speakers of BH could certainly express modality, just as speakers of English can, but whereas the strength of modality in English

⁵⁴ For support for this interpretation, see (Waltke 2009:98; Andersen & Freedman 2006:257; Hillers 1984:31).

is formally integrated into the modal system by its many auxiliaries and the type is determined by context, modal strength and type are both determined by context in BH. So YIQTOL clearly has modal functions, but because both the strength and the type of modality are conditioned by the context for YIQTOL, it is not a modal form. In the following sections, I argue that YIQTOL's tense and aspect functions, along with the modal functions just presented, make irrealis verbal mood the invariable meaning (and as a consequence, the best label for it).

3.4.3 *Time Reference*

The charts below show the tense and aspect distribution of the YIQTOL forms in my corpus that are relevant for this purpose, i.e. those occurring in declarative sentential mood but not in conditionals, subordinate clauses of purpose and consequence, after comparative particles, and the modals.⁵⁵ In other words, the two charts show only the habitual and future uses of the irrealis YIQTOL form. The full listing of the other categories can be found under the YIQTOL section of Appendix 1.

Table 7: Relationship between Time of Writing and TSit for YIQTOL

Time Reference		
Past	Present	Future
6	25	164

⁵⁵ I exclude modals from the tense and aspect functions because the relationship between tense and aspect and modality is an open debate in general linguistics (for a brief discussion, see Depraetere 2012).

Table 8: Tense and Aspect Functions of YIQTOL

Aspect	Tense		
	Past	Present	Future
Perfective	7 ⁵⁶		120
Imperfective	X ⁵⁷		19
Habitual	6	25	25
Perfect			

As can be seen, YIQTOL is often used with future time, but it can be used in any time sphere. This is well-known in studies of the BHVS and can be seen by the following examples.

(32) Past—Amos 4:7b-c

וְגַם אֲנֹכִי מְנַעְתִּי מִכֶּם אֶת־הַגֶּשֶׁם בְּעוֹד שְׁלֹשָׁה חֳדָשִׁים לְקַצִּיר וְהַמְטַרְתִּי עַל־עִיר אַחַת
וְעַל־עִיר אַחַת לֹא אֶמְטִיר

wəḡam ʿānōkî mānāʿtî mikkem ʿeṭ-haggéšem bəʿôd šəlōšā^h ḥōdāšîm laqqāšîr

wəhimṭartî ʿal-ʿîr ʿeḥāṭ wəʿal-ʿîr ʾaḥaṭ lōʾ amṭîr

“I also withheld the rain from you when it was still three months to harvest-time. I would cause it to rain upon one city, and upon another city, I **would not cause it to rain.**”

(33) Present—Amos 2:7a

הַשֹּׂאֲפִים עַל־עַפְר־אָרֶץ בְּרֹאשׁ דָּלִים וְדָרְךְ עֲנִיִּים יִטּוּ

haššōʾāpîm ʿal-ʿāpar-ʿéreš bəroʾš dallîm wəḏérek ʿānāwîm yaṭṭû

“The ones who trample the heads of the poor into the dust of the earth and **turn aside** the way of the oppressed.”

⁵⁶ There is a disputed “preterite” use of YIQTOL with a couple different particles (ʾāz ‘then’, as used in Exodus 15:1, and ʾérem ‘before’, as used in Joshua 3:1) that appear infrequently in the Hebrew Bible but not in my corpus (for a discussion, see Cook 2012:260–263). Different explanations have been offered, but calling the YIQTOL form imperfective or modal does not help to explain these functions any more than calling it irrealis.

⁵⁷ I did not find any examples of past imperfective aspect in my corpus, though those who espouse the imperfective YIQTOL theory state that it can be used for indicative past-imperfective. Most of the examples are disputed, and these are discussed below under the comparison section 3.4.7.1.

(34) Future—Micah 1:4a

וְנִמְסוּ הַהָרִים תַּחְתָּיו וְהַעֲמָקִים יִתְבַּקְּעוּ
 wənāmássû heḥārîm taḥtāyw wəhāʿāmāqîm yitbaqqāʿû
 “And the mountains will melt under him, and the valleys will be split apart.”

Examples (32) and (33) represent habitual situations that are in the past and the present respectively, while example (34) depicts a situation that will take place in the future. Although this shows that YIQTOL is possible in any time sphere, like WEQATAL it is most often found with future time reference. As discussed under the WEQATAL section above, this is normal for an irrealis form. Comrie observes that a future tense-like interpretation is often found with irrealis forms (Comrie 1985:45). Just as the comparison with Dyirbal shed light on WEQATAL, the same amalgam of functions are also relevant for the YIQTOL form because it also may be used for future time as well as past and present habitual situations. Given its usage in any time sphere, it is best to categorize YIQTOL as unmarked for tense.

3.4.4 *YIQTOL and Aspect*

Much of the debate surrounding the YIQTOL form involves aspect.⁵⁸ Before entering upon the subject, several things must be remembered. First, just because a form is not specified for aspect does not mean the situation encoded by the predicate has no aspectual features. There is still a relationship between the TSit and the TT even if this relationship is not encoded in the form. Thus far in our study of BH, we have seen that at least YIQTOL and QATAL do not express tense, but that does not mean the events they describe are not situated in time, or that there is no relationship between the TA and the TT. Rather, the irrealis value of YIQTOL normally gives it a future interpretation (as is common with irrealis forms), while the perfect or perfective value of QATAL normally gives it a present or past interpretation respectively. Although neither of these forms encode tense, the situations they depict are still located in time indirectly by their perfective/perfect and verbal mood

⁵⁸ For articles on the two positions ordinarily taken, see (Joosten 2002; Cook 2006).

meanings (as well as adverbial phrases, context, etc.). In a similar way, the TSit's depicted by non-aspectual forms still must have some relationship to the TT (the definition of aspect given in section 2.3.2), but when a form does not have an aspectual value as part of its invariable meaning, this relationship would not come from the form itself. Rather, it would come from something else, such as the aktionsart of the predicate, adverbial phrases, or context. I am proposing that YIQTOL itself says nothing about the aspect of the predicate, but it receives its aspectual interpretation from the aktionsart of the predicate plus the context. This means that it may have an imperfective use at times, but this does not come from the form itself. An implication of this is that finding imperfective examples of YIQTOL *does not prove* that the form is imperfective just like finding future examples of YIQTOL does not prove that it encodes future tense. These interpretations must be related to an invariable meaning (or meanings if one single meaning cannot account for the functions).

Cross-linguistically, non-aspectual forms can be found in Russian, German, and Inuktitut (Bohnmeyer & Swift 2004). Although the overall system is different in each of these languages, as a general rule the non-aspectual forms take their aspectual interpretation from the aktionsart of the predicate, specifically its telicity value (Bohnmeyer & Swift 2004:264). When an atelic predicate combines with a non-aspectual form, the preferred interpretation is imperfective, but with a telic predicate, the same form is generally interpreted perfectly (Bohnmeyer & Swift 2004:264–266). These are only tendencies that may be cancelled given the right context, but where there is a contrast with a marked aspectual form (such as in Russian), these tendencies may be strengthened (Bohnmeyer & Swift 2004:269–270). In BH, there is indeed a contrast because the WEQATAL form is specified for perfective aspect and is irrealis. However, the situation is more complicated in the BHVS because the participle (marked for imperfective aspect) can be used in any time (including the future). The implication of this is that the aspectual value of a future situation may be depicted using WEQATAL (perfective), the participle (imperfective), or YIQTOL (either perfective or imperfective).

Waltke and O'Connor have already noted that the variety of functions expressed by YIQTOL cannot be accounted for by imperfective aspect (Waltke & O'Connor 1990).

Hence, they have labelled the form “non-perfective” rather than imperfective. It is not clear how this helps them to account for the modal meanings, or any meaning at all, since a true non-perfective form could presumably have any interpretation other than perfective (which is what they suggest for YIQTOL; Waltke & O’Connor 1990:502). This does not help to explain why it is often used in future time or how it can indicate possibility and necessity or why it is used with past habituals. It just says that it is different than the QATAL form. Yet what is most problematic about this stance is that YIQTOL actually *can* get a perfective interpretation, and that quite routinely as my data shows. If the invariable meanings of YIQTOL and QATAL consist in a privative opposition between the two forms where YIQTOL cannot express perfective aspect (being a so-called *imperfective* or *non-perfective* form), then finding examples of YIQTOL with a perfective interpretation would be directly contradictory to the invariable meaning. Since YIQTOL can express perfective aspect, its aspectual interpretation varies between perfective and imperfective, and so its aspectual value is not part of the invariable meaning. Labelling the form “imperfective” or “non-perfective” would then not be an indication of the form’s invariable meaning.

I proposed above that YIQTOL gets its aspectual interpretation from the aktionsart of the predicate and the context. This means that for states and activities (atelic predicates), the interpretation of the TSit is normally understood to be either equivalent to the TT (perfective) or extending beyond it (imperfective), but for accomplishments and achievements (telic predicates), the TSit is normally interpreted to be located within the TT (so the Target State is reached, and it is perfective). When it combines with atelic predicates, YIQTOL may be interpreted as either complexive (the situation has ended) or imperfective (the situation has not ended). Essentially, this means that YIQTOL normally expresses perfective aspect for telic predicates and may be either imperfective or perfective for atelic predicates. The different aspectual interpretations of YIQTOL are shown in the following examples:

(35) Perfective—Amos 6:7a

לְכֹן עֲתָה יִגְלוּ בְּרֹאשׁ גָּלִים

lākēn ʿattā^h yiḡlū bərōʾš gōlīm

“Therefore, now they **will go into exile** first of the exiles.”

(36) Complexive/Imperfective—Micah 5:4c⁵⁹

וְכִי יִדְרֹךְ בְּאַרְמְנֵינוּ וְהִקְמֵנוּ עָלָיו שִׁבְעָה רֹעִים

wəḵî yidrōḵ bəʾarmənōtēnū wahāqēmōnū ʿālāyw šibʿā^h rōʿīm

“And when he **treads** on our fortresses, we will raise up seven shepherds against him.”⁶⁰

(37) Imperfective—Amos 7:2e-f

מִי יָקוּם יַעֲקֹב בִּי קָטָן הוּא

mî yāqûm yaʿqōb kî qāṭōn hūʾ

“How **can** Jacob **stand**? For he is small.”⁶¹

In example (35), the predicate *go into exile* is telic, i.e. the situation has a natural endpoint, the arrival of the people in exile.⁶² Thus, YIQTOL is taken to be perfective here. Amos is not saying that the people will be going into exile (but potentially not make it), but that they will actually reach the state of exile before others reach it. In Micah 5:4 (example (36)), the activity *treading* is set in future time, and it is ambiguous between a complexive reading and an imperfective reading. The complexive reading would mean that after ‘he’ (Assyria) treads on the fortresses for a certain period of time, seven shepherds are raised up to defeat them. The imperfective reading would mean that as Assyria is in the midst of treading on the fortresses, seven shepherds will be raised up. Given the context, the latter is more likely because Israel is actually delivered from Assyria (Micah 5:5) in the midst of battle. Example (37), Amos 7:2e-f, was presented above as a dynamic modal.

⁵⁹ This is Micah 5:5 in the English Bible. I follow the numbering in the Hebrew Bible throughout.

⁶⁰ I translate the YIQTOL with the simple present tense in English (as the form normally used in subordinate clauses), but the interpretation should either be future perfective or future imperfective.

⁶¹ For more possible examples of dynamic modals used in the present with imperfective aspect, see Amos 7:5c, 10c; Micah 3:11e; Zephaniah 3:5a, 17a.

⁶² Brown, Driver, and Briggs (1994:162) for example give the meaning *go into exile*, suggesting that the endpoint of the agent’s movement is lexically specified as arrival into exile.

Jacob's inability to stand is a present state that does not have a specified endpoint. Hence, Jacob is in the midst of the state, so the verb should be taken imperfectively.

Example (37) is particularly important because my claim is that it is indisputably imperfective and so shows that YIQTOL is unmarked for aspect. This is a dynamic modal, so it shows what is possible or necessary given a person's nature (see the explanation above under the modality section for YIQTOL). While the context is responsible for this interpretation here, ability may also be lexically specified with the verb *to be able*. In my corpus, this is found in Amos 7:10c where the reference is also to a present ongoing state. Joosten points out that the verb in BH for *to be able* can be used with present time reference with an imperfective-like sense (Joosten 2012:93). Since this is an inherently modal verb that lexically specifies dynamic or circumstantial modality and it is an atelic state, we should expect that such a verb used with the YIQTOL form would be interpreted imperfectively if YIQTOL was unmarked for aspect. And indeed, this is the case in my data. But the dynamic modal above in (37) is not lexically specified for modality—it is context that forces the dynamic interpretation, and this can combine with any predicate for a present imperfective interpretation. As the example shows, it is not just *to be able* that can be found indicating a present ongoing ability, but it is any verb in the YIQTOL that is used as a dynamic modal (and any atelic predicate as long as it is unactualized).

As with tense, I conclude that YIQTOL is also unmarked for aspect because it functions both perfectly and imperfectively. This allows it to indicate possibility or necessity in any time sphere with perfective or imperfective aspect. Thus, its broad range of tense and aspect functions are a result of it being unmarked for both tense and aspect.

3.4.5 *Habitual YIQTOL*

YIQTOL is similar to WEQATAL in its ability to express habituals in any time sphere. Past and present habituals are found in the above examples under time reference. I repeat them here as well as a future habitual:

(38) Past—Amos 4:7b-c

וְגַם אֲנֹכִי מְנַעְתִּי מִכֶּם אֶת־הַגֶּשֶׁם בְּעוֹד שְׁלֹשָׁה חֳדָשִׁים לְקָצִיר וְהַמְטַרְתִּי עַל־עִיר אֶחָת
וְעַל־עִיר אֶחָת לֹא אֶמְטִיר

wəḡam ʿānōkî mānāʿtî mikkem ʿet-haggēšem bəʿôd šəlōšā^h ḥōdāšîm laqqāšîr
wəhimṭartî ʿal-ʿîr ʿehāṭ wəʿal-ʿîr ʾaḥaṭ lōʿamṭîr

“I also withheld the rain from you when it was still three months to harvest-time. I would cause it to rain upon one city, and upon another city, I would not cause it to rain.

(39) Present—Amos 2:7a

הַשֹּׂאֲפִים עַל־עַפְר־אָרֶץ בְּרֹאשׁ דָּלִים וְדָרְךְ עֲנִיִּים יִטּוּ
haššōʿāpîm ʿal-ʿāpār-ʿéreš bərōʾš dallîm wəḏerek ʿānāwîm yattû
“The ones who trample the heads of the poor into the dust of the earth and turn aside the way of the oppressed.”

(40) Future—Zephaniah 3:13d

כִּי־הִמָּה יִרְעוּ וְרָבְצוּ וְאֵין מַחְרִיד
kî-hēmmā^h yirʿû wərāḇṣû wəʿên maḥārîd
“For they will feed and lie down, and there will be no one to terrify.”

Example (38) describes how God habitually withheld rain from certain cities in Israel in order to punish them. It reports a habit in the past, as is common with YIQTOL. In example (39), repeated from example (33) above, the habit presented is in the present. The oppressors repeatedly, and characteristically, turn aside the way of the oppressed. Example (40) is describing a situation that holds in the future, for the feeding and lying down that will take place is not a one-time event, but it is a characteristic situation of the time after salvation.

As for generics, I follow Hatav who shows that YIQTOL can be used generically as well as habitually (Hatav 1997:144-145). It may thus generalize about a class and be used for a characteristic situation of a certain time period. This is shown in the following example:

(41) Generic—Amos 6:12a

הִירְצוּן בַּסֵּלַע סוֹסִים

hayəruṣûn basséla^c sūsîm

“Do horses **run** on rocks?”

Because a characteristic situation of an entire class (horses) is referred to, this is not a habitual situation; rather it is generic. Horses as a class have a strong tendency not to run on rocks, so the situation described is a generic.

3.4.6 YIQTOL and Irrealis Mood

As noted in chapter two, determining a single semantic meaning for the category of irrealis is difficult, but there are a set of functions that are typical with irrealis forms. Other than future, habitual, and the different modal uses, all of which may be expressed with an irrealis form, conditions, purpose clauses, consequence clauses, and hypothetical situations are also common functions for an irrealis form (see section 2.5.2.1). These are found in the following examples (the condition and purpose clause examples are repeated from above—example (25) is repeated as (42) and (26) as (43)):

(42) Amos 6:9a—Protasis of condition⁶³

אִם-יִתְּרוּ עֲשָׂרָה אָנָשִׁים בְּבֵית אֶחָד וּמָתוּ

ʔim-yiwwātrû ʕāšārā^h ʔanāšîm bəbáyit ʔehād wāmēṭû

“If ten men **remain** in one house, they will die.”

⁶³ YIQTOL is found in a marked conditional clause in the following verses in my corpus: Amos 3:6a, b, c; 5:19a, 22a, b, c; 6:9b; 8:7b; 9:2a, b, c, d, 3a, b, d, e, 4a, b. The following are most likely unmarked conditional clauses: Amos 3:8b, d; 5:3b, c; Micah 3:4a.

(43) Amos 5:14a-c—Purpose clause⁶⁴

דְּרִשׁוּ-טוֹב וְאַל-רָע לְמַעַן תַּחֲיוּ

diršû-tôḇ wəʿal-rāʿ ləmaʿan tiḥyû

“Seek good and not evil, so that you may live.”

(44) Amos 5:6a-c—Consequence clause

דְּרִשׁוּ אֶת-יְהוָה וְחַיו פֶּן-יִצְלַח כְּאֵשׁ בֵּית יוֹסֵף

diršû ʿet-yhwh wiḥyû pen-yiṣlah kāʿēš bêt yôseḇ

“Seek the LORD, and live lest he break out like fire on the house of Joseph.”

(45) Amos 9:9b-c—Hypothetical situation

וְהִנֵּעֹתִי בְכָל-הַגּוֹיִם אֶת-בֵּית יִשְׂרָאֵל כְּאֵשׁ יִנּוֹעַ בְּכַבְרָהּ

wahānīʿôṭî bəkol-haggôyim ʿet-bêt yiśrāʾel kaʿāšer yinnôʿ⁶⁵ bakkəḇārā^h

“I will shake the house of Israel among all the nations as a sieve is shaken.”⁶⁵

In example (42), YIQTOL is used in the protasis of the condition following the conditional particle (*ʿim* ‘if’). The last clause in example (43) has a YIQTOL form following the subordinating purpose particle (*ləmaʿan* ‘so that’). Finally in example (44), the consequential particle (*pen* ‘lest’) precedes YIQTOL, indicating consequence. All of these clauses are typical examples of what is found in the Hebrew Bible. Cook gives the following statistics for verb forms associated with the above particles: ‘if’ 315 with YIQTOL and 125 with QATAL,⁶⁶ ‘so that’ 121 with YIQTOL and 2 with QATAL, and ‘lest’ 128 with YIQTOL and 15 with QATAL (Cook 2005b:13). As can be seen, YIQTOL is used in the

⁶⁴ I am simplistically labeling all of the clauses following *so that* ‘purpose clauses’, though the actual rhetorical relation might be slightly different. YIQTOL is the only finite form following this particle in my corpus, and the other example is Amos 9:12a.

⁶⁵ Every occurrence in my corpus of the comparative particle here translated ‘as’ uses a YIQTOL form after it to show a comparison to a hypothetical situation. The clauses are Amos 2:13b; 3:12b; 9:9c-d; Micah 5:6b-c.

⁶⁶ The seemingly high count for QATAL within conditionals is due to its use in counterfactual constructions (Hatav 1997:130). This is to be expected because counterfactuals are often expressed with past tenses cross-linguistically (Iatridou 2000), and QATAL is the only form that can express a past-perfective meaning while co-occurring with particles. YIQTOL, on the other hand, is used for the more common hypothetical conditional.

overwhelming majority of the time in conditions and subordinate clauses that express either purpose or consequence. This is in line with what should be expected for an irrealis form.⁶⁷

In example (45), the situation after ‘as’ does not actually occur in the real world, i.e. no specific situation is being described; hence, it is represented by the irrealis form, YIQTOL. God is not saying that he will shake the people as a sieve is currently being shaken, but that he will shake them in the same way as if a sieve were being shaken. Although it is possible to use YIQTOL for real-world situations in the future as shown above, YIQTOL is the only form used in my corpus for this type of hypothetical situation.

Given the above functions, how should YIQTOL be labelled? It is used modally to indicate possibility and necessity. It is used perfectly and imperfectly and in any time sphere with habituais, and it is the ordinary form for the protasis of conditionals, purpose clauses, and consequence clauses. It might be tempting to call the form a modal because it expresses various types of modality, but it also expresses more than just modal meanings (particularly futures, habituais, conditionals, and hypothetical situations). This range of functions is remarkably similar to the most common set of functions for irrealis forms cross-linguistically. In chapter two, I noted that Cristofaro found the most common type of irrealis form to be one that encodes unactualized situations, such as future, conditions, wishes, obligations, and past habituais (see section 2.5.2.1). In her work, she goes on to list several languages that fall under this first category, some of which have almost identical sets of functions to YIQTOL. To show the similarities, I have underlined the functions that also coincide with the YIQTOL form. Her list for Kayardild includes “obligation, future, prescriptions, desire, ability, commands, purpose and habituality in the past” (Cristofaro 2012). Her list for Manam includes “future and possible states of affairs, commands, permission, negative purpose, the protases and apodoses of counterfactual conditionals, unfulfilled wishes, and complements of ‘want’ and ability verbs (in addition to that, the construction can also be used to encode habituality)” (Cristofaro 2012). Her list for Jamul

⁶⁷ I briefly noted in chapter two that I consider irrealis and subjunctive to be semantically equivalent and essentially different names for the same phenomenon. Cook’s data shows that there is a very strong tendency for YIQTOL to behave like a subjunctive would in Ancient Greek, for example, which has a subjunctive mood that is often found in subordinate clauses indicating various relationships such as purpose.

Tiipay includes “future and possible states of affairs, obligation, inferences, purpose, conditions, and complements of ‘want’ verbs” (Cristofaro 2012). In his study on irrealis forms, de Haan gives four languages that have morphemes used for past habituals that are also used for future, one of which is West Greenlandic, whose irrealis morpheme can also be used for obligation (de Haan 2012:122). YIQTOL is also used in all of these ways, and its functions match West Greenlandic almost perfectly (though YIQTOL is slightly broader if de Haan has listed all of the functions for the West Greenlandic morpheme).

From a diachronic perspective, Haspelmath notes that a number of languages have a present tense form that changes meaning to a future or a subjunctive (Haspelmath 1998). Such languages have a new present/progressive form that has largely taken over the present imperfective use (Haspelmath 1998:34), which seems to be the case with the participle in Biblical Hebrew. The form that used to function as a present imperfective is often used for both future and habitual functions (Haspelmath 1998:35). Yet, there are some verbs for which the new subjunctive/future forms retain their old present indicative meanings, namely with the predicates “know” (in Modern Welsh, Lezgian, Cairene Arabic, and Modern Eastern Armenian), “be” (in Modern Welsh, Modern Indic, and Modern Eastern Armenian), “can” (in Modern Welsh and Cairene Arabic), and a few other verbs (Haspelmath 1998). Again, this is very similar to what is found with the YIQTOL form which combines with a few verbs (particularly “can” and “know”) in the present but is mostly used to encode future and past habitual situations. Whether or not YIQTOL developed from a present tense form (and so Haspelmath’s article could apply directly to YIQTOL), the broader point is that some future and subjunctive forms are used in present time in restricted cases with a few irregular verbs (just as yiqtol can be used with *to be able* in present time as shown in section 3.4.4).

Given the above cross-linguistic comparisons, I conclude that YIQTOL should be categorized as an irrealis form that encodes unactualized situations according to the definition given in 2.5.2.1. Its range of meaning patterns remarkably well with other irrealis forms. YIQTOL fits nicely within the category of irrealis verbal mood, and its various irrealis

functions argue strongly against categorizing it as a modal or an imperfective form (the most common labels).

3.4.7 *Comparison with other Theories*

3.4.7.1 Irrealis Verbal Mood vs. Imperfective Aspect

Among the proponents of categorizing YIQTOL as an imperfective form, John Cook stands out as an example of a linguist who uses grammaticalization and typology to support his theory. Cook and I share the same definition for irrealis verbal mood as encoding “events that are not necessarily real or actualized, or are nonassertions” and for imperfective aspect as “leaving the endpoints of the situation beyond its purview” (Cook 2012:54, 27). Thus, our disagreements are not just terminological. Here, I deal with some of his major arguments for labeling YIQTOL as an imperfective form from his recent book *Time and the Biblical Hebrew Verb*.

First, Cook gives a typological argument by comparing the system in BH to others: “The imperfective identity of *yiqtol* follows almost inevitably from the case made for perfective *qatal* based on this implicational typological generalization: perfective grams [or forms] develop only in languages that already possess an imperfective gram, with which the perfective stands in opposition (Bybee, Perkins, and Pagluica 1994: 91)” (Cook 2012:217–218). However, the typological generalization which he appeals to is far from absolute. Dahl cites a number of languages which have perfective forms but no imperfective forms, including Hindu/Urdu, Modern Greek, Seneca, Akan, Wolof, Mandarin Chinese, and Hungarian (Dahl 1985:168, 169, 173, 179–181). Hence, even if QATAL is perfective, there is no typological necessity for BH to have an imperfective form.⁶⁸ Biblical Hebrew may have a perfective form without having an imperfective form

⁶⁸ This is not to say that speakers of these languages cannot utter sentences that have an imperfective interpretation, only that imperfective aspect is not a marked part of the verbal system. In Cook’s more recent work, he argues that a basic aspectual opposition is necessary for understanding either end of the spectrum: “tense-aspect-mood systems are comprised of oppositions, which give the labels of these broader domains

just like the abovementioned languages. Moreover, Bybee, Perkins, and Pagliuca actually do not say that a perfective form only develops in languages with an imperfective form. Rather, they state the following (emphasis mine): “In §3.11 we pointed out that the perfective and simple past are very similar to one another, and we *hypothesized* that a developing anterior [i.e. perfect] becomes one or the other depending on the presence or absence of a past imperfective in the language” (Bybee, Perkins & Pagliuca 1994:91). It is clear that Bybee, Perkins, and Pagliuca are only making a hypothesis, and this hypothesis has several exceptions according to Dahl’s classification of the above languages.⁶⁹

Second, after discussing YIQTOL’s diachronic path (which is “not as transparent” as QATAL’s, Cook 2012:219), Cook explains YIQTOL’s modal and perfective meanings by appealing to Haspelmath’s article that was discussed above (Cook 2012:221):

These miscellaneous functions, such as future and habitual, regularly appear as ‘peripheral’ meanings of imperfective grams (see Bybee, Perkins, and Pagliuca 1994: 158). But Haspelmath’s crucial insight is that, through competition with other grams, these peripheral and seemingly miscellaneous meanings may come to be the more dominant meanings alongside the diminished or lost prototypical imperfective meanings. A shift of this sort would neatly explain the distribution of meanings associated with the BH *yiqtol*: because of competition from the participial progressive gram, imperfective *yiqtol* only infrequently expresses past and present imperfective as ‘residual’ meanings of its earlier prototypical functions (Haspelmath 1998: 36), while (general) future and subjunctive meanings are becoming primary functions of the form. This reconstruction removes the objection that *yiqtol* cannot be an imperfective gram because it expresses general (perfective) future, in that such grams are ‘anomalous’ in part because of the tendency of future and subjunctive expressions to be perfective (Haspelmath 1998: 55; for a similar case in Tigre, see Bybee, Perkins, and Pagliuca 1994:146-147).

There are two different issues that arise from the above passage. First is the question of meaning: can the functions of YIQTOL be related back to an imperfective meaning?

their significance” (2014:92). However, this does not mean that oppositions must always be incorporated morphologically into the verbal system, as the languages cited show.

⁶⁹ Moreover, Joan Bybee herself said the following about her hypothesis in personal communication: “We did not propose a typological generalization because there was very little data, but rather a hypothesis about change, which remains to be tested...I think that it would be possible for an anterior to take on perfective uses on its way to simple past, without the presence of an imperfective in the language.” Her final statement thus shows that YIQTOL need not be imperfective on the basis of QATAL’s perfective value.

Second is the question of label: given the form's invariable meaning(s), what should it be labelled?

First with regard to meaning, the title of Haspelmath's 1998 article is *The Semantic Development of Old Presents: New Futures and Subjunctives Without Grammaticalization*, and in accord with the title, Haspelmath's main endeavor is to show how present tense forms change to future or subjunctive forms: "In this paper I will discuss a pattern of change found in a variety of languages whereby present indicative forms of verbs develop into futures or subjunctives" (Haspelmath 1998:29). Haspelmath's article supports a subjunctive or future meaning for YIQTOL if BH went through the same change as the languages he cites. Nowhere in the article does Haspelmath suggest that an "old present" should still be given the semantic meaning of present or imperfective, but his entire point is that these forms have now *changed* meaning to future tense or subjunctive verbal mood. Just because a form used to be a present or imperfective form does not mean that it still has that meaning at any given point (in accordance with the etymological fallacy presented in 2.1.4), especially when those functions that relate to that particular meaning have fallen out entirely or almost entirely. Moreover, the objection that YIQTOL is regularly used to express a future *perfective* situation is not helped by appealing to Haspelmath's article. Haspelmath discusses German which has a present tense (or a non-past) unmarked for aspect that is often used in future time when it combines with telic predicates (Haspelmath 1998:49–50). The fact that YIQTOL regularly does express perfective aspect in the future but is still used to express imperfective aspect (such as in modal constructions) suggests that its aspectual value is similar to German's present tense, i.e. that it is unmarked for aspect, not that its invariable meaning is imperfective aspect.

Importantly, there is nothing about imperfective aspect in itself that would make it incompatible with an irrealis form when the proposition has not yet been actualized (such as in modal sentences, conditions, future, questions, etc.) because the invariable meaning of non-assertion is still present regardless of the aspect. The unambiguous examples of present imperfectives Cook cites are all questions (Cook 2012:218), which is a function sometimes associated with irrealis morphemes (Plungian 2005:138). The presence of other

forms within questions in BH demonstrates that questions are not exclusively marked as irrealis, but this does not mean they could not be optionally marked as irrealis without a significant change in meaning. In other words, a present imperfective interpretation in interrogative sentential mood may stem from the participle (which encodes imperfective aspect) or YIQTOL (which is aspectually neutral but encodes a non-asserted situation like a question). Indeed, this seems to be the case in BH, since either form can be used when an ongoing situation in present time is questioned (Judges 18:3f for the participle; Gen 16:8c for YIQTOL).

Cook gives twelve examples of past imperfective uses that seem to argue against YIQTOL's irrealis value. His references are Gen 6:4; Exod 8:20; 19:19; Judg 9:38; 1 Sam 1:10; 2 Sam 15:37; 23:10; 1 Kgs 6:8; 20:33; Isa 1:21; Hos 2:1, but he admits that distinguishing between past imperfective and past habitual is difficult and the last two might be the latter (Cook 2012:218). Although these are difficult passages, I consider the best examples to be 1 Sam 1:10; 2 Sam 15:37; 23:10; 1 Kgs 20:33. De Haan shows that some other languages, though few in number, may have an irrealis morpheme used for a past-imperfective as well (de Haan 2012:119). However, this usage is not easily accounted for by an irrealis invariable meaning. I consider this rare function, if the interpretation of these passages is correct, to be residual functions of the older imperfective form, as Cook suggests. With that being said, it is pedagogically unhelpful to say that the invariable meaning of a form is imperfective on the basis of one or two functions that are poorly attested and debated.

Second is the issue of how to label YIQTOL. It should be noted that Cook and I are quite close on the set of functions that YIQTOL actually expresses. He stated above that it may function as a perfective future or with subjunctive meanings and even that the imperfective functions are dying out. This shows that our actual taxonomy of functions is quite close. While we largely agree on how the form functions, we have chosen different labels to represent these functions.

In keeping with my semantics approach (discussed in section 2.1.1), the label should coincide with the invariable meaning of the form. From my limited corpus, it seems

clear that YIQTOL's invariable meaning in my three books is irrealis verbal mood. When considering the wider corpus of the entire Hebrew Bible, this leaves us with two options: it is either an aspectually neutral irrealis form (as my data suggests) or it is polysemous for an aspectually neutral irrealis form and imperfective aspect. However, labelling the form "imperfective aspect" alone is not viable if the label describes the invariable meaning. This follows from an imperfective meaning being unable to account for its modal uses, nor can it account for its predominant use as a future perfective (or the many other functions like commands, purpose clauses, conditions, etc. that stem from YIQTOL's unactualized meaning). Whether or not YIQTOL is labelled an imperfective form, it must at least be labelled an irrealis form if the invariable meaning is to coincide with the label.

3.4.7.2 Irrealis Verbal Mood vs. "Modality"

The biggest issue with labeling the YIQTOL form a "modal" form is terminology. The word "modality" is used in so many different ways by Hebraists that it is quite difficult at times to know exactly what grammarians are claiming and if they differ or are just talking past each other. Cook's criticism of Joosten making the category of modal "endlessly elastic" is well-put (Cook 2012:219). Joosten's categorization of YIQTOL as a modal form is difficult to evaluate for this very reason. If by "modal" he means something similar to what is found cross-linguistically in "irrealis mood forms," then the issue is merely terminological, but again, it is not entirely clear what he actually means in his employment of the term "modal." Because he categorizes future, habitual, purpose clauses, and conditions as modal (Joosten 2012:265–287), he most likely does mean something like irrealis mood. Yet terminology aside, Joosten fails to explain how his definition of modality accounts for the various uses that YIQTOL has.

On the other hand, Hatav tries to explain YIQTOL's uses in terms of possibility and necessity, but in attempting to do so, she actually does make the category of modality far more elastic than it is normally made. For examples, as a sentence indicating necessity, she gives the example *A bachelor is an unmarried man* (Hatav 1997:117). Although this sentence is necessarily true, it is not so because it is modal. In English, modality is indicated

by the modal auxiliaries, and there are none here. Rather, this sentence is necessarily true because the definition of “bachelor” is an unmarried man, i.e. it is a logical entailment, not a modal statement. Moreover, she categorizes rhetorical questions as modal as well, and it is unclear why she does so and how she relates this to the traditional view of modality dealing with possibility and necessity (Hatav 1997:141, 147).

Studies on the BHVS tend to make the category of modality more or less equivalent to irrealis verbal mood. While at times this may seem like simply a question of which term to employ, this is actually an important concern within the broader field of linguistics, since “modality” ordinarily does not have the range of meaning that is assigned to it by these authors.⁷⁰ Moreover, when the categories of possibility and necessity are employed to account for YIQTOL’s range of meaning, there is a tendency to view almost any kind of sentence in those terms (which might be possible, but is rather unhelpful). Based on cross-linguistic comparisons, YIQTOL should be categorized as an irrealis verbal mood form, not a modal.

3.4.8 *Syntax and the YIQTOL Form*

In my brief discussion on syntax in section 3.3, I said that the clause-initial position may trigger a difference in verbal mood under Holmstedt’s view. One way to explain WEQATAL is that the verbal mood may change from realis to irrealis when QATAL shifts from SV to VS word order. Assuming this position is correct, it may be argued that YIQTOL cannot be an irrealis form because it is ordinarily not found in initial position like WEQATAL (for the data counts, see Holmstedt’s articles listed above). However, even under this view, a form being fronted to indicate a shift in verbal mood does not preclude the possibility that a different form encodes the same verbal mood in a different position. WEQATAL may take its value from its syntactic position, but YIQTOL may have a similar value that is inherent to the form. As has been stated and as the data shows, there is a considerable amount of overlap in meaning and usage between WEQATAL and YIQTOL, and sometimes

⁷⁰ Admittedly, “modality” is used in different ways even in general linguistics. However, semanticists normally use “modality” in a stricter way as dealing with possibility and necessity.

(particularly with telic predicates), the two are semantically indistinguishable. This is seen in the following example:

(46) Micah 1:6b-c

וְהִגַּדְתִּי לְגִי אֲבֹנֶיהָ וִיסְדֶיהָ אֶגְלֶה
 wəhiggartî laggay ʾăḇāneýhā wîsōdeýhā ʾăḡalle^h
 “And I will throw down her stones into a valley, and I will uncover her foundations.”

In example (46), both the initial WEQATAL and the latter YIQTOL have a future perfective interpretation. However, WEQATAL is found with VS word order, while YIQTOL is found with SV word order. Examples like this are common in the Hebrew Bible, and although there are times when there is a slight difference in meaning between the two, many times both are future perfective and have the same semantic values.

3.5 WAYYIQTOL

Because most studies on the BHVS focus on narrative, WAYYIQTOL is often given a considerable amount of attention. Anyone familiar with the Hebrew Bible knows that WAYYIQTOL is easily the most predominant form in narrative. But in my corpus of prophecy, there are only 38 occurrences of the form, and 29 of them occur in Amos which has embedded narrative. Diachronically, it is best to view this form as distinct from the YIQTOL form despite the morphological similarities (Waltke & O’Connor 1990:544–547; Cook 2012:256–258; Joosten 2012:162–163). Semantically, the two are completely distinct. While YIQTOL is an irrealis form, WAYYIQTOL is generally considered to be a past tense form (though some consider it to be sequential). The functions of WAYYIQTOL are found in the following charts:

Table 9: Relationship between Time of Writing and TSit for WAYYIQTOL

Time Reference		
Past	Present	Future
30		3

Table 10: Tense and Aspect Functions of WAYYIQTOL

Aspect	Tense		
	Past	Present	Future
Perfective	31		
Imperfective			
Habitual	2		
Perfect			

As can be seen by the chart, WAYYIQTOL has a very limited range of functions unlike the QATAL and YIQTOL forms.

3.5.1 Time Reference

It should be remembered that the time reference of

Table 10 is given relative to the TA. In my definition of tense in chapter two, I said that tense is a relationship between the TT and the Temporal Anchor (TA), which may be equivalent to the TU or may be some other time in the context. This is crucial to understanding the time reference of WAYYIQTOL and how it can be used for a situation that is in the future relative to the time of writing. If a form encodes tense, then it can only be used for one time in the chart that shows a relationship between the TA and TT.⁷¹ However, even if a form encodes tense, the TT need not be related to the time of writing. In section 2.6.1, I showed that the TU can shift in embedded discourses, and when this occurs,

⁷¹ Besides something like a non-past tense, but this is irrelevant for the discussion and still cannot explain a past and a future interpretation.

the old TU becomes irrelevant for tense relationships. In other words, the time of writing often becomes irrelevant in embedded discourses because the TU (and TA) has changed to reflect the perspective of the speaker. This is particularly relevant in cases of Direct Discourse (DD) and Free Direct Discourse (FDD) where the TA necessarily changes to the TU of the new speaker. In FDD, the TU may change without any indication that it is changing, so the TA might become the TU of some character in the story (without a verb of speaking or thinking) from whose perspective the tenses are now related. This is represented by the following diagram (I have labelled the Time of Writing *TWrit*):

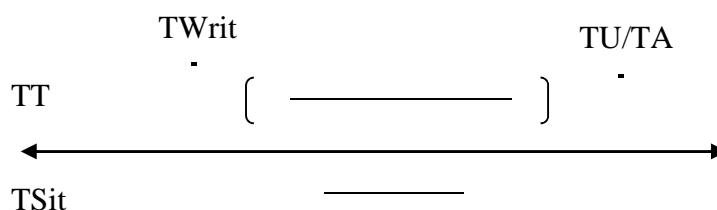


Figure 11: Perspective shift in Free Direct Discourse

The diagram shows how perspective shift in discourse may cause a future situation (in relation to the time of writing) to be represented by a past tense form. Before applying the above explanation to the WAYYIQTOL form, I show the undisputed use of past time reference in example (47):

(47) Past—Amos 2:9b

וְאֲשָׁמִיד פְּרִיֹו מִמַּעַל וְשָׂרָשָׁיו מִתַּחַת

wāʾašmîd piryô mimmaʿal wəšorāšāyw mittāḥaṭ

“I destroyed his fruit from above and his roots from beneath.”

This clause is reporting what God previously did to the Amorites when he is trying to show his past faithfulness to his people. It is in past time reference relative to the TA, as should be expected for a past tense form.

The discrepancy between the counts for future time reference in Tables 10 and 11 is due to a change in the TA. The three situations labelled future in Table 10 are future relative to the time of writing, but they are past to some other time in the context (as shown in

Figure 11 above). In order to explain this phenomenon, I am suggesting that WAYYIQTOL may be used in Free Direct Discourse, and by this means, it may express a past situation from a future perspective that is still in the future relative to the time of writing. This is essentially what Hatav concludes as well for those instances where a WAYYIQTOL is used with future time reference, and she says that this is unique to the prophets who can view a situation from the future when a vision is given to them by God of events that will happen at some later time (Hatav 2011). While her reasoning may be true, it may also be simply a rhetorical effect used by the prophets to present situations that have not yet occurred as more real in order to make them more persuasive (the same phenomenon was seen for QATAL in 3.2.1). In my corpus, there is only one potential example of this (that has a WAYYIQTOL form):

(48) Micah 2:13

עָלָה הַפֶּרֶץ לִפְנֵיהֶם פָּרְצוּ וַיַּעֲבְרוּ שַׁעַר וַיֵּצְאוּ בּוֹ וַיַּעֲבֹר מֶלֶכָם לִפְנֵיהֶם וַיְהוּה בְּרֹאשָׁם
 ʿālā^h happōrēs lipnêhem pāršû wayyaʿābōrû šāʿar wayyēšʾû bô wayyaʿābōr malkām
 lipnêhem wyhwh(waʿdōnāy) bārōʾšām
 “The breaker has gone up before them. They broke through, **crossed over** the gate, and **went out**. Their king **crossed** before them, the Lord at their head.”

Although Micah 2:13 is a very difficult verse that is highly debated, it is the only possible occurrence of a future situation referred to by WAYYIQTOL in my corpus,⁷² so I present it here only to explain how this would work under the controversial assumption that this situation does actually take place in the future rather than the past.⁷³ Micah’s actual time of speaking/writing the prophecy would be prior to the situation occurring, but the TA, which tense is actually related to, would be from a future perspective posterior to the future situation. It is from the perspective of someone watching the events take place. From this TA, the most natural way to refer to these past situations would be to use the

⁷² Clearer examples can be found in Joel 2:23 and Jeremiah 8:16.

⁷³ Three of the major technical commentaries also agree that this situation being referred to is in the future (Andersen & Freedman 2006:342; Waltke 2009:136–138; Hillers 1984:39). English translations are also divided on the issue and translate it in various ways. The ESV translates these verbs in the simple present tense, the NIV in the future, and the KJV with the present perfect.

WAYYIQTOL form, exactly what is in the text. Only with a recognition of how tenses work in embedded discourses can this be adequately explained (again assuming this is actually a future situation).⁷⁴

It is also reasonable to suppose that the TA could shift to the past, so the tense would be a past in the past. In accord with this, there is a debated “pluperfect” use that is often discussed in the standard grammars (Waltke & O’Connor 1990:552–553; Joüon & Muraoka 2011:362). This function is not found in my corpus, but the above explanation for tenses in embedded discourses can also account for this use. This, however, should be distinguished from the past perfect use of QATAL demonstrated above. In English, both a past in the past and a past perfect look the same, e.g. *had eaten*, as Bohnemeyer shows (Bohnemeyer 2014). In BH, the case is different as clear examples of both QATAL as a past perfect (Amos 7:2b) and WAYYIQTOL as a past in the past (1 Kgs 13:12) can be found.

Like most students of Hebrew, I consider WAYYIQTOL to be a past tense form, but it may have a TT that is future relative to the time of writing if the TA has shifted to the distant future (which is possible in the cases of Direct Discourse, Free Direct Discourse, Indirect Discourse, and Free Indirect Discourse).⁷⁵ And it may also have a TA that is shifted to the past to create a past in the past interpretation.

3.5.2 *WAYYIQTOL and Aspect*

Because of the scarcity of WAYYIQTOLS in my corpus, it is difficult to determine whether aspectual coercion takes place or not with states and activities. However, Hatav shows that WAYYIQTOL is often interpreted as ingressive or complexive when combined with a stative predicate, so I adopt her position and give further examples (Hatav 1997:59–

⁷⁴ Though difficult, this seems to be an example of FDD where the perspective shifts to the future without any overt marking. However, there are many issues with the text that make a firm conclusion difficult to come to.

⁷⁵ By relating everything to the time of writing, I am not suggesting that the time of writing always equals the TU. In fact, the TU is equivalent to the time of the reported speech act, so in FDD and DD, it is actually the TU that changes (see 2.6.1). However, I make the reference point static in Table 9 (the time of writing) in order to make the shift in the temporal reference point more explicit.

62).⁷⁶ Joosten also cites numerous (31) stative verbs that are often interpreted ingressively when combined with WAYYIQTOL (Joosten 2012:84–85). Cook affirms the same function as well for WAYYIQTOL, though he says that it doesn’t always function in this way (Cook 2012:290). The fact that so many different verbs can be used ingressively with WAYYIQTOL suggests that entrance into the state is not merely a sense of each individual lexical item, but it stems from the interaction between the aspect of WAYYIQTOL and the aktionsart of the predicate according to aspectual coercion. Although there is a fair amount of uniformity about how WAYYIQTOL may interact with stative predicates, I would add that it may also function in a similar way with activities because they are also atelic.

In the tense and aspect chart above, WAYYIQTOL was always used for perfective aspect and not imperfective. This is quite similar to QATAL, which only has perfective or perfect aspect and is normally describing a past situation. In the section on QATAL and aspect (3.2.3), I demonstrated that when perfective verbs combine with telic predicates, the TS is always reached. This is also the case for WAYYIQTOL as shown in the example below:

(49) Micah 6:4c

וְאַשְׁלַח לְפָנֶיךָ אֶת־מֹשֶׁה אֶהְרֹן וּמִרְיָם

wāʿešlah ləpāneýkā ʔet-mōše^h ʔahārōn ûmiryām
 “I **sent** to you Moses, Aaron, and Miriam.”

In example (49), Moses, Aaron, and Miriam are said to reach the TS, i.e. they actually arrived in the presence of the people. This is what we would expect to find for a perfective verb, and it is what we found for QATAL. If WAYYIQTOL underwent aspectual coercion, we should expect that states and activities would be interpreted as either ingressive or complexive. Hatav gives many examples of this, but there are only a few complexive examples in my corpus, and there are no clear examples of an ingressive interpretation. I present the complexive example below, but I again refer the reader to Joosten and Hatav who have dealt with more stative predicates with WAYYIQTOL.

⁷⁶ She does not use the terms “ingressive” or “complexive,” but “inchoative” and “distributive” respectively.

(50) Amos 2:10—Complexive

וְאֵלֹהִים אֶתְכֶם בַּמִּדְבָּר אַרְבָּעִים שָׁנָה

wā'ôlēk ʔetkē bammidbār ʔarbāʿîm šānā^h
 “I led you in the wilderness for forty years.”

‘Led’ is an atelic, activity verb, but the adverbial ‘for forty years’ delimits the situation, marking its beginning and endpoint. God led Israel in the wilderness for a set time even though ‘led’ does not ordinarily have a lexically specified endpoint.

The few examples of WAYYIQTOL found in the corpus all point to it as having perfective aspect. One last note should be made about the aspect of WAYYIQTOL. Hatav has proposed that the form does not encode tense or perfective aspect but sequentiality (Hatav 1997). I deal with this claim in more detail in the next chapter on discourse, but as stated above under the WEQATAL section, the semantics of perfective aspect naturally leads to a sequential interpretation when one perfective follows another in the discourse (Comrie 1976:5). So while perfective aspect may account for a form’s high propensity to receive a sequential interpretation, it is difficult to see how a sequential form could account for non-sequential situations, and Hatav finds such non-sequential examples in her own study (Hatav 1997:63).

If my categorization of WAYYIQTOL as a perfective-past form is correct, then it shows a significant amount of overlap with the QATAL form, which is polysemous for perfective and perfect aspect. A perfective QATAL with past time reference (the ordinary interpretation for perfective QATAL) would actually be semantically equivalent to WAYYIQTOL. There are several examples of this in my corpus.

(51) Amos 4:10

שְׁלַחְתִּי בְכֶם דֶּבֶר בְּדֶרֶךְ מִצְרַיִם הָרָגְתִּי בַחֲרֹב בַּחֲוִירֵיכֶם עִם שְׂבִי סוּסֵיכֶם וְאַעֲלֶה בָאֵשׁ
 מַחֲנֵיכֶם וּבְאַפְּכֶם וְלֹא־שָׁבְתֶם עָדִי

šillaḥtî bākem déber baḏerek mišrāyim hārāgṭî baḥéreb baḥúreḱem ʿîm šəbî sūsēḱem
 wāʾaʿāle^h bəʾōš maḥănēḱem ûbəʾappəḱem wəlōʾ-šəḇtem ʿāday

“I sent among you a plague in the manner of Egypt, and I killed your young men with the sword along with your captured horses. I caused the stench of your camp to go up into your nostrils, yet you did not return to me.

All of the situations in Amos 4:10 are perfective in past time because both the end and beginning of the situations are specified as occurring within some TT which is prior to the TA. The first, second, and fourth verbs are QATAL, and the third is WAYYIQTOL. The fourth verb is negated, so it must use QATAL (since WAYYIQTOL cannot be negated), but there seems to be no semantic reason for using QATAL rather than WAYYIQTOL in the first two clauses. Either a QATAL or a WAYYIQTOL form can be used for perfective situations with past time reference.⁷⁷

Although my study is not chiefly concerned with diachronic development, I mention here a development that supports this semantic description of the system as a whole. We have seen that there are two forms that have a considerable amount of overlap with two other forms: YIQTOL and WEQATAL can both be used for irrealis perfective situations and QATAL and WAYYIQTOL can both be used for perfective situations in past time. Moreover, WAYYIQTOL and WEQATAL are syntactically constrained: they can only occur clause-initially, cannot be negated, and cannot be used in subordinate clauses (unless they are coordinate to another subordinate clause). Not surprisingly given these constraints and redundancies, WEQATAL and WAYYIQTOL drop out of the system in Rabbinic Hebrew.

3.5.2.1 WAYYIQTOL and Habituality

Thus far, the system presented has accounted for all of the functions of WAYYIQTOL except for its use in habitual contexts. As shown above, several different forms can be used for habituals given the right context. This is to be expected, since extending the TT and making a situation a characteristic habit can easily be done with adverbials. We have already seen that perfective QATAL can be interpreted habitually, and there is nothing inherent in perfective aspect that makes it incompatible with a habitual interpretation. For

⁷⁷ I have stated several times that this is to be expected in any system, but further evidence can be seen when comparing this to a similar situation in German. It has a preterite form that is ordinarily found in narrative contexts, but its perfect form seems to be polysemous for perfect aspect and past tense (or perfective aspect); hence a story retold with past time reference can use either the preterite form or the polysemous perfect form, but there is a greater propensity to use the preterite form, since it is most commonly associated with narrative and temporal succession (von Stutterheim, Carroll & Klein 2003:121).

a form that encodes past time reference, we would expect the TT to always be prior to the TA, so we should expect habits depicted by WAYYIQTOL to be in the past as well. In my corpus, several of the potential habituals are uncertain, but I present here one example which can be identified as habitual:

(52) Micah 6:16b

וַיִּשְׁתַּמְּרֵם חֻקֹּת עֹמְרִי וְכָל מַעֲשֵׂה בֵּית־אָחָב וַתֵּלְכוּ בְּמַעֲצוֹתָם

wəyištammēr ḥuqqôt ʿomrî wəkol maʿăšē^h bêt-ʾahʾāb wattēlkû bəmōʿăṣôtām

“You would keep the statutes of Omri and all the deeds of the house of Ahab; you **walked** in their counsels.”

In this example, the YIQTOL before the WAYYIQTOL form is used in one of its typical functions as a past habitual and so describes a characteristic of the people prior to the TA. The following WAYYIQTOL is a further explanation of the previous clause and is set in past time because it is a past tense form. Its habitual interpretation is due to the context and the atelic predicate (see the explanation above under section 3.2.4.1). Although this function of WAYYIQTOL is debated, Joosten also gives several examples of WAYYIQTOL used habitually, including 1 Sam 8:3 and Ex 16:21 (Joosten 2012:174).

3.5.3 *Comparison with other Theories*

Compared to the variety of opinions on the other major forms treated above, there is a fair amount of uniformity among scholars about the basic value of WAYYIQTOL. Cook and Joosten both regard it as a past tense form that often, but not always, is found with a sequential interpretation to the previous verb (Cook 2012:256; Joosten 2012:163). On the other hand, Hatav calls the form sequential and not past, even though she admits that it is always used with past time reference and her data shows exceptions to the sequential interpretation (Hatav 1997:57, 84). While Joosten and Cook affirm that WAYYIQTOL can be used ingressively with states, only Hatav explains how this works (1997:48-49), though she connects the reinterpretation with sequentiality rather than perfective aspect.

My theory differs from Joosten's and Cook's in regard to aspect and from Hataav's with regard to sequentiality. The fact that WAYYIQTOL is so often sequential suggests something about its aspect, since perfective forms that follow one another are often interpreted sequentially (Comrie 1976:5). Moreover, the fact that states are often reinterpreted to specify the beginning of the state (for the ingressive interpretation; Joosten 2012:84-85), another common characteristic of perfective forms (Comrie 1976:19-20), also suggests that WAYYIQTOL is not only past but perfective as well. So my theory is close to Hataav's, Joosten's, and Cook's except that the perfective value of WAYYIQTOL is able to explain how and why sequentiality and aspectual reinterpretation occur.

3.6 Conclusion

QATAL specifies aspect only, and it is polysemous for either a perfective or perfect meaning. It can be used in any time sphere, but perfective is most often in the past and perfect is most often in the present, which means that TSit usually precedes the TA with QATAL. The perfective sense is found in present and past habituals, while the perfect sense is found with present and past habituals and generics. I label it as polysemous for perfect and perfective aspect in accordance with its two possible invariable meanings.

WEQATAL specifies irrealis verbal mood and perfective aspect. It is always interpreted as a perfective-future when it is not habitual or modal. It is unmarked for tense, so its habitual functions may be in the past, present, or future. It also has an ingressive or complexive reading when combined with atelic predicates, and it may indicate possibility or necessity when functioning as a modal. Thus, I label it an irrealis perfective form.

YIQTOL specifies irrealis verbal mood only. It has modal functions that are not specified for either the type or strength of modality. It can be used in any time sphere, but it is most commonly found in the future. It can be used with any aspect as well as with past, present, or future habituals or generics. It is not specified for aspect, so it derives its aspectual value from the *aktionsart* of the predicate and is ambiguous for a complexive (and so perfective) and imperfective reading with atelic predicates. It is also used with typical irrealis functions, such as in conditionals, for hypothetical situations, and in subordinate

clauses of purpose and consequence. In accordance with these functions, I label it an irrealis form.

WAYYIQTOL specifies past tense and perfective aspect. It always specifies that the TT precedes the TA. It has perfective aspect and has an ingressive or complexive meaning when combined with atelic predicates. On occasion, it may also be used habitually, especially when there is a sequential relationship between two habitual situations. Thus, I have not labelled it merely a past tense form but a past-perfective form.

CHAPTER 4: THE INTERACTION OF DISCOURSE WITH THE SEMANTICS OF THE BHVS

In this chapter, I discuss how the verb forms temporally relate to one another in a discourse. Linguists have recognized that the interpretation of a grammatical morpheme must not only take into account the sentence in which it is found, but also the sentences around it, i.e. the full discourse. The discourse is particularly relevant for the semantics of the BHVS because some previous scholars have claimed that certain temporal relationships are a part of the invariable meaning of some forms. Most notably, Hatav has said that WAYYIQTOL and WEQATAL always specify a sequential temporal relationship, while the other forms are not sequential (1997:56, 83). On the other hand, Longacre and Bowling do not find that temporal relationships between situations are part of the invariable meanings of the forms, but they do assert that the functions of the forms are fundamentally dependent upon the context (as opposed to the functions being fundamentally dependent upon the invariable meaning(s)—see 4.5.1 below for a discussion). I argue below that temporal relationships between clauses are not part of the invariable meanings of the forms (contra Hatav) and that the functions are fundamentally dependent upon the invariable meaning rather than the discourse (contra Longacre and Bowling). Along with these assertions, I also show how perspective shift in discourse affects the temporal interpretation of the forms. I draw supporting evidence for these claims by analyzing the following passages: Zephaniah 3:14-17, Micah 2:1-2, Amos 2:9-10, and Micah 7:16-17.

Each of the units analyzed have been picked for a specific purpose. In Zephaniah 3:14-17, I show how the imperative and the QATAL form are used in Free Direct Discourse, and I show the formal distinction between Direct Discourse and Free Direct Discourse. My analysis of Micah 2:1-2 reveals that habitual clauses may also be sequential and that WEQATAL need not be sequential. The primary issue dealt with in Amos 2:9-10 is whether

WAYYIQTOL is necessarily sequential, and just as with WEQATAL, it is found that WAYYIQTOL does not have a necessary Narration relation. Finally, Micah 7:16-17 shows that YIQTOL, though not ordinarily sequential, may also have this relationship. Thus, my analysis of these passages shows that temporal relationships are not part of the invariable meanings of the forms.

My discussion of the abovementioned passages uses the theory of discourse set out in chapter two. In section 2.6.1, I explained that the discourse devices of Indirect Discourse (ID), Free Indirect Discourse (FID), Direct Discourse (DD), and Free Direct Discourse (FDD) were important for establishing the TA in the text. With FID, there is no overt marking that indicates the story is in indirect discourse, and the TA may shift to the perspective of a subject or protagonist in the story. With DD on the other hand, the TA is by default the TU of the speaker in the story, and there is overt marking to indicate who is speaking (and thus to whose perspective the TA has changed). Finally with FDD, the TA changes to the TU of the new speaker, but there is no overt marker to indicate who the speaker is or to what time period the TA has shifted.

In section 2.6.2, I laid out the four basic temporal relationships found between clauses: Narration (temporal sequence), Elaboration (temporal inclusion), Explanation (temporal precedence), and background (normally temporal inclusion as well). When determining the discourse relations between clauses, it must be remembered that the temporal relationship between two clauses with different forms can be determined purely by the semantics of verbal inflection. For example, in the clauses *Dylan is playing Frisbee, and he will stop soon* the second clause is in temporal succession (a Narration relation) with the first clause because the first clause is in the present and the second is in the future. This says little about constraints that might be placed on the future form for discourse relations, since the Narration relation comes from its differing tense value with the present. What is often significant when determining discourse relations is how two clauses with identical TAM values may be related because, in these instances, the relationship between

the two TTs is not grammatically specified.⁷⁸ In other words, when there are two adjacent forms with the same TAM value, several different interclausal relationships can hold, so in such a case, the forms themselves do not determine the relationship between the two TTs.

As for how the discourse relationships between clauses are actually determined, this is a combination of context and world knowledge (Lascarides & Asher 1993:440). Essentially, this means investigating what the real world tells us about the order of situations and noting any contradictions in the linguistic context that might make the ordinary relationships different. For example, Asher and Lascarides analyze the two sentences *Max fell. John pushed him* as ordinarily having an Explanation relation between them; John's pushing precedes and causes Max's falling because world knowledge tells us that, without any other information, that is the ordinary order of situations (Lascarides & Asher 1993:437, 440). This, however, is defeasible. There are many examples in the real world where a *pushing* might come after a *falling* (e.g. *Max fell on his stomach. John pushed him over onto his back*), and a *falling* may even cause a *pushing* (Lascarides & Asher 1993:445). But while both temporal relationships are possible for these situations, the Explanation relation is *preferred* if nothing else in the linguistic context indicates otherwise (Lascarides & Asher 1993:445). The implication of this discussion is that the explanations for the relationships discussed below will be based on world knowledge. For example, an explanation for interpreting the pushing as preceding the falling might be because pushing ordinarily precedes falling in the real world.⁷⁹

⁷⁸ Two clauses with identical TAM values may, however, employ different forms for those values. For example, WAYYIQTOL and QATAL are sometimes both past and perfective as shown in 3.5.2. Thus, the discourse relation between a WAYYIQTOL and a QATAL form might also be opaque.

⁷⁹ Some might find my appeal to world knowledge a fault in my theory, but it should be recognized that this is inevitable for any theory that takes the discourse into account. There is no other way to determine how two situations are related besides using the linguistic and extra-linguistic context, i.e. world knowledge.

4.1 Zephaniah 3:14-17

רְנִי בַת־צִיּוֹן¹⁴
 הָרִיעִי יִשְׂרָאֵל
 שִׂמְחִי
 וְעִלְזִי בְּכָל־לֵב בַּת יְרוּשָׁלַם:
 הִסִּיר יְהוָה מִשְׁפָּטֶיךָ¹⁵
 פָּנָה אֵיבֶךָ
 מִלֶּךְ יִשְׂרָאֵל יְהוָה בְּקִרְבְּךָ
 לֹא־תִירָאִי רַע עוֹד:
 בֵּינוֹם הֵהוּא יֹאמַר לִירוּשָׁלַם¹⁶
 אֶל־תִּירָאִי צִיּוֹן
 אֶל־יִרְפוּ יָדֶיךָ:
 יְהוָה אֱלֹהֶיךָ בְּקִרְבְּךָ¹⁷
 גְּבוֹר יוֹשִׁיעַ
 יֵשִׁישׁ עִלְיָךְ בְּשִׂמְחָה
 יַחְרִישׁ בְּאַהֲבָתוֹ
 יִגִּיל עִלְיָךְ בְּרָנָה:

¹⁴ ronnî baṭ-šiyyôn

¹⁴ Rejoice, Daughter Zion! (Imperative)

hārî'û yiśrā'ēl

Shout for joy, Israel! (Imperative)

śimḥî

Be glad, (Imperative)

wə'olzî bəkol-lēb baṭ yərûšālāim

And exult with all your heart, Daughter Jerusalem! (Imperative)

¹⁵ hēsîr yhw̄h mišpāṭáyik̄

¹⁵ The Lord has taken away your judgments. (QATAL)

pinnā^h ʔōyḇēk̄

He has cleared away your enemies. (QATAL)

mélek̄ yiśrāʔēl yhw̄h bəqirbēk̄

The King of Israel, the Lord, is in your midst. (Null copula)

lōʔ-tîrʔî rāʕ ʕôḏ

You will never again fear disaster. (YIQTOL)

¹⁶ bayyôm hahûʔ yēʔāmēr lîrûššālaïm

¹⁶ In that day, it will be said to Jerusalem: (YIQTOL)

ʔal-tîrāʔî šiyyôn

“Do not fear, Zion. (Jussive)

ʔal-yirpû yāḏāyik̄

Do not let your hands grow slack.” (Jussive)

¹⁷ yhw̄h ʔēlōḥáyik̄ bəqirbēk̄

¹⁷ The Lord, your God, is in your midst. (Null copula)

gibbôr yôšî^{ac}

As a mighty one, he can save. (YIQTOL)

yāsîs ʕālayik̄ bəśimḥā^h

He will exult over you with joy. (YIQTOL)

yahârîš bəʔahāḇāṭô

He will quiet you with his love. (YIQTOL)

yāḡîl ‘ālayîḡ bərinna^h

He will shout over you with a cry of jubilation. (YIQTOL)

It is generally recognized that there is a division between verses 13 and 14 (Berlin 1994; Robertson 1990; Sweeney 2003).⁸⁰ I have only analyzed up to 17 for the sake of space.⁸¹ In the previous unit (3:8-13), God predicts a *future* day of salvation with a string of YIQTOLS and WEQATALS. However, this unit begins with imperatives (*ronni* ‘rejoice’, *hārî‘û* ‘shout’, *šimḥî* ‘be glad’, and *wə‘olzi* ‘exult’), which, according to the definition given in section 2.5.1, give a command because they are in imperative sentential mood. According to the semantics of imperative sentential mood, the very act of giving an unqualified command creates an obligation for the hearer because upon giving the order, the command can be either obeyed or disobeyed (though the time at which the hearer is obligated to perform the action may be in the distant future). Yet, the rejoicing given as a command in verse 14 cannot be at the actual time of writing for Zephaniah (his literal present time) because the context demands a rejoicing at the time of salvation, not at the present moment. In fact, judgment will come on Jerusalem before salvation as Zephaniah 3:1-7 makes clear.⁸² Clauses 14a and 17d refer to similar situations that happen simultaneously: the point is that there will be mutual rejoicing between God and His people on the day of salvation.

Yet, the rejoicing of YHWH in 17d is clearly set in future time with the adverbial (‘on that day’) in verse 16 (the TT for both 16 and 17), while the rejoicing of the people in 14 is commanded using an imperative, which necessarily gives a command at the TU (as

⁸⁰ This is evident by the content and the form of the verses. For the content, Zephaniah moves from future judgment and salvation to the actual day of salvation, and the emphasis is on how Zion should respond on that day, not just what will happen. With regard to form, the imperatives mark a sharp division with the previous YIQTOLS, and whereas YHWH is the speaker in 3:8-13 (and he is thus in first person), the prophet is the speaker beginning in 3:14.

⁸¹ It is debatable whether verse 17 is the end of the unit or not, but this question is irrelevant for my present purposes. However, the chiasm (explained below) suggests that it is a boundary.

⁸² Not only is this interpretation of the rejoicing evident by the prior judgment pronounced upon Israel, but the structure also suggests it. According to Wendland, this unit has a chiastic structure, and the imperatives are related to the rejoicing at the end of verse 17 (2014:518), which is explicitly set in future time beginning with the adverbial in verse 16 (ḥayyôm hahû? ‘on that day’). These coordinate lines refer to situations that occur at the same time, but verse 14 uses FDD, while verse 17 uses DD.

discussed above). The command given could simply have an obligation time in the distant future (as in *Move to Florida when you retire*), but this would not accord well with the sense of immediacy that many Hebraists have noted with the imperative (see Cook 2012:246:247 for a brief discussion). Commands not qualified with adverbial phrases are normally not interpreted in the distant future. Instead of saying the imperative has an obligation time in the distant future without an adverbial phrase, I am proposing that the reason why the imperative should be interpreted as an obligation for the distant future is that the TU changes from the narrator's perspective at the time of writing to another future time (in this case, the time of Israel's salvation) because of FDD. So the imperative still creates an obligation when it is uttered and has an obligation time shortly afterwards, but the TU is simply in the future.⁸³ In this context, Zephaniah places himself in the midst of Israel having already been saved and tells the people in that time to rejoice.⁸⁴ A comparison of the time structures for Zephaniah 3:14a and 3:17d is found in

Figure 12 below. I present both the TU of the narrator (labelled TWrit) and the new TU's (labelled "TU_{FDD}" and "TU_{DD}") to show how Zephaniah's perspective changes to a future time (not to suggest that the TT is related to both—it is only related to the TU, so the TWrit becomes completely irrelevant once the new TU is established in DD and FDD). This new TU becomes the TA for the following clauses. While this shift to the future is without marking through FDD in verse 14 (the top structure), it is made explicit through DD in verse 17 (the bottom structure).

⁸³ Obviously, if the Time of Utterance were taken very literally and strictly, Zephaniah's TU would have to be sometime between 640-600 BC (approximately) and could not be when Israel experiences salvation. However, as shown in 2.6.1, the TU always changes in FDD and DD because all of the deictic elements change and a new embedded discourse has begun.

⁸⁴ This shift in perspective with the imperative (encoding a future obligation as if it were present) is a common phenomenon in the prophets. In my corpus, it is found in the following examples: Zephaniah 1:11a; Micah 1:16a-c; 4:13a-b; 7:14a. FDD is not an uncommon phenomenon in BH and is not limited to the prophets. Outside of my corpus, Psalm 2:7 is a great example of a similar shift in perspective.

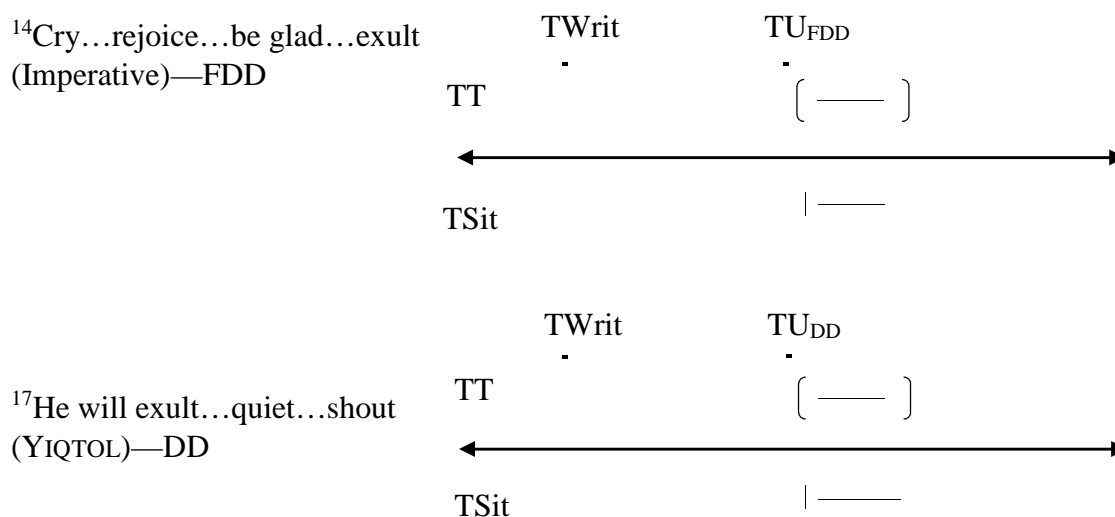


Figure 12: Zephaniah 3:14a and 17d Time Structure Comparison

If the TU has changed, the perfect QATALS (*hēsîr* ‘has taken away’ and *pinnā^h* ‘has cleared away’) in verse 15 should also still be present perfect (rather than future perfect, though the situations depicted are in the future relative to the TWrit) because they describe the state of salvation that provides the reason for rejoicing.⁸⁵ Since they are a description of the day of salvation that causes and must necessarily precede the rejoicing, these QATALS have an Explanation relation to the imperatives. God takes away Israel’s enemies, and then Israel rejoices. The TT includes the new TU, but the TU has changed to a future time relative to TWrit. The TSits for the perfect QATALS are prior to the TT (since they are perfects), but these situations are still future relative to the TWrit, since they will take place after Zephaniah’s time of writing. The second QATAL (‘has cleared away your enemies’) is related to the first (‘has taken away your judgments’) by Elaboration because they are referring to the same situation.⁸⁶ The judgments on Israel are carried out by their enemies,

⁸⁵ This is exactly how most English translations (ESV, NET, NIV, KJV, etc.) translate it as well, i.e. “The LORD has taken away the judgments against you.”

⁸⁶ More accurately, this relationship may be called Continuation because the second QATAL continues the same topic as the first QATAL (de Swart 2007:2280). I label it Elaboration here because there is still temporal inclusion between the two QATALS, but technically, the second QATAL is not elaborating upon the first QATAL but is continuing the same relationship of Explanation begun with the first QATAL.

so when the enemies are taken away, the judgments are also taken away (and if the judgments are gone, it implies that the enemies are gone as well).

The following null copula clause in 3:15c (*mēleḵ yisrāʾēl yhwḥ bəqirbēḵ* ‘the king of Israel, YHWH, is in your midst’) has a Background relation and should be taken as expressing temporal inclusion with the previous perfects because the situations described by the previous perfects are included in the null copula clause. This is normal for stative predicates (see section 2.6.2.3) and is the case here because the situation does not elaborate on another previous situation (as would be necessary for the Elaboration relation). In the next clause, the fact that Israel will never fear again must be a consequence of God rescuing them from their enemies, since these enemies are the cause of their fear. Hence, the future YIQTOL in the last clause has a Narration relation to the preceding Explanation clauses and is future relative to the already future TA (relative to the time of writing). This situation is also imperfective (see 3.4.4 for when YIQTOL should be interpreted perfectly and when it should be taken imperfectively), since the situation *you will never again fear* has no endpoint. The temporal structure of the first two verses are shown in Figure 13. (I am omitting the time charts for all of the imperatives except one, since they are all related by Elaboration and have temporal inclusion.) The discourse relationship next to the name of the verbal form is how the clause relates to what immediately precedes it, and any other relations to different clauses are presented in parentheses below that line. (I follow this convention throughout.) In the charts, I show only the TA (since this is the only relevant time besides TT for tense), but it should be remembered that this is equivalent to TU_{FDD} and not TW_{rit} as discussed above.

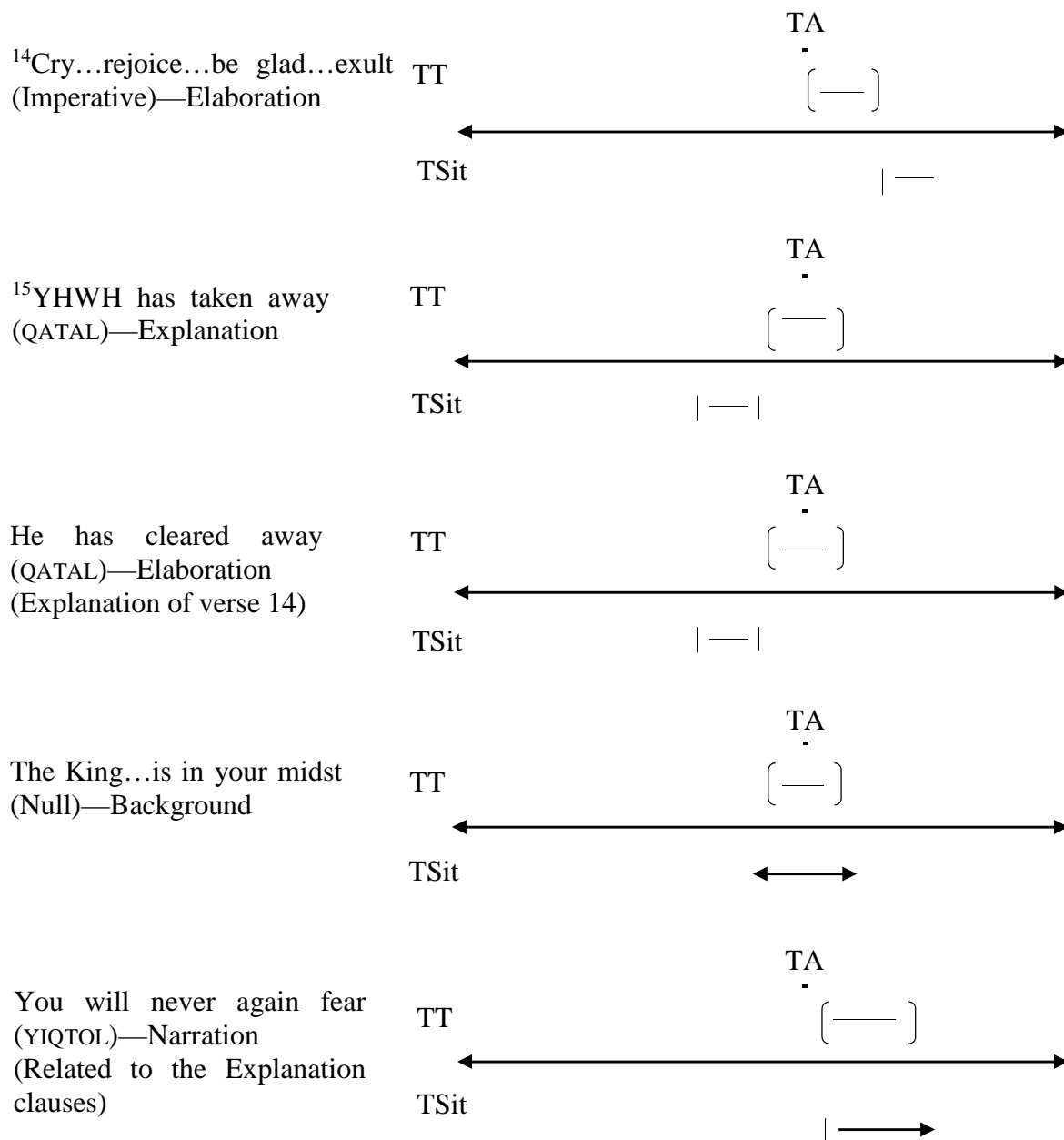


Figure 13: Zephaniah 3:14-15 Time Structure

The temporal structure above shows that an imperative and QATAL, though not tenses, may still be affected by a change in the TA. The TA is the point or interval in time which both tenses as well as purely aspectual, modal, or mood forms are related to, even though the latter do not directly encode a relationship between the TT and the TA. These

forms are still located in time by a default temporal interpretation, and when they are set in a time interval, they are related to the TA. Thus, all of these clauses fit nicely within the semantics of the forms proposed in the previous chapter as long as the TA shift to the future through FDD is recognized.

Verse 16 begins with an adverbial (*bayyôm hahû* ‘in that day’) in initial position. *That* refers back to the day of salvation which was the TA in the previous two verses. The adverbial establishes *that day* as the TT, but the TA has now changed back from TU_{FDD} to TWrit. So, the TA is the time of writing in this initial clause. The YIQTOL, (*yēʾāmēr* ‘it will be said’), is future in relation to the new TA. Verse 16 has another instance of TU changing with the verb of speaking introducing DD and the imperative sentential mood again being used (jussives in this case). The new TA after the verb of speaking, then, is TU_{DD}, which is equivalent in time to TU_{FDD} discussed above. Hence, the structure is essentially the same as verse 14 above with the imperatives, but in this case, the TU’s change is marked, while it was unmarked in verse 14. The two negative jussives (*ʾal-tîrāʾî šîyyôn* ‘Do not fear, Zion’ and *ʾal-yîrpû yāḏāyîk* ‘Do not let your hands grow weak’) are related to each other by Elaboration, since they both refer to the same situation (not letting your hands grow weak is an idiom for fearing). These temporal relationships showing the change in TU through DD is in Figure 14 below (I omit the TA in the time structures, but it is equivalent to the TWrit initially and changes to TU_{DD} when the quote begins).

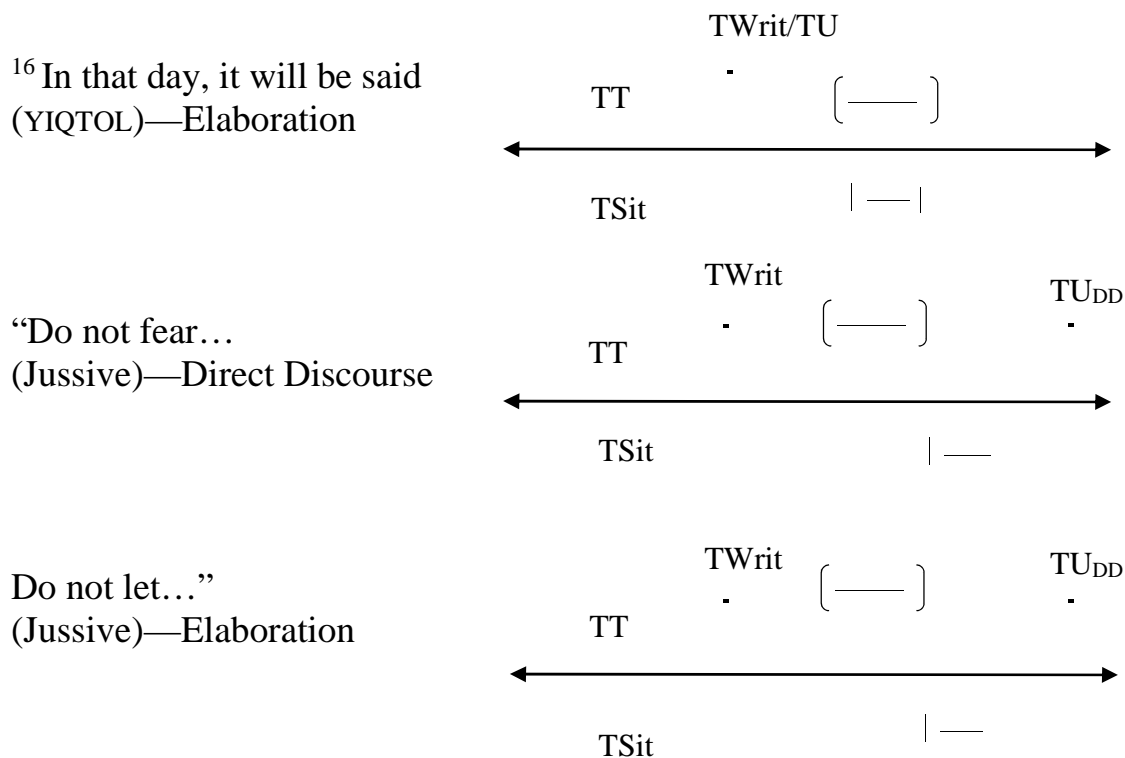


Figure 14: Zephaniah 3:16 Time Structure Showing TU Changing in DD

In verse 17, the DD is continued as shown by the pronoun references. Whereas verse 18 shifts to God speaking in first person, the DD in 16 and 17 refer to God in third person. Because of this, the TT is still the day of salvation as established by the previous verse. Thus, the null copula clause (*yhwh ʾēlōhāyik bəqirbēk gibbôr* ‘YHWH, your God, in your midst is a warrior’) should be taken as present relative to the new TA (TU_{DD}) just as it was in the parallel null copula clause in verse 15.⁸⁷ The next YIQTOL (*yôšîʿ* ‘can save’) is in present time, either as a dynamic modal or as a present habitual, since it would be

⁸⁷ Where to place the copula in the first clause is debatable in Hebrew and affects the second clause. It could read either as *The Lord, your God, in your midst is a warrior. He can save...* or as *The Lord, your God, is in your midst. A warrior who can save...* I prefer the first option, but it does not make a difference for my present argument. Either way, it is God’s status as a warrior that gives him the ability to save.

illogical to say on the day of salvation that the Lord will save at some future time. The day of salvation already presupposes that God has saved. Hence, it is most likely not a prediction of the future given the previous change in TA due to the DD. It would be a source of comfort to know, though, that if any adverse circumstances should take place, the Lord, as a mighty warrior, would be able to save (or is one who habitually saves) in the present.⁸⁸ Whether a dynamic modal or a present habitual, this clause should be treated as a state, so it has a Background relationship and is a further Elaboration of the previous state. The following YIQTOL clauses (with the verbs *yāsīs* ‘will exult’, *yaḥārîš* ‘will quiet’, and *yāḡîl* ‘will shout’) are all in future time, and the first and third are atelic predicates (‘will quiet’ is telic, so it is perfective). It is difficult to determine whether the atelic predicates should be interpreted perfectly or imperfectly, and a legitimate case can be made either way. I have taken them to be imperfective, describing what God will be in the process of doing on the day of salvation, because they follow two other imperfective clauses that explain why Israel should not fear at that time. On that day, there will be no reason to fear because God will be exulting over his people, quieting them by his love, and shouting in joy for them.⁸⁹ The second and third YIQTOL clauses are in an Elaboration relationship to the first clause. Their relationship to the other clauses is more difficult to determine. Because the singing and exulting must come after God is already in the midst of his people but this latter situation does not end, they are best analyzed as Narration/Elaboration to the previous background clauses. The time chart for both verse 16 and 17 is shown in Figure 15 (just as for the imperatives above in verse 14, I leave off the Elaboration relation between the last three YIQTOL clauses). Only the TA is shown because, again, the TWrit is irrelevant when the TU shifts in DD, and the TU_{DD} is obviously

⁸⁸ See the NET Bible for support for the dynamic modal translation. It seems more likely to be a dynamic modal expressing what the Lord can do given his nature of being a mighty warrior than a present habitual. The fact that YHWH could do something in the present if need arises would be a great source of comfort to those who are saved. In either case though, the time structure would not be greatly changed, since both would be in present time and would not be perfective. Either way, the coordination with the null copula clause suggests a present interpretation and either a general characteristic of God’s capacity to save (ability modal) or of God’s actual saving (habitual).

⁸⁹ The argument for perfective would be that these situations are being viewed as wholly contained within the day of salvation. Either interpretation is plausible.

irrelevant when the TWrit is the TA (I have also omitted the perfective YIQTOL, 'will quiet', for the sake of space).

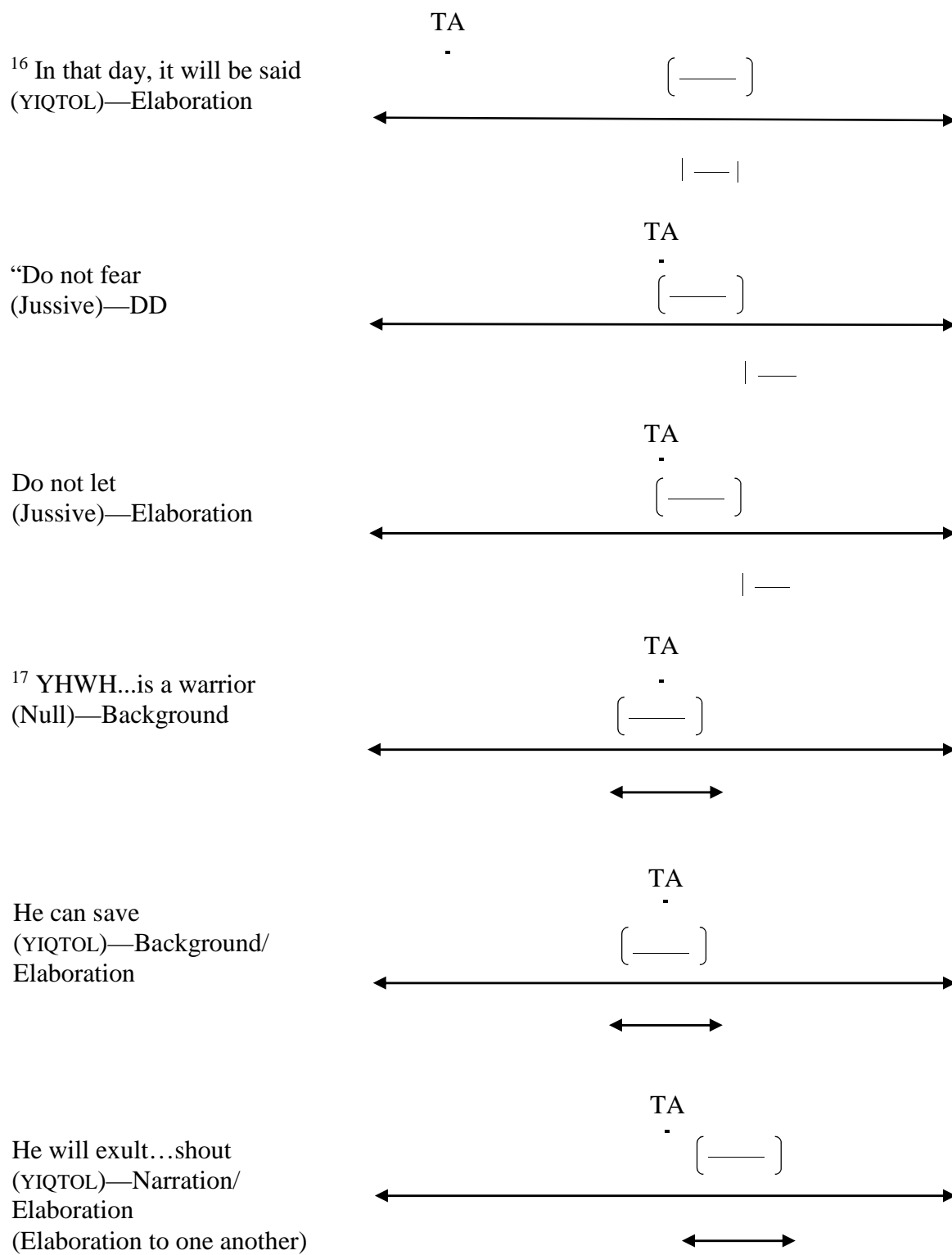


Figure 15: Zephaniah 3:16-17 Time Structure

There is a clear repetition of theme between verses 14-15 and 16-17 as reflected in the similar time structures shown above, but whereas the latter clauses are in DD, the former are in FDD. In section 2.6.1, I showed that it can sometimes be hard to determine the boundaries of FDD and FID due to the lack of overt marking showing changes in perspective. This problem can be remedied by repeating the information in a clearer format, which is what happens in this passage in the second half of the chiasm. Although this does not always happen with FDD, it may be used to make the situations referenced more explicit. It has been observed that chiastic structures often don't advance the TT, but they present different aspects of the same situation (Andersen 1974:120). This is most likely because coordinate clauses in chiasms often refer to the same situations in the real world, but these situations can be referred to by various means, possibly by using FDD or DD to depict different aspects of the same situation. Thus, the analysis of Zephaniah 3:14-17 I have presented shows that a prophet may speak from a future perspective without indicating he is doing so, and this accounts for the many times QATAL was used in future time reference relative to the time of writing (as discussed in 3.2.1).

4.2 Micah 2:1-2

הָיוּ חֲשִׁבֵי־אֶוֶן וּפְעֵלֵי רָע עַל־מִשְׁכְּבוֹתָם
 בְּאֹר הַבֶּקֶר יַעֲשׂוּהָ
 כִּי יֵשׁ־לֵאלֹד יָדָם:
 וְחֲמָדוֹ שָׂדוֹת²
 וּגְזָלוֹ
 וּבְתִים
 וּנְשָׂאוֹ
 וַעֲשֻׁקוֹ גִּבֹּר וּבֵיתוֹ וְאִישׁ וְנַחֲלָתוֹ:
 לִכְן כֹּה אָמַר יְהוָה³
 הַנְּגִי חֲשֹׁב עַל־הַמִּשְׁפָּחָה הַזֹּאת רָעָה
 אֲשֶׁר לֹא־תִמְשְׁכוּ מִשָּׁם צִוְּאוֹתֵיכֶם
 וְלֹא תִלְכּוּ רוֹמָהּ
 כִּי עַתָּה רָעָה הִיא:

hôy ḥōšbê-ʾāwen ûpōʿālê rāʿ al-miškabôtām

¹ Woe to the ones who devise iniquity and practice evil on their beds. (Nominal participles)

bəʾôr habbōqer yaʿāšûhā

In the light of the morning, they do it, (YIQTOL)

kî yeš-ləʾēl yādām

For it is in the power of their hands. (Null copula)

² wəḥāmdû šādôt

² They desire fields, (WEQATAL)

wəgāzālû

And they seize them. (WEQATAL)

ûbāttîm
[they desire] houses, (Gapped verb)

wənāśā'û
And they take them. (WEQATAL)

wə'āšqû géber ûbêtô wə'îš wənaḥālātô
They oppress a young man and his house, a man and his inheritance. (WEQATAL)

This passage begins with nominal participles (*ḥōšḥê-ʾāwen* ‘devise iniquity’ and *ûpō'ālê rā'* ‘practice evil’) that describe characteristic actions of the people who are to be judged. These habitual nominal participles are parallel to the habitual YIQTOL (*ya'āsûhā* ‘do it’) in the next clause. The adverbial phrase (*bə'ôr habbōqer* ‘in the light of the morning’) describes when they characteristically perform the actions; it does not refer to a specific morning but to a general timeframe.⁹⁰ The present habit depicted by the habitual YIQTOL implies that there were multiple occurrences of the same situation (because it is a habit) before the present moment, showing that the habit began in the past and is current in the present. The next null copula clause (*kî yeš-lə'ēl yāqām* ‘for it is in the power of their hands’) gives the reason why they do it in the morning, and it has a Background relationship to the previous habitual.

Verse two has a string of WEQATALS (*wəḥāmdû* ‘desire’, *wəḡāzālû* ‘seize’, and *wənāśā'û* ‘take’) that are all habitual and in an Elaboration relation to the prior habitual YIQTOL (*ya'āsûhā* ‘do it’), but some of the WEQATALS have different embedded discourse relations. Seizing the fields must come after desiring them, so the first WEQATAL (*wəḥāmdû* ‘desire’) and the second (*wəḡāzālû* ‘seize’) are related by Narration. The same is true for the third (gapped ‘desire’) and fourth (*wənāśā'û* ‘take’) clause where the gapped *desire* situation must again come before any house is actually taken. In chapter two

⁹⁰ It is also most likely idiomatic, expressing that they do it as soon as they are able.

section 2.3.2.4, I analyzed habituals as involving an iteration of situations that are characteristic of a certain individual or a group of individuals, and in chapter three section 3.2.4, I followed Cook and said that forms with a habitual interpretation keep their normal TAM values. Here, it is also evident that habitual situations may still have a discourse relationship to other habitual situations, so that one habitual may temporally precede, be included in, or succeed another habitual. In other words, the same discourse relationships that hold between individual situations may also hold between habitual situations.

If two successive habitual clauses describe situations that are parts of a more general habit, they will share the same topic time. For example, if Carmine has a habit of smoking, there will ordinarily be a time of lighting the cigarette and a time of actually smoking every time the general habit of smoking occurs. This is illustrated in Figure 16 below, which could depict a sentence like *On Tuesdays, Jim plays basketball, and then goes to work* (*plays* is TSit A, and *goes* is TSit B). The first timeline in Figure 16 shows the relationship between TSit A and the TT. Notice that TT overlaps with the present, so the chart shows a present habit. The second timeline in Figure 16 shows the relationship between TSit A and TSit B. Each occurrence of TSit A is followed by an occurrence of TSit B, showing that they stand in a Narration relationship.

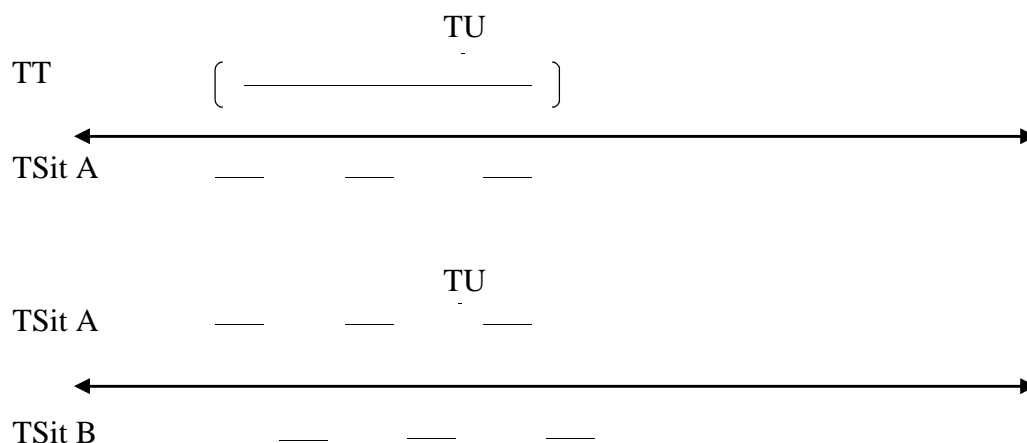


Figure 16: Narration Discourse Relation Between Habitual Situations

The final clause in Micah 2:1-2 (*wəʕāšqû* ‘oppress’) zooms out to another general description of what the wicked men do (the first general description occurred in the first clause *In the morning, they do it...*), summarizing and further describing the situations preceding it; therefore, it has an identical time structure to the first habitual YIQTOL and has an Elaboration relation to that clause. The synonymy in time structure is evident by the fact that both situations refer to the same habit: the evil deeds they perform morning by morning are the same real-world situations as their habitual oppressive acts. This is in contrast to the other Elaboration clauses which only present part of the general habit shown in the first verse. As above, I have labeled each successive situation as A, B, C, etc. in order to help show the relationships between the habitual situations and to help keep track of what situations have relationships and what do not. The temporal structure of the first two clauses is found in Figure 17 below (I have omitted the nominal participles in the beginning of verse 1).

The temporal relationships in this discourse demonstrates two significant points. First, WEQATAL does not have sequentiality as part of its invariable meaning as some Hebraists have suggested (see 4.5.2). Rather, sequentiality is only a common function of WEQATAL that stems from its perfective value. Second, habitual clauses may have the same

temporal relationships that non-habitual clauses have, which shows that habituality is encoded on the clause level rather than the discourse level (see 4.5.3 for a brief discussion).

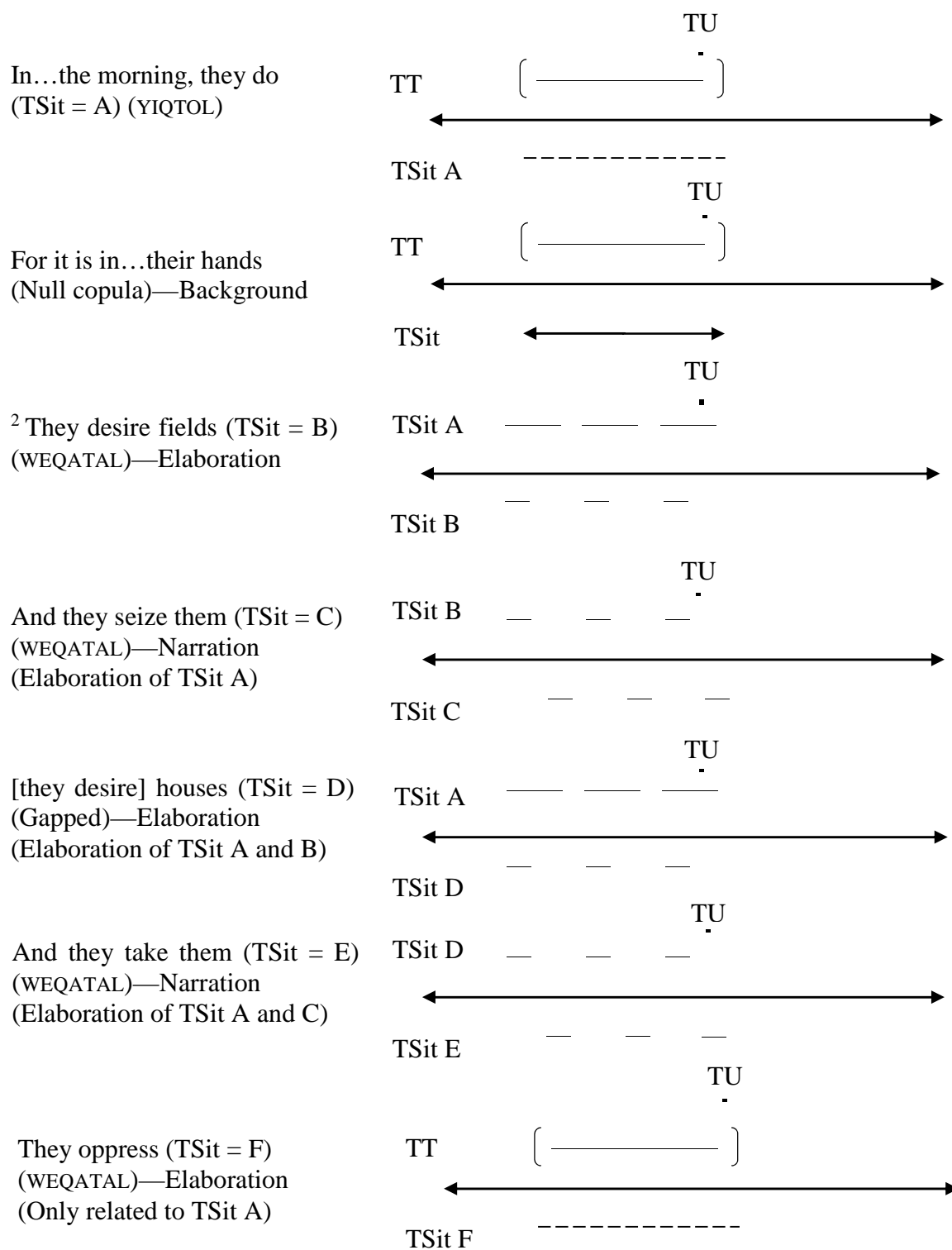


Figure 17: Micah 2:1-2 Time Structure

4.3 Amos 2:9-10

9 וְאַנְכִי הִשְׁמַדְתִּי אֶת־הָאֹמֹרִי מִפְּנֵיהֶם
 אֲשֶׁר כְּגִבֵּה אֲרָזִים גָּבְהוּ וְחֹסֶן הוּא כְּאֵלֹנִים
 וְאֲשַׁמִּיד פְּרִיו מִמַּעַל וְשָׂרְשָׁיו מִתַּחַת:
 10 וְאַנְכִי הֶעֱלִיתִי אֶתְכֶם מֵאֶרֶץ מִצְרַיִם
 וְאוֹלַךְ אֶתְכֶם בַּמִּדְבָּר אַרְבָּעִים שָׁנָה לָרֶשֶׁת אֶת־אֶרֶץ הָאֹמֹרִי:
 11 וְאֶקִּים מִבְּנֵיכֶם לְנָבִיאִים וּמִבְּחֹרֵיכֶם לְנָזִירִים
 הָאֵף אֵין־זֹאת בְּנִי יִשְׂרָאֵל
 נֶאֱמַר־יְהוָה:

⁹ wəʾānōkî hišmādtî ʿet-hāʿēmōrî mippənêhem

⁹ And I destroyed the Amorites from before them, (QATAL)

ʾāšer kəgōḇah ʾārāzîm goḇhō

Whose height was like the height of a cedar, (null copula)

wəḥāsōn hûʾ kəʾallônîm

and whose strength was like the oak. (null copula)

wāʾašmîḏ piryô mimmaʿal wəšorāšāyw mittāḥaṭ

I destroyed his fruit above and his roots beneath. (WAYYIQTOL)

¹⁰ wəʾānōkî heʿēlētî ʿetkēm mēʿereš mišrāyim

¹⁰ And I brought you from the land of Egypt, (QATAL)

wāʾolēk ʿetkēm bammiḏbār ʾarbāʿîm šānā^h lārēšet ʿet-ʿereš hāʿēmōrî

And I led you in the wilderness for forty years to possess the land of the Amorites.
 (WAYYIQTOL)

¹¹ wāʾāqîm mibbənêkēm linḇîʾîm ûmibbaḥûrêkēm linzîrîm

And I raised prophets from your sons and Nazirites from your young men. (WAYYIQTOL)

ha'aḇ ʔēn-zōʔt bənê yiśrāʔēl
Is this not so, sons of Israel? (null copula)

nəʔum-yhwh
Utterance of YHWH.

This short unit in Amos is divided from the surrounding verses by theme: it is about YHWH's past provisions for Israel rather than Israel's present sins (the content of verses 2:6-8) (Wendland 2014:44).⁹¹ Because it is set in the past, it contains three of the few cases of WAYYIQTOLS in my corpus. The structure of the first two verses are very similar: both have a pronoun followed by a perfective QATAL set in past time and then typical past-perfective WAYYIQTOLS. The last verse also has a WAYYIQTOL set in past time, but it is habitual as is explained below.

To begin with, the first QATAL (*hišmāḏtī* 'destroyed') is describing a past event (with the TU as the TA) that was completed in the TT, i.e. it is perfective. The past temporal reference is to be expected given the semantics of QATAL discussed above in section 3.2. In the following WAYYIQTOL, the same lexical item is repeated (*wāʔašmīḏ* 'destroyed'), and the referent of the object destroyed (the Amorites) is the same.⁹² Because these situations are the same, the WAYYIQTOL has an Elaboration relation to the previous QATAL. The situation depicted by the WAYYIQTOL clause has the same time structure as the QATAL clause; hence, it does not advance the TT. This is in direct contradiction to those theories that claim that WAYYIQTOL is a sequential form (see section 4.5.2 below for more on this position) because it does not always have a Narration relation. The time structure for the first two clauses is shown in Figure 18:

⁹¹ The verse after the unit is about Israel's past rejection of the prophets, so, though related, there does seem to be a minor disjunction at the end of verse 11 (Wendland 2014:44). The following clauses could very well be analyzed as part of the same unit, but it is not helpful in demonstrating my present point, so I omit it.

⁹² In the WAYYIQTOL clause, the object of destruction is actually *his fruit*, but this is just carrying on the metaphor of calling the Amorites a great tree in the previous clauses. The metaphor does not change the real world referent.

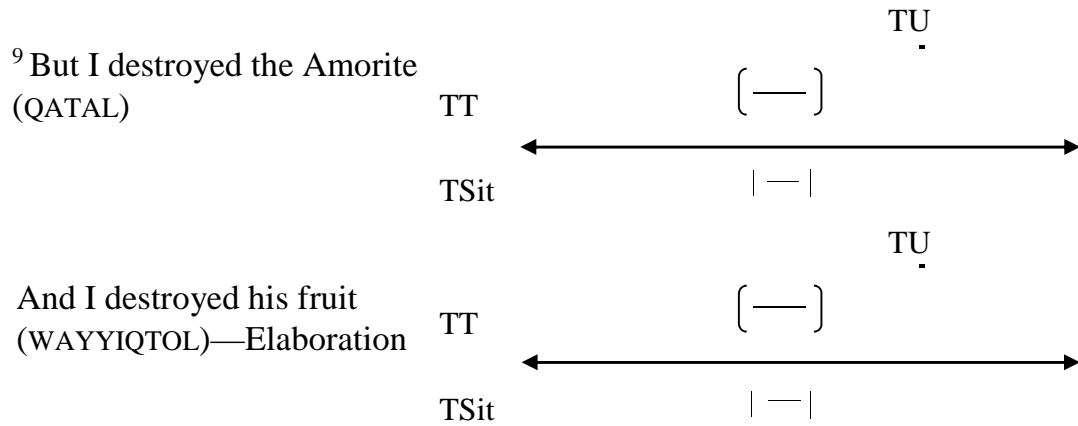


Figure 18: WAYYIQTOL Elaboration Time Structure

Verse 10 is also related to the TU and has a perfective QATAL (*he^cēlēṭî* ‘brought’) in past time followed by the past-perfective WAYYIQTOL (*wā²ôlēk* ‘led’). However, these situations are prior to the situations in verse 9 because destroying the Amorites followed the exodus from Egypt and the journeying in the wilderness (Keil & Delitzsch 2006). Hence, these have an Explanation relation to the preceding situations.⁹³ Within the Explanation relation, the WAYYIQTOL is related to the previous QATAL by Narration because God leading Israel in the wilderness for forty years came after He brought them out of Egypt.

Finally, the last WAYYIQTOL clause (*wā²āqîm* ‘raised up’) is in verse 11 and is a description of how God had continually raised up prophets for Israel in the past. While *raise up* is a telic predicate that would ordinarily be interpreted perfectly with the past-perfective WAYYIQTOL form, the context combined with the bare plural objects *prophets* and *Nazirites* yield a habitual interpretation (see section 3.2.4.1 for how bare plural objects combine with a large TT and perfective aspect to yield a habitual interpretation). God did not raise up a prophet in an isolated instance (a non-habitual, non-iterative situation), nor

⁹³ “Explanation” is a poor term to use in this case for temporal precedence because these clauses don’t explain why the Amorites were destroyed in the previous verse. Although the Explanation relation ordinarily does answer the question of why some other situation has occurred, the important point for my purposes is the temporal relationship between the clauses.

did He raise up many prophets at one time (a non-habitual, iterative situation), but He raised up many prophets over a long period of time, i.e. He did so habitually over Israel's long history. This satisfies both criteria for habitual situations established in section 2.3.2.4: there is a large TT and a characteristic iteration of situations for the TSit.

The relationship between this habitual WAYYIQTOL and the preceding situations is not very transparent. There is certainly temporal overlap between the habitual and the previous two verses, so the only two possible relationships are either Background or Elaboration. Background is the better fit because the habitual situation does not elaborate on the previous situations, but it gives more details about that time period. Either way, though, the temporal structure is the same. God raised up prophets throughout Israel's history, including during the time of those previous situations. The time structures for Amos 2:9-11 are shown in Figure 19 below.

Just as the discussion of Micah 2:1-2 revealed that WEQATAL need not be sequential (as is sometimes asserted), so the present discussion on Amos 2:9-10 has shown that WAYYIQTOL need not be sequential either (again, see 4.5.2 for a discussion). The temporal structures found in Amos 2:9-10 has also revealed another clear example of WAYYIQTOL used in a habitual clause, which is a debated function (see 3.5.2.1 for a discussion).

4.4 Micah 7:16-17

16 יִרְאוּ גוֹיִם
 וַיִּבְשׁוּ מִכָּל גְּבוּרָתָם
 וַיִּשִּׁימוּ יָד עַל־פִּה
 אֲזִנֵּיהֶם תִּחְרֹשְׁנָה:
 17 יִלְחֲכוּ עֹפֶר כְּנָחָשׁ כְּזֹחֲלֵי אֶרֶץ
 יִרְגְּזוּ מִמִּסְגְּרֹתֵיהֶם
 אֶל־יְהוָה אֱלֹהֵינוּ יִפְחָדוּ
 וַיִּרְאוּ מִמֶּךָ:

16 yir'û gōyīm
 Nations will see, (YIQTOL)

wəyēbōšû mikkōl gəbûrātām
 And they will be ashamed from all their deeds. (YIQTOL)

yāšîmû yād ʿal-pe^h
 They will put a hand to the mouth (YIQTOL)

ʔoznêhem teḥěrašnā^h
 Their ears will be deaf. (YIQTOL)

17 yəlahəḵû ʿāpār kannāḥāš kəzōḥālê ʔères
 They will lick up the dust like a serpent, like creatures that crawl on the ground (YIQTOL)

yirgəzû mimmisgərōtêhem
 They will come trembling from their strongholds (YIQTOL)

ʔel-yhwh ʔēlōhênû yipḥādû
 To YHWH, our God, they will turn (YIQTOL)

wəyir^ʔû mimmékkā
 And they will fear you. (YIQTOL)

These two verses represent a future day when the nations will be judged. They do not comprise their own unit nor are they on a unit boundary, but they serve as an embedded Elaboration of verse 15, which talks about how God will show Israel amazing things just as when they were brought out of Egypt (the amazing things being comparable judgments). Because future situations are being referred to, YIQTOL (the form often used to refer to the future) is used throughout the text.

The first YIQTOL (*yir^ʔû* ‘see’) is an atelic predicate, so it can be interpreted either imperfectively or perfectively (see 3.4.4). While the beginning of the situation is included in the TT, the end of the situation is not included in the TT. The former is evident because seeing God’s amazing works is the beginning of the future day of judgment. The latter can be seen by considering the following clauses: there is temporal overlap between the seeing, being ashamed, putting the hand on the mouth, etc., so the seeing cannot be over when the others begin. Although *being ashamed* occurs after *seeing*, *seeing* would not end when the state of *shame* begins. So while the next clause is in a Narration relation, this clause does not end when the following situation begins.

The second YIQTOL (*wəyēbōš^ʔû* ‘be ashamed’) has the same temporal characteristics as the first YIQTOL except that it has a narrative relation to the prior clause. The nations will see the amazing works of God, and then they will be ashamed. Their shame must come after the thing that prompts it, i.e. what they are seeing. Because the shame continues past the following clauses depicting the manifestation of the shame, it also continues beyond the start of the next YIQTOLS.

The next two YIQTOL clauses describe the physical manifestation of the shame experienced by the nations. The first YIQTOL (*yāšīmû* ‘put’) is a telic predicate, which lends itself to a perfective interpretation. It is in a narration relation to the previous YIQTOL, the state of being ashamed. It is only after the state of being ashamed begins that someone would show the effects of that shame, i.e. putting your hand on your mouth. The second

YIQTOL (*teḥēraśnā^h* ‘be deaf’) also has a narration relation to the shame (for the same reason given above), but it has an elaboration relationship to putting the hand on the mouth. It is an atelic predicate that begins after the shame (as another physical response) but does not have a right boundary because the state of being deaf will continue beyond the day of judgment. The two situations have temporal inclusion because they are simultaneous physical consequences of the state of shame. All of the inter-clausal relationships for Micah 7:16 are shown below in Figure 20:

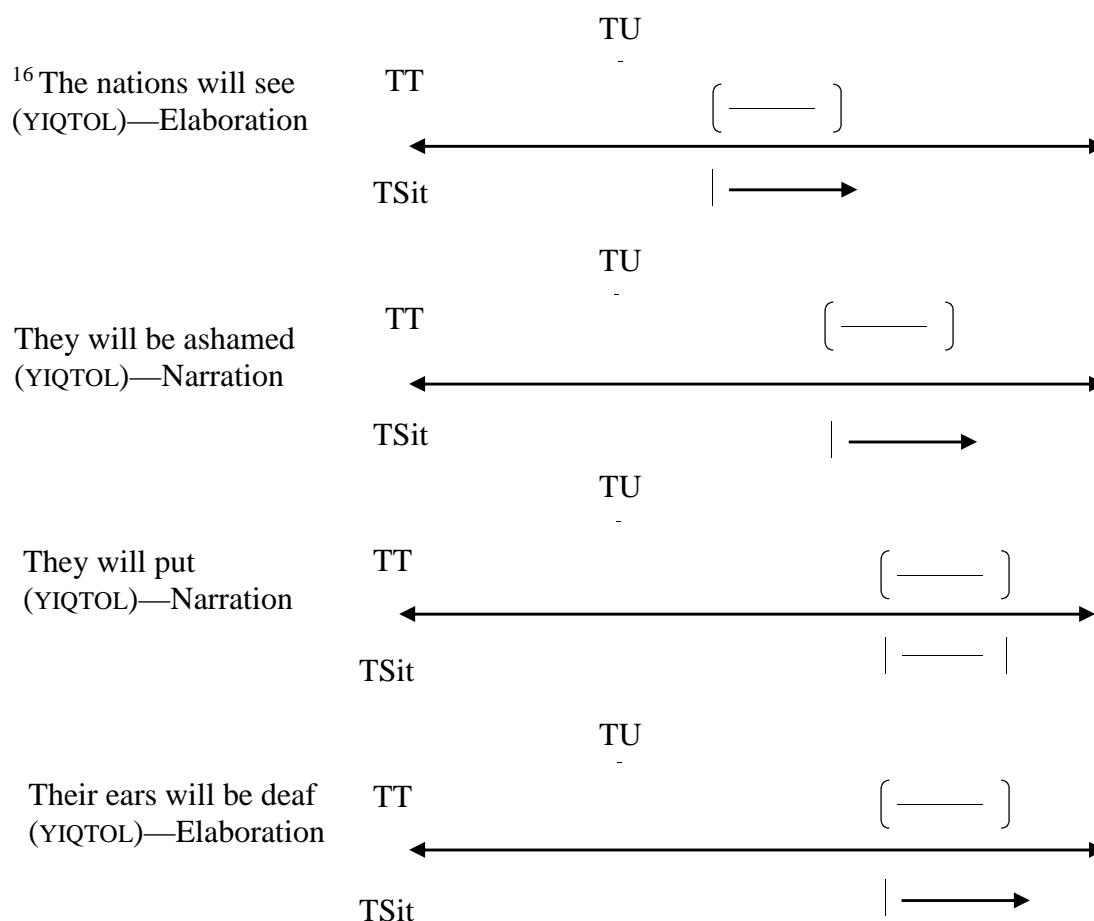


Figure 20: Micah 7:16 Time Structure

Verse 17 begins with a metaphorical description of the nations' response to YHWH. They will *lick up* (*yəlahāḱû*) the dust like a serpent would, a metaphor for bowing down to YHWH.⁹⁴ This is a telic predicate that should, therefore, be interpreted perfectly. It is also in a Narration relation to the two preceding Elaboration clauses in verse 16 because, though it is another physical response to seeing God, it most likely comes after the nations become deaf and put their hands on their mouths in shock. The next clause is difficult because of the meaning of the verb (*yirgəzû* 'shake'). Waltke suggests that a verb of movement should be supplied, as I have done in my translation above, i.e. *they will come trembling* (Waltke 2009:443).⁹⁵ If this is the correct interpretation, a prior situation is being talked about, since their humility and shame must come after they have left their strongholds and are standing before God. Hence, this clause would have to be in an explanation relation to the previous clause. Assuming this view, the time structure of this clause should be similar to the atelic predicate YIQTOLS above: the shaking begins in the TT but continues past it because the people should still be shaking (a metaphor for fear) after they depart from their strongholds and are standing before God. Finally, the last two clauses (*yipḥāḏû* 'dread' and *wəyir'û* 'fear') are in a mini chiasm (with a A-B-B'-A' pattern), and both clauses refer to the same situation: the nations fearing YHWH. Because these two clauses represent the same situation, they have an Elaboration relation to each other, but they also have an Explanation relation to the preceding clause because the nations' fear starts while they are still in their strongholds and explains why they come out trembling. These atelic predicates should be interpreted imperfectly because the nations' fear would extend beyond the day of judgment. This is a general description of how the people will be. The temporal structure of verse 17 is shown in Figure 21 below.

My analysis of this last passage in Micah 7 reveals that YIQTOL may have a sequential relationship, though it often has relationships other than temporal succession. Once again, this reveals that YIQTOL, like the other forms, does not have a certain temporal

⁹⁴ See Isaiah 49:23 for a similar idea.

⁹⁵ Another option is to take the preposition as indicating an explanation or reason. In this case, the meaning would be something like 'they will shake because of their strongholds', or in other words, 'they will shake because of the destruction of their strongholds'.

relationship with other clauses as a part of its invariable meaning. There may be more frequent or less frequent temporal relationships between clauses with the same form, but we cannot speak of necessary temporal relationships between clauses.

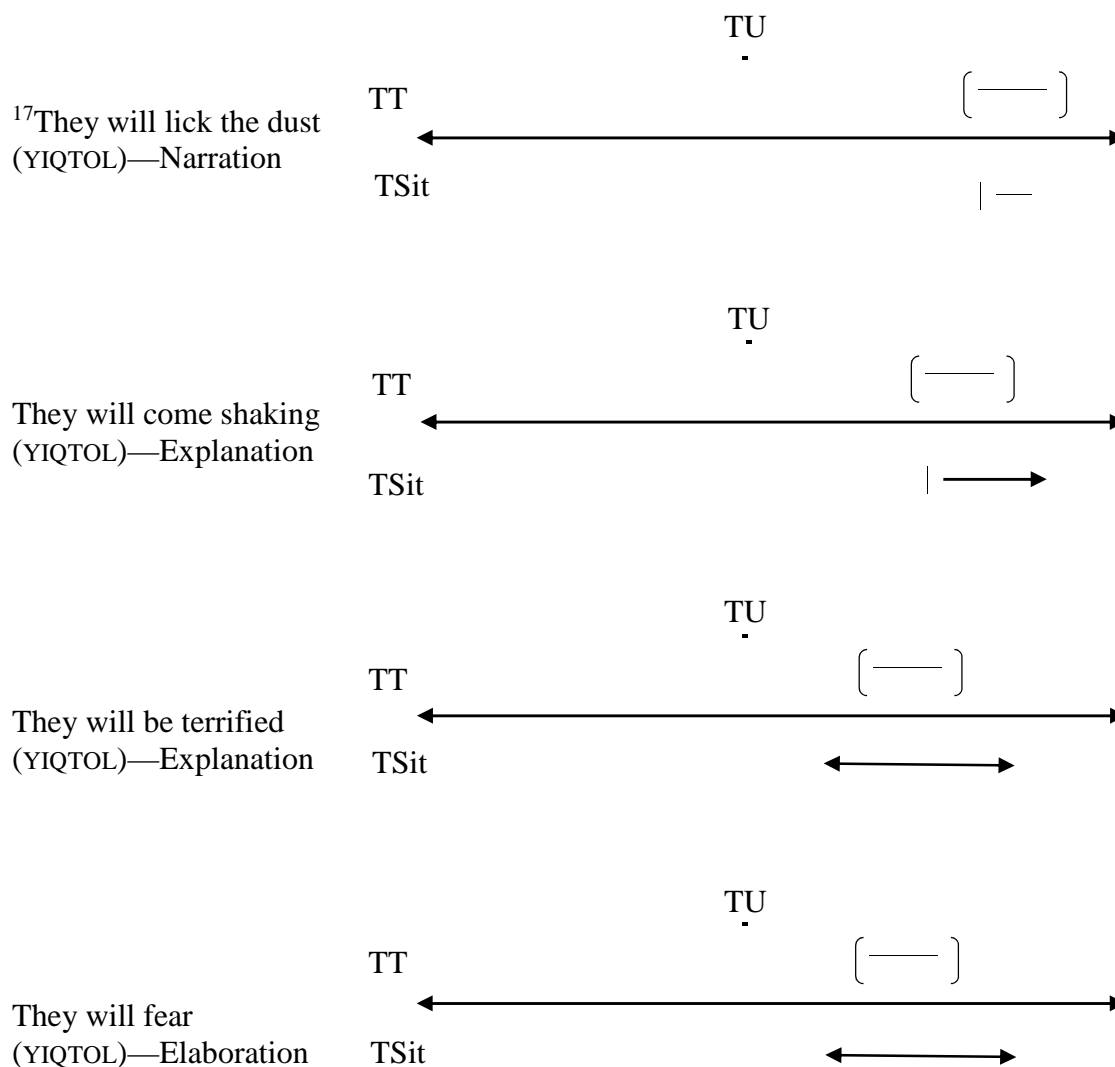


Figure 21: Micah 7:17 Time Structure

4.5 Comparison with other Theories

There are many ways of doing discourse analysis, and the above method is quite restricted in what it conveys. I have limited myself to the temporal relationships between clauses, and I have largely ignored some considerations that other discourse analysts view as central. My theory contrasts with some other popular discourse theories for the BHVS in that I have suggested that a verb form does not specify a *necessary* temporal relationship with another clause. Verb forms only specify temporal relationships between the TA, TT, and TSit (as shown in chapter 3),⁹⁶ but they do not necessarily encode a certain relationship with an adjacent clause. However, a form's temporal meaning may *constrain* the possible relationships between clauses, and the overall configuration of the verbal system may make one form dominant in particular contexts (e.g. WAYYIQTOL in narrative). Yet trends should not be made into laws. I now compare and contrast my theory of discourse with Longacre-Bowling, Hatav, and Cook.

4.5.1 Longacre-Bowling

Longacre and Bowling approach discourse analysis from a different starting place than what I outlined at the beginning of this chapter (I briefly discussed their theory in 2.1.3). Because they approach their study from a different angle, comparing my theory to theirs is quite difficult. One major premise they hold to is that the functions of a form are determined by the discourse type, of which they list nine for the Hebrew Bible (Longacre & Bowling 2015:4).⁹⁷ While I explain below why I disagree with this assumption, Longacre and Bowling do provide much helpful information about how the verb forms are used in a discourse, and in this regard, I compare and contrast my study

⁹⁶ In the case of purely tense forms, only the relationship between the TA and TT is specified, and with purely aspect forms, only the TT and TSit is specified. Verbal moods may also specify a certain characteristic of the overall temporal structure, such as unactualized for irrealis.

⁹⁷ The nine discourse types they list are the following: narrative, predictive, procedural, instructional, juridical, *riyb* (Hebrew for 'indictment'), *qinah* (Hebrew for 'lament'), expository, and hortatory (see Longacre & Bowling 2015:4–11 for more on the definitions of the discourse types).

with theirs after presenting an argument for why the discourse type does not determine the function absolutely.

As discussed briefly in 2.1.3, the issue with making the uses of the form dependent upon the discourse type (or, more generally, the surrounding context) is that the invariable meaning of the form has a tendency to be marginalized. As an example, let us consider the discourse type of narration. It is generally recognized that a necessary element of narrative discourse is progression in the TT (Longacre & Bowling 2015:47). In other words, the story moves forward in time as it is told. This makes the temporal structure of narrative discourse essential to its definition. It is also generally recognized, and has been shown throughout this thesis, that verbal forms are one part of the sentence that encodes temporality (along with adverbs). A string of nouns are ordinarily located in time by the verb and the constituents that modify the verb. This is true of languages that have both aspectual-based and tense-based systems, since both aspect and tense involve temporal relationships. If narrative discourse is necessarily defined by a certain temporal structure and that temporal structure is dependent upon verbal forms, then narrative discourse cannot determine the meaning of verbal forms. Rather, it is the meaning of the verbal forms that create the narrative discourse. Comrie (1986:21) also sees a fundamental dependence of the discourse on the meaning of the verbal forms rather than the other way around (Cook 2012:274 also uses the same quote):

I have learned much about the discourse function of tenses, and even about the meaning of tenses, from such works [that employ “a discourse-based approach to tense”], and from my own studies of how tenses function in a 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.

So, I do not hold to the first premise stated at the beginning of this section, that the discourse type is the primary determining factor for the functions of a verbal form. Rather,

it is the invariable meaning that should be taken as the starting point when determining a form's functions.

Yet, as was stated, Longacre and Bowling do provide useful information about how the BH verb forms function in discourse, and we largely agree on the functions that the forms may have in a discourse. For example, Longacre and Bowling present sequential examples of both WAYYIQTOL and QATAL forms (on what they call the “mainline”) in narrative (Longacre & Bowling 2015:48, 178). Because the semantics of these forms overlap as seen in 3.5.2, this is to be expected. This is similar to what was found by von Stutterheim, Carroll, and Klein (2003) where it was shown that stories were told by native German speakers using either the past tense form or the German Perfekt, which seems to have a very similar range of meaning to QATAL (Klein 2000:358). The case is similar with predictive discourse which “normally” has WEQATAL as the sequential form but may also have YIQTOL (Longacre & Bowling 2015:227). Since both of these forms can be perfective future, this is, again, to be expected. Thus, Longacre and Bowling provide examples that show that multiple forms may be used with the same function. We are in agreement, then, that there is not a single function that has a *necessary* form in certain discourse types (and as a consequence, forms can have multiple discourse functions), but there are forms that are generally used in certain ways because of their semantic values (contrary to Hatav who does see a necessary discourse function with some forms—see below). Forms may be used in a variety of ways given the surrounding context and their relationship to adjacent clauses, so WAYYIQTOL is normally used sequentially, but it can also be used to further describe a situation as seen in section 4.3. Moreover, QATAL, YIQTOL, and WEQATAL can all have these same relations. Thus, there is no *certain* rule about a form's function in a discourse type, but Longacre and Bowling show how the forms are ordinarily used in a wide variety of contexts.

While the functions Longacre and Bowling demonstrate are not to be applied universally (as they themselves assert), they do give helpful general tendencies for different discourse types. The fact that WAYYIQTOL is normally used with a Narration relation is useful, but it is important not to make this a necessary relationship. Clauses may be related

in a number of different ways because, as Comrie has said, it is the discourse function that is dependent on the meaning of the form, not the meaning that is dependent on the discourse function.

4.5.2 *Hatav*

Sequentiality is essential to Hatav's explanation of the BHVS. She proposes that there are two sequential forms in BH, WAYYIQTOL and WEQATAL. According to her, these forms necessarily move the TT forward, or in other words, "These two forms will not appear in non-sequential clauses" (Hatav 1997:56). In addition, she also excludes the possibility that other forms, e.g. QATAL and YIQTOL, can be in sequential relationships: "other forms cannot comprise a sequence" (Hatav 1997:83). This means that whenever WAYYIQTOL and WEQATAL appear, the discourse relationship of Narration would necessarily hold because "BH marks sequential clauses morphologically" (Hatav 1997:56).

There are several problems with this. The first and most obvious problem is that the data does not support the hypothesis as shown above. Even Hatav's own data shows that WAYYIQTOL and WEQATAL are not always sequential (Hatav 1997:57). The discussion on the above passages revealed the same (that these two constructions sometimes have an Elaboration relationship), so they are not always sequential. Moreover, Hatav admits that *every* occurrence of WAYYIQTOL is in past time (Hatav 1997:84), but she still calls the form sequential (despite the exceptions) instead of a past tense (despite there being no exceptions). This strongly suggests that the *invariable* meaning of the form is that the TT precedes the TA (past tense), and a common *function* of the form is a Narration relation to the previous clause.

The second problem with her conclusion is that this theory does not adequately account for instances where WAYYIQTOL is used first in a narrative. In order for a certain relationship between clauses to be a necessary part of the form, it would always have to have some other preceding verb to relate to, but this cannot account for all of the data. Once again, the tendencies found in discourse should not be made into laws. Discourse is too complex to assign a single function to a form at all times.

4.5.3 Cook

Cook's theory of discourse is quite similar to what I have outlined above. Although we have come to some different conclusions on the meaning of the forms as discussed in the previous chapter, he also believes that semantics is a necessary prerequisite to determining discourse functions (Cook 2012:275). His approach to discourse is too nuanced to treat in great detail, but he has many of the same categories I have explained in this chapter (such as TA shift and discourse relationships) though he adopts different terms (Cook 2012:312–326). One important observation he makes is that temporal relationships between clauses are relevant even for sentential moods other than declarative (Cook 2012:319). For example, two clauses in imperative sentential mood may also have a Narration relationship between clauses, though of course such sentences would not be “narrative” in the normal sense of the word. Such discourses often use WEQATAL to present a string of commands that must be obeyed one after another, e.g. *Go to the store, get some food, and come home* (see Cook 2012:319–321 for a more detailed discussion).⁹⁸

One minor point of disagreement is that Cook treats “generic” as a separate inter-clausal relationship that means “An event is true at all times; it is temporally ‘unanchored’” (Cook 2012:319). All of his examples are generics rather than habituals (Cook 2012:325–326). While his definition in general is reasonable, it does not define an interclausal relationship, just a property of individual propositions. Under my view, generics are not, strictly speaking, relationships between clauses, but they are generalizations about a class. More work needs to be done on interclausal relationships within generic statements, but there seems to be at least some possibility of temporal sequence. The clauses *Birds fly north in the summer, and then they fly south in the winter* are generics that seem to have a Narration relation. While an example of this cannot be found in my corpus, an example can be found in Proverbs 6:8, which says *She [the ant] prepares her food in the summer, and she collects her food in the harvest*. Thus, generics should probably not be considered a discourse relation, since they are only a property of an individual proposition and seem to

⁹⁸ As examples of this with WEQATAL, Cook gives Exodus 25:10-14 and Leviticus 1:3-9, both of which I agree with.

allow for temporal sequence, if only in a limited sense. Overall, Cook and I largely share the same framework when it comes to discourse and note similar tendencies with how the forms function in discourse.

4.6 Conclusion

The above charts make several key points about how the discourse interacts with the semantics of the forms discussed in the previous chapter. When two adjacent clauses contain the same verb form, one particular discourse relation may be a more common interpretation than other discourse relations. Thus in Biblical Hebrew studies, it is often mentioned that WAYYIQTOL is the “narrative” form because it is sequential and that WEQATAL is also ordinarily sequential. However, the above discussion and examples show this to be too simplistic. Two adjacent WAYYIQTOL or WEQATAL clauses may be related by Elaboration, which means that their invariable meaning is not a sequential relationship. When considering the entire Hebrew Bible, these forms are indeed used with a Narration relationship quite often, but they do not inevitably move the TT forward.

With regard to sequentiality, it is also noteworthy that YIQTOL and QATAL may have a narration relationship to a previous clause with the same form. While they are often related by Elaboration, there are many exceptions. Because WAYYIQTOL and WEQATAL are ordinarily used for Narration and have similar semantic values to QATAL and YIQTOL, it is reasonable that the latter two forms would often not be used for Narration, but that does not imply that they are *never* used for Narration. There is nothing in the semantics of YIQTOL or QATAL, nor is there anything in the system as a whole, to keep them from being used sequentially, and so they are used in this way.

TA shift through DD and FDD was another significant phenomenon that helped to explain why certain forms were used in unusual contexts. Although the act of uttering an unqualified imperative normally gives a command at the TU, it was seen that the TU may shift to the future (creating a new TA), and when this happens, the imperative may give a command at that later time. This shift in the TU affected all the other forms as well, since they also can be related to a time other than the TWrit. What is of particular significance

about this observation is that WAYYIQTOL is the only tense form according to the semantic values discussed in the previous chapter, and yet all of the other forms may still be temporally related to a TU/TA shift. Tense is the only category that directly relates the TA and the TT, but a non-tensed form may have a default temporal interpretation that is related to a shifted TA. So even though most of the forms in the BHVS don't encode tense, the location of the TA still has significant implications for how the non-tensed forms are used.

CHAPTER 5: CONCLUSION

The system I have presented in the previous chapters is incomplete in several respects because I have not discussed every form that can be used predicatively. The participle and the imperative paradigm⁹⁹ are often treated in studies on the BHVS. These forms are important when viewing the system as a whole, so I present their invariable meanings here simply to show how my entire system fits together. I consider the participle to be a progressive form that can be used predicatively, nominally, or adjectivally and the imperative paradigm to be in imperative sentential mood. This yields the following system (“0” means that the form is unmarked for that category):

Table 11: Summary of Invariable Meanings for the BHVS

	Tense	Aspect	Verbal Mood	Sentential Mood
Qatal	0	Perfective/Perfect	Realis	0
Weqatal	0	Perfective	Irrealis	0
Yiqtol	0	0	Irrealis	0
Wayyiqtol	Past	Perfective	Realis	0
Participle	0	Imperfective	Realis	0
Imperative	0	0	Imperative	Imperative

5.1 Summary of Findings and Suggestions for Further Research

My study of the prophets has led to several significant conclusions about the finite forms. In general, these conclusions could be strengthened by an in-depth study of a wider corpus with a variety of genres. While the prophets actually do have a variety of embedded

⁹⁹ I call the jussive, imperative, and cohortative paradigm the “Imperative paradigm” for short because I believe they have the same semantic value, and the traditional label of the “volitive forms” is inaccurate.

discourse types, applying the proposed framework to narrative, law, and poetry would undoubtedly be helpful in confirming or disconfirming my own findings.

With regard to the specific finite forms, QATAL was seen to be polysemous for perfective and perfect aspect. Although perfect aspect was found more frequently than perfective, it is admittedly very difficult to tell the difference between a past perfective and a present perfect because the TSit is the same in both. More research could be done in a larger corpus on these frequencies, and looking at these counts in books written during different time periods could help to establish which meaning is more common at different stages of QATAL's development. Only 3 out of the 5 uses of the perfect were found for QATAL in my corpus, so the other two varieties (the universal perfect and perfect of recent past) need more attention in a larger corpus. For perfective aspect, QATAL did not seem to undergo aspectual coercion when combining with atelic predicates, but this was a tentative conclusion based on a paucity of data. This needs to be investigated in a much larger corpus.

WEQATAL's range of uses is not as debated as some of the other forms. My conclusion for its meaning is very similar to Cook's: it is an irrealis-perfective form. Whether or not it is a distinct form from QATAL or is a syntactic variation of it still needs more attention, and my study was unable to shed any light on this issue. However, my proposal that WEQATAL undergoes aspectual coercion (like QATAL and WAYYIQTOL) has not been suggested before (to my knowledge), and this needs more attention. In particular, a much larger number of atelic predicates that are used with WEQATAL need to be analyzed to determine whether the semantic meaning of the words themselves account for the ingressive/complexive reading, or whether it is the aspectual restrictions of the form.

YIQTOL is likely the most controversial of the finite forms in the BHVS. My study has led me to several conclusions that had not been previously suggested. First, while many studies either dismiss YIQTOL's imperfective functions or label it imperfective because of those functions, I have proposed that YIQTOL does not actually have an aspectual value. It takes its aspectual interpretation from the telicity of the predicate plus the context, just as QATAL gets a default temporal interpretation as a tenseless perfective form. Again, this

claim would benefit from a more detailed analysis of many more YIQTOL verbs when they combine with atelic and telic predicates. I also concluded that YIQTOL is an irrealis form that encodes unactualized situations. While YIQTOL's range of functions is remarkably similar to other irrealis forms, it could be useful to reevaluate the list of functions listed in the standard grammars against the backdrop of the functions of other irrealis forms, particularly those listed in Cristofaro (2012).

Like many other studies, I concluded that WAYYIQTOL is a past tense form. While Hatav had already suggested that it undergoes aspectual coercion (and I also found this to be the case), this claim could be investigated more just like the other forms for which aspectual coercion was proposed.

When viewing the larger discourse, my study produced two findings that are especially significant. First, the prophets often use FDD to speak from a future perspective as a rhetorical effect. Although something like this has been proposed already (Hatav 2011), it is often only assumed that individual forms are used from a future perspective (such as the so-called “prophetic perfect”), but my analysis shows that any form can be used in these discourses because they are entire *discourses* set in future time. While I have noted all of the occurrences of this phenomenon in my corpus, it is common in the prophets, and a more detailed analysis of all of its occurrences in the prophets would be useful.

Second, it was shown that every temporal relationship between clauses is possible with each of the forms. While WAYYIQTOL, commonly called the “narrative tense”, is certainly more common in a Narration relation, it is not limited to this relationship. Likewise, QATAL and YIQTOL, though often found in Elaboration or Explanation relationships, may be used in a Narration relationship. Thus, when considering temporal relationships between clauses, we should speak of tendencies rather than rules. These tendencies could receive more attention by a statistical analysis of temporal relationships in a variety of different corpuses and with various adjacent forms.

5.2 Pedagogical Implications

In the first chapter, I stressed the importance of making theoretical studies like my own applicable in a classroom setting. There are two primary ways my study could be of benefit to those who are actually teaching or learning BH in the classroom.

First, I hope that my theoretical chapter demonstrates that a firm grasp of the general meaning of TAM and discourse are essential knowledge for teachers. This is particularly true in BH, which has a plethora of definitions for these common linguistic terms, many of which are simply inaccurate. The category of modality is a great example of this. In order to claim that YIQTOL is “modal”, one must begin with a clearly defined definition of “modality”, and unfortunately, this is often not what happens in studies on the BHVS. Some sort of primer on TAM categories must be given to students if they are going to deal with the semantics of the forms.

Second, when it comes to actually interpreting what a specific verb form means in a particular context, the function of that form should be explainable by how the invariable meaning interacts with the context, both linguistic and extra-linguistic. There are two implications of this. First, if we are starting with a presupposed meaning of a form (and we must be to some extent), there are only so many interpretations that are possible. For example, QATAL cannot have an imperfective interpretation because it is a perfective form (assuming this meaning/label is correct). If the context seems to require such an interpretation, we might be reading the context wrongly, so we must at least rethink the interpretation of the passage as a whole (or the invariable meaning we assigned to the form).

On the other hand, the adept student should be able to see how the context of a certain form yields one of the plausible functions of that form. For example, when there is a large TT created by a general truth being stated in a null-copula clause, it should be no surprise that a following YIQTOL would be interpreted habitually. This is not to say that this conclusion would always hold, but there always has to be some reason in the context for assigning a certain function to a form. So pedagogically, students must learn what functions are possible for a form because of its invariable meaning, and they must be taught how the

context can combine with the invariable meaning to yield one of those functions. Doing both will create better and more faithful interpreters, exegetes, and translators of the Hebrew Bible.

APPENDIX 1: CORPUS DATA

The individual categorizations of the verbs listed below are based on the tense and aspect chart. If this time relationship is different than the relationship between the TSit and time of writing, the latter time relationship is in parentheses and is underlined (see for example Zechariah 3:18). I have analyzed every verse except for Micah 2:4, which I took out because of the many and varied emendations that have been proposed for it. The counts not included in the tables are those I consider to be particularly ambiguous or could be considered irrealis (thus, I have excluded modals, questions, conditions, etc.).

1. Qatal

Time Reference		
Past	Present	Future
59 + (13)	43	23

Aspect	Tense		
	Past	Present	Future
Perfective	33	X	1?
Imperfective			
Habitual	1	19	
Perfect	3	68	2 with 1?

Past-perfective

A1:1a: הָיָה hāyā ^h ‘was’	A1:1b: חָזָה ḥāzā ^h ‘saw’	A1:11c: וְשִׁחַת wəšihēt ‘ruined’
A1:11e: שָׁמְרָה šəmārā ^h ‘kept’	A2:4e: הָלַךְ hālkû ‘walked’	A2:9a: הִשְׁמַדְתִּי hišmādtî ‘destroyed’
A2:10a: הֵעֲלֵתִי he‘ēlētî ‘brought’	A2:12b: צִוִּיתִם šiwwîtem ‘commanded’	A3:1c: הֵעֲלֵתִי he‘ēlētî ‘brought up’
A4:6a: נָתַתִּי nātattî ‘gave’	A4:7a: מָנַעְתִּי mānā‘tî ‘withheld’	A4:9a: הִכְּתִי hikkētî ‘struck’
A4:10a: שָׁלַחְתִּי šillāhtî ‘sent’	A4:10b: הָרַגְתִּי hārāgtî ‘killed’	A4:11a: הָפַקְתִּי hāpāktî ‘overthrew’
A7:1a: הִרְאֵנִי hir‘ānî ‘showed’	A7:3a: נִחַם niḥam ‘relented’	A7:7a: הִרְאֵנִי hir‘ānî ‘showed’
A8:1a הִרְאֵנִי hir‘ānî ‘showed’	A9:1a: רָאִיתִי rā‘îṭî ‘saw’	A9:7a: הֵעֲלֵתִי he‘ēlētî ‘brought’
M1:1a הָיָה hāyā ^h ‘was’	M1:1b חָזָה ḥāzā ^h ‘saw’	M6:4a: הֵעֲלֵתִיָּהּ he‘ēlīṭīkā ‘brought’
M6:4b: פָּדִיתִיָּהּ pəḏīṭīkā ‘ransomed’	M6:5b: יָעַן yyā‘as ‘planned’	M6:5c: עָנָה ‘ānā ^h ‘answered’
M7:20b (present perfect?): נִשְׁבַּעְתָּ nišbā‘tā ‘swore’	Z1:1a הָיָה hāyā ^h ‘was’	Z2:8b: חָרַפוּ ḥērṗû ‘reproached’
Z2:10a: חָרַפוּ ḥērṗû ‘reproached’	Z3:7e: פָּקַדְתִּי pāqādtî ‘threatened’	Z3:7f: הִשְׁכִּימוּ hiškîmû ‘rose early’
Z3:7g: הִשְׁחִיתוּ hišḥîṭû ‘corrupted’	Z3:18a: (Future) אָסַפְתִּי ‘āsāptî ‘gathered’	Z3:18b (Future) הָיוּ hāyû ‘were’

Future-perfective

M6:13a (could be present performative):
הַחֵלֵתִי heḥēlētî ‘will strike’

Past-habitual

A5:25a
הִגַּגְשְׁתֶּם hiḡgaštem ‘brought’

Present-habitual

A5:7a הִנִּיחַו hinnîḥû ‘throw’	A5:8a הֶחְשִׁיךְ heḥšîḵ ‘turn dark’	A5:12b הִטָּו hitṭû ‘turn aside’
A6:5a חָשַׁב hāšḇû ‘invent’	M3:3a (or present perfect?) אָכַל אַלֹּא āḵlû ‘eat’	M3:3b (or present perfect?) הִפְשִׁיטוּ hipššîṭû ‘strip’
M3:3c (or present perfect?) פָּצַחַו pišṣēḥû ‘break’	M3:3d (or present perfect?) וּפָרְשׁוּ ûpārśû ‘chop’	M6:12b דִּבְּבָרוּ dibbərû ‘speak’
Z1:6b בִּיקְשׁוּ biqšû ‘seek’	Z1:6c דָּרְשׁוּהוּ dərāšuhû ‘inquire’	Z2:3b פָּעַלְו pā‘ālû ‘do’
Z3:2a שָׁמְעָה šām‘ā ^h ‘listen’	Z3:2b לָקַחְהָ lāqḥā ^h ‘take’	Z3:2d קָרְבָה qārēḇā ^h ‘approach’
Z3:3a גָּרְמוּ ḡārmû ‘spare’	Z3:4a חִלְלֹו hīlləlû ‘profane’	Z3:4b חָמְסוּ ḥāmsû ‘treat violently’
Z3:5c נִעְדָר ne‘dār ‘fail’		

Past-perfect

A5:26b (or past-perfective?) עָשִׂיתֶם ʿāśîtem ‘had made’	A7:2b כָּלָה killā ^h ‘had finished’	A7:6a נָחַם niḥam ‘had relented’
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Present-perfect

A2:4c (<u>Past</u>) שָׁמְרוּ šāmārû ‘have kept’	A3:1b (<u>Past</u>); דִּבֶּר dibber ‘has spoken’	A3:2a (<u>Past</u>) יָדָעְתִּי yādāʿtî ‘have known’
A3:3b נִוָּעְדוּ nōʿādû ‘have met’	A3:4c לָכַד lākād ‘has caught’	A3:6d עָשָׂה ʿāsā ^h ‘has done’
A3:7b גָּלָה gālā ^h ‘has revealed’	A3:8a שָׁאָג šāʾāg ‘has roared’	A3:8c דִּבֶּר dibber ‘has spoken’
A3:10a יָדְעוּ yādū ‘know’	A4:2a (<u>Past</u>) נִשְׁבַּע nišbaʿ ‘has sworn’	A4:5c אָהַבְתֶּם ʾāhabtem ‘love’
A5:2a נָפְלָה nāplā ^h ‘has fallen’	A5:2c נִטְּשָׁה niṭṭəšā ^h ‘forsaken’	A5:10a שָׂנְאוּ sānʾû ‘hate’
A5:11b (or future-perfective?) (<u>Future</u>) בְּנִיתֶם bənîtem ‘will have built’	A5:11d (or future-perfective?) (<u>Future</u>) נִטְעַתֶּם nəṭaʿtem ‘will have planted’	A5:12a יָדָעְתִּי yādāʿtî ‘know’
A5:14d (<u>Past</u>) אָמַרְתֶּם ʾāmartem ‘have said’	A5:21a שָׂנְאָתִי sānēʿtî ‘hate’	A5:21b מָאֲסִיתִי māʾastî ‘despise’
A6:6b נִחְלוּ nehlu ‘grieved’	A6:8c שָׂנְאָתִי sānēʿtî ‘hate’	A6:12c (or present habitual?) (<u>Past</u>) הִפְכֶּתֶם hăpaktē ‘have turned’
A6:13a (<u>Past</u>) לָקַחְנוּ lāqāḥnû ‘have taken’	A7:10b (<u>Past</u>) קָשָׁר qāšar ‘has bound’	A8:2e (<u>Past</u>) בָּא bāʾ ‘has come’
A8:3b (<u>Future</u>)	A9:12b (maybe habitual?) נִקְרָא niqrāʾ ‘are called’	M1:9a (<u>Future</u>) בָּאָה bāʾā ^h ‘has come’

הִשְׁלִיךְ hišlīk ‘have thrown’		
M1:9b (<u>Future</u>) נָגַע nāga ^c ‘has struck’	M1:12b (<u>Future</u>) יָרַד yārad ‘has come down’	M1:13b נִמְצָאוּ nimṣəʔû ‘was found’
M1:16d (<u>Future</u>) גָּלוּ gālû ‘have gone into exile’	M2:7a הַקָּצָר ḥāqāṣar ‘short’	M2:10c טָמְאָה ṭām ^a h ‘uncleanness’
M2:13a (<u>Future</u>) עָלָה ʿālā ^h ‘has gone up’	M2:13b (<u>Future</u>) פָּרְצוּ pāršû ‘have broken through’	M3:4d (<u>Past</u>) הִרְעוּ hērēʿû ‘have made evil’
M3:8a מָלֵאתִי mālēʾtî ‘am full’	M4:4b (<u>Past</u>) דִּבֶּר dibbēr ‘has spoken’	M4:6c (<u>Past</u>) הִרְעִיתִי hārēʿōtî ‘have afflicted’
M4:9b (<u>Past</u>) אָבַד ʾābād ‘has perished’	M4:9c (<u>Past</u>) הֶחֱזִיקוּ heḥēzîqēk ‘has seized’	M4:11a (<u>Future</u>) נֶאֱסָפוּ neʿespû ‘are assembled’
M4:12a (<u>Future</u>) יָדְעוּ yād ^c û ‘know’	M4:12b (<u>Future</u>) הֵבִינִי hēbînû ‘understand’	M4:12c (<u>Future</u>) קִבְּצָם qibbəṣām ‘has gathered’
M4:14b (<u>Future</u>) שָׂם sāṃ ‘has put’	M5:2b (<u>Future</u>) יָלְדָה yālādā ^h ‘has given birth’	M6:3a (<u>Past</u>) עָשִׂיתִי ʿāsītî ‘have done’
M6:3b (<u>Past</u>) הִלָּאתִי helʾētīkā ‘have wearied’	M6:8a (<u>Past</u>) הִגִּיד higgîd ‘has told’	M6:12a מָלֵאוּ mālʾû ‘are full’
M7:1a (<u>Past</u>) הָיִיתִי hāyītî ‘have become’	M7:2a (<u>Past</u>) אָבַד ʾābad ‘has perished’	M7:4a (<u>Past</u>) בָּאָה bāʾā ^h ‘has come’
M7:9b (<u>Past</u>) הִטָּאתִי ḥātāʾtî ‘have sinned’	M7:18a הֶחֱזִיק heḥēzîq ‘hold’	Z1:7a (<u>Past</u>) הֵכִין hēkîn ‘has prepared’

Z1:7b (Past) שִׁקְדִישׁ hiqdîš ‘has consecrated’	Z1:11b (Future) נִדְמָה nidmā ^h ‘are destroyed’	Z1:11c (Future) נִכְרְתוּ nikrētû ‘are cut off’
Z2:8a (Past) שָׁמָעְתִּי šāmá [‘] tî ‘have heard’	Z2:15a (Future) הָיְתָה hāyṭā ^h ‘has become’	Z3:2c בָּטַחְהָ bāṭāḥā ^h ‘trusts’
Z3:15a (Future) הֶסִיר hēsîr ‘has taken away’	Z3:15b (Future) פָּנָה pinnā ^h ‘has cleared away’	

Future-perfect

A9:15c (or present?) נָתַתִּי nātattî ‘will have given’	Z2:11b רָזָה rāzā ^h ‘will have famished’	Z2:14d עָרָה ‘ērā ^h ‘will have laid bare’
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Ambiguous between present perfect and past perfective (all past TSit—in parentheses in the QATAL tense and aspect chart)

A1:9c זָכַר zākṛû ‘remembered/has remembered’	A4:6b שָׁבְתָם šabtem ‘returned/have returned’	A4:8c שָׁבְתָם šabtem ‘returned/have returned’
A4:9c שָׁבְתָם šabtem ‘returned/have returned’	A4:10d שָׁבְתָם šabtem ‘returned/have returned’	A4:11c שָׁבְתָם šabtem ‘returned/have returned’
M1:7d קִבְּצָה qibbāšā ^h ‘gathered/has gathered’	Z3:6a הִכְרַתִּי hikrattî ‘cut off/have cut off’	Z3:6b נָשָׁמוּ nāšāmmû ‘became ruins/are ruined’
Z3:6c הֵחֲרַבְתִּי heḥērabtî ‘made desolate/have made desolate’	Z3:6d נִשְׁדָּו nišdû ‘laid waste/have laid waste’	Z3:7a אָמַרְתִּי āmartî ‘said/have said’
Z3:11b		

פָּשַׁעַת pāšāʿat 'rebelled/have rebelled'		
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Quote formula (all with אָמַר ʾamar 'said' unless otherwise marked): Amos 1:3a, 5d, 6a, 8d, 9a, 11a, 13a, 15d; 2:1a, 3c, 4a, 6a; 3:11a, 12a; 5:3a, 4a, 16a, 17b, 27b; 6:8a (נִשְׁבַּע nišbaʿ 'swears/has sworn'); 8:7a (נִשְׁבַּע nišbaʿ 'swears/has sworn'); 7:3c, 6c, 11a, 17a; 9:15d; M2:3; 3:5a; Z3:20c

Ambiguous: Amos 7:2a (וְהָיָה wəhāyāh 'was/will be'—either WEQATAL or QATAL); A9:6a (יִסְדָּהּ yəsāḏāh 'has founded/founds'—present perfect or habitual depending on the referent of 'vaults'); M1:12a (חָלָה ḥālāh 'waits/waited'—habitual with current writhing, or past perfective); M2:11a (כִּזְזֵב kizzēb 'lie'—hypothetical situation, which could be past perfective or present habitual); M5:7b (עָבַר ʿābar 'were to pass through/passes through/has passed through'—hypothetical situation could be counterfactual, habitual, or present perfect) M5:14b (שָׁמַעְו šāmēʿû 'have not listened/do not listen'—could be either present perfect or habitual); M7:2 (אָבַד ʾābad 'perish/perished/have perished'—could be habitual, past perfective, or present perfect); M7:8b-c (נָפְלָתִי nāpālî 'fall/had fallen' and קָמָתִי qāmî 'rise/have risen'—could be two habituales or two perfects with the former past and the latter present); Z2:2a (עָבַר ʿābar 'passes/has passed'—habitual or perfect);

Textual Issue: M1:10c (הִתְפַּלֵּשְׁתִּי hitpallāštî 'rolled yourself'—Kethib; הִתְפַּלֵּשִׁי hitpallāšî 'roll yourself'—Qere); M1:11b (יֵצֵא yāšʾāh 'go out'); M2:4; M4:1c (וְנִשָּׂא wəniśšāʾ 'will have lifted up/will lift up' could be QATAL or WEQATAL); M6:9d (יַעֲדָה yəʿādāh 'appointed'—NET Bible notes has emended to take out the verb); Z2:1c (נִכְסָפְךָ nikṣāp 'uncertain of root meaning');

2. Weqatal

Time Reference		
Past	Present	Future
2	8	135

Aspect	Tense		
	Past	Present	Future
Perfective			124
Imperfective			
Habitual	2	6 with 2?	11
Perfect			

Future-perfective

A1:2d וְאָבִלּוּ wəʔāblû ‘will dry up’	A1:2e וְיָבֵשׁ wəyābēš ‘will be made dry’	A1:4a וְשִׁלְחָתִי wəšillāhtî ‘will send’
A1:4b וְאָכְלָהּ wəʔākḷāḥ ‘will devour’	A1:5a וְשִׁבְרָתִי wəšābartî ‘will break’	A1:5b וְהִכְרַתִּי wəhikrattî ‘will cut off’
A1:5c וְגָלּוּ wəgālû ‘will go into exile’	A1:7a וְשִׁלְחָתִי wəšillāhtî ‘will send’	A1:7b וְאָכְלָהּ wəʔākḷāḥ ‘will devour’
A1:8a וְהִכְרַתִּי wəhikrattî ‘will cut off’	A1:8b וְהִשְׁבֹּתִי wəhšîbôtî ‘will turn’	A1:8c וְאָבְדוּ wəʔābdû ‘will perish’
A1:10a וְשִׁלְחָתִי wəšillāhtî ‘will send’	A1:10b וְאָכְלָהּ wəʔākḷāḥ ‘will devour’	A1:12a וְשִׁלְחָתִי wəšillāhtî ‘will send’

A1:12b וְאָכְלָהּ wəʾāklā ^h ‘will devour’	A1:14a וְהִצִּיטִי wəhiṣṣattî ‘will kindle’	A1:14b וְאָכְלָהּ wəʾāklā ^h ‘will devour’
A1:15a וְהָלַךְ wəhālak ‘will go’	A2:2a וְשִׁלַּחְתִּי wəšillāḥtî ‘will send’	A2:2b וְאָכְלָהּ wəʾāklā ^h ‘will devour’
A2:2c וּמֵת ūmēt ‘will die’	A2:3a וְהִכְרַתִּי wəhikrattî ‘will cut off’	A2:5a וְשִׁלַּחְתִּי wəšillāḥtî ‘will send’
A2:5b וְאָכְלָהּ wəʾāklā ^h ‘will devour’	A2:14a וְאָבַד wəʾābad ‘will perish’	A3:11b וְהוֹרִיד wəhōrīd ‘will bring down’
A3:11c וְנָבְזוּ wənābōzzû ‘will be plundered’	A3:14a וְיַפְקִדְתִּי ūpāqadtî ‘will punish’	A3:14b וְנִגְדָּעוּ wəniḡdāʿû ‘will be cut’
A3:14c וְנָפְלוּ wənāplû ‘will fall’	A3:15a וְהִכְרַתִּי wəhikkētî ‘will destroy’	A3:15b וְאָבַדוּ wəʾābdû ‘will perish’
A3:15c וְסָפּוּ wəsāpû ‘will come to an end’	A4:2c וְנִשָּׂא wəniśśāʾ ‘will lift up’	A4:3b וְהִשְׁלַכְתִּנָּה wəhišlaktēnā ^h ‘will cast out’
A5:16c וְקָרָאָו wəqārʾû ‘will call’	A5:27a וְהִגְלִיטִי wəhiḡlētî ‘will send into exile’	A6:7b וְסָרָהּ wəsār ‘will pass away’
A6:8d וְהִסְגִּירְתִּי wəhisgartî ‘will deliver up’	A6:10a וְנִשְׂאוּ ūnəśāʾô ‘will pick up’	A6:10b וְאָמַר wəʾāmar ‘will say’
A6:10c וְאָמַר wəʾāmar ‘will say’	A6:10d וְאָמַר wəʾāmar ‘will say’	A6:11a וְהִכָּהּ wəhikkā ^h ‘will strike’

A6:14a וְלָחַצוּ wəḷāḥṣû ‘will oppress’	A7:9a וְנָשָׁמוּ wənāššammû ‘will be made desolate;	A7:9c וְקָמָתִי wəqamtî ‘will rise up’
A8:3a וְהִלִּילוּ wəhêlîlû ‘will wail’	A8:9b וְהִבֵּאתִי wəhēbēʾtî ‘will cause to set’	A8:9c וְהַחֲשִׁכָהּ wəhaḥṣaktî ‘will darken’
A8:10a וְהִפָּכְתִּי wəhāpaktî ‘will turn’	A8:10b וְהֵעֲלֵתִי wəhaʿălêtî ‘will bring up’	A8:10c וְשָׁמַתִּיהָ wəśamtîhā ‘will make’
A8:11b וְהִשְׁלַחְתִּי wəhišlaḥtî ‘will send’	A8:12a וְנָעוּ wənāʿû ‘will wander’	A8:14b וְנָפְלוּ wənāplû ‘will fall’
A9:8a וְהִשְׁמַדְתִּי wəhišmadtî ‘will destroy’	A9:9a וְהִנְעוֹתִי wəhānīʿôtî ‘will shake’	A9:11b וְגָדַרְתִּי wəgādartî ‘will wall up’
A9:11d וְבִנִּיתִיהָ ūbənîṭîhā ‘will build’	A9:13a וְנִגְּשׁ wəniggaš ‘will draw near’	A9:13b (parallel to lexical ingressive) וְהִטְּיָפוּ wəhittîṭpû ‘will drip’
A9:14a וְשָׁבְתִי wəšabtî ‘will return’	A9:14b וְבָנוּ ūbānû ‘will build’	A9:15a וְנִטְעָתִים ūnəṭaʿtîm ‘will plant’
M1:3a וְיָרַד wəyārad ‘will come down’	M1:3b וְדָרַךְ wədārak ‘will tread upon’	M1:4a וְנָמַסּוּ wənāmāssû ‘will melt’
M1:6a וְשָׁמַתִּי wəśamtî ‘will make’	M1:6b וְהִגְרִיתִי wəhiggartî ‘will hurl down’	M3:6a (ingressive?) וְחָשְׁכָהּ wəḥāšḱā ^h ‘will darken’
M3:6b וְבָאָה ūbāʾā ^h ‘will set’	M3:6c וְקָדַר wəqādar ‘will darken’	M3:7a וְבִשּׁוּ ūbōšû ‘will be put to shame’

M3:7b וְהָפְרוּ wəḥāḫp̄rû ‘will become humiliated’	M3:7c וְעָטוּ wə‘āṭû ‘will cover’	M4:2a (go to the house?) וְהָלְכוּ wəḥālkû ‘will go’
M4:2b וְאָמְרוּ wə‘āmrû ‘will say’	M4:3c וְכַתְּתוּ wəkittəṭû ‘will beat’	M4:7a וְשָׁמְתִי wəśamtî ‘will make’
M4:7b (complexive or ingressive?) וּמָלַךְ ûmālak ‘will reign’	M4:8b וְבָאָה ūbā‘ā ^h ‘will come’	M4:10d וְשָׁכַנְתָּ wəśākant ‘will dwell’
M4:10e וְבָאָת ūbā‘ṭ ‘will come’	M4:13e וְהִדְקוֹת wəḥāḏiqqôṭ ‘will pulverize’	M4:13f וְהִחְרַמְתִּי wəḥaḥāramtî ‘will devote for destruction’
M5:3a וְעָמַד wə‘āmad ‘will arise’	M5:3b וְרָעָה wəra‘ā ^h ‘will shepherd’	M5:3c וְיִשְׁבּוּ wəyāśābû ‘will begin to dwell securely’
M5:4a (ingressive?) וְהָיָה wəḥāyā ^h ‘will be’	M5:4d וְהִקְמֵנוּ wəḥāqēmōnû ‘will raise’	M5:5b וְהִצִּיל wəhiṣṣîl ‘will deliver’
M5:5a (complexive?) וְרָעָה wəra‘û ‘will shepherd’	M5:6a (ingressive?) וְהָיָה wəḥāyā ^h ‘will be’	M5:7a (ingressive?) וְהָיָה wəḥāyā ^h ‘will be’
M5:9b וְהִכְרַתִּי wəḥikrattî ‘will cut’	M5:9c וְהָאֲבַדְתִּי wəha‘ābadtî ‘will destroy’	M5:10a וְהִכְרַתִּי wəḥikrattî ‘will cut off’
M5:10b וְהִרְסֵתִי wəḥārastî ‘will throw down’	M5:11a וְהִכְרַתִּי wəḥikrattî ‘will cut off’	M5:12a וְהִכְרַתִּי wəḥikrattî ‘will cut off’
M5:13a וְנִתְּשָׁתִי wənāṭaštî ‘will root up’	M5:13b וְהִשְׁמַדְתִּי wəḥišmadtî ‘will destroy’	M5:14a וְעָשִׂיתִי wə‘āsîṭî ‘will do’

M7:9d וְעָשָׂה wəʿāsā ^h ‘will do’	M7:13a וְהָיְתָה wəhāytā ^h ‘will become’	Z1:3c וְהִכְרַתִּי wəhikrattî ‘will cut off’
Z1:4a וְנָתַתִּי wənātî ^{tî} ‘will stretch out’	Z1:4b וְהִכְרַתִּי wəhikrattî ‘will cut off’	Z1:8b וְיַכְרִיתִי ūpāqadtî ‘will punish’
Z1:9a וְיַכְרִיתִי ūpāqadtî ‘will punish’	Z1:12c וְיַכְרִיתִי ūpāqadtî ‘will punish’	Z1:13a וְהָיְתָה wəhāyā ^h ‘will become’
Z1:17a וְהָצַרְתִּי wahāṣērōtî ‘will bring distress’	Z1:17b וְהָלַכְוּ wəhālkû ‘will begin to talk’	Z1:17d וְשִׁפַּךְ wəšuppak ‘will be poured out’
Z2:5a וְהָאֲבַדְתִּי wəhaʾābadtî ^k ‘will destroy’	Z2:6a וְהָיְתָה wəhāytā ^h ‘will become’	Z2:7a וְהָיְתָה wəhāyā ^h ‘will become’
Z2:7e וְשָׁב wəšāb ‘will turn away’	Z3:12a וְהִשְׁאַרְתִּי wəhišʾartî ‘will leave’	Z3:19a וְהוֹשַׁעְתִּי wəhōša ^{tî} ‘will save’
Z3:19c וְשָׁמַתִּי wəśamtîm ‘will make’		

Past-habitual

A4:7b וְהִמְטַרְתִּי wəhimṭartî ‘would make it rain’	A4:8a וְנָעוּ wənāʿû ‘would stagger’	
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Present-habitual

A6:1a וּבָאוּ ūbāʿû ‘come’	A8:14a וְאָמְרוּ wəʾāmrû ‘say’	M2:2a וְחָמְדוּ wəḥāmdû ‘desire’
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M2:2b וְגָזַלְוּ wəḡāzālû ‘take away’	M2:2c וְנָשָׂאוּ wənāśā’û ‘bear away’	M2:2d וְעָשָׂקוּ wə‘āšqû ‘oppress’
M3:5b (unmarked conditional?) וְקָרָאוּ wəqār’û ‘call’	M3:5d (unmarked conditional?) וְקִדְּשׁוּ wəqiddəšû ‘consecrate’	

Future-habitual

A9:14c וְיָשְׁבוּ wəyāšābû ‘will inhabit’	A9:14d וְנִטְעוּ wənāt’û ‘will plant’	A9:14e וְשָׁתוּ wəšātû ‘will drink’
A9:14f וְעָשָׂה wə‘āsû ‘will make’	A9:14g וְאָכַל wə‘āklû ‘will eat’	M4:1d וְנָהַר wənāhārû ‘will flow’
M4:3a וְשָׁפַט wəšāpāt ‘will judge’	M4:3b וְהוֹכִיחַ wəhōkî ^{ah} ‘will decide’	M4:4a וְיָשְׁבוּ wəyāšbû ‘will sit’
Z3:12b וְחָסוּ wəḥāsû ‘will seek refuge’	Z3:13e וְרָבְצוּ wərābšû ‘will lie down’	

Textual issues:

A5:26a (וְנִשְׂאָתֶם ūnəśā’tem ‘will lift up/have lifted up/lift up’—could be WEQATAL or QATAL); M2:4; A8:8e (וְנִשְׁקָעָה wənišqə‘ā^h ‘will sink’—future-perfective question, Qere)

Ambiguous:

A7:4c (וְאָכַלָּה wə‘āklā^h ‘would devour/devoured’—could be QATAL or WEQATAL);
A9:5b (וְאָבַל wə‘ābal ‘will mourn’—present habitual or unmarked conditional); A9:5c

(וְעָלָהּ wəʿālāh ‘will rise’—present habitual or unmarked conditional); A9:5d (וְשָׁקַע wəšāqāh ‘will sink’—present habitual or unmarked conditional); Z1:13b (וְבָנוּ ūbānū ‘will build/if they should build’—iterative future-perfective, habitual-future, or unmarked conditional); Z1:13d (וְנִטְעוּ wənāṭū ‘will plant/if they should plan’—iterative future-perfective, future-habitual, or unmarked conditional); Z2:14a (וְרָבַצוּ wərāḇṣū ‘will lie down’—future-habitual or iterative future-perfective)

Irrealis:

A5:19b (וּפָגַעוּ ūpāgāʿô ‘met’—perfective hypothetical situation), A5:19c (וָבָא ūbāʾ ‘came’—perfective hypothetical situation), A5:19d (וְסָמַךְ wəsāmāk ‘leaned’—perfective hypothetical situation), A5:19e (וְנִשְׁכּוּ ūnəšākô ‘bit’—perfective hypothetical situation); A9:3c (וְלָקַחְתִּים ūləqahṭîm ‘take’—perfective apodosis); A9:3f (וְנִשְׁכָּם ūnəšākām ‘will bite’—perfective apodosis); A9:4c (וְהָרַגְתִּם wahārāgāṭam ‘will kill’—perfective apodosis); A9:4d (וְשָׁמַתִּי wəśamtî ‘will set’—perfective apodosis); M2:11d (וְהָיָה wəhāyāh ‘would be’—apodosis); M5:7c (וְרָמַס wərāmas ‘would trample’—apodosis); M5:7d (וְטָרַף wəṭāraṭ ‘would tear’—apodosis); A5:6d (וְאָכְלָהּ wəʾāklāh ‘will devour’—coordinate to YIQTOL after consequence particle); A6:9c (וּמָתוּ wāmētū ‘will die’—apodosis of condition); A8:8b (וְאָבַל wəʾābal ‘will mourn’—future-perfective question); A8:8c (וְעָלָהּ wəʿālāh ‘will rise’—future-perfective question); A8:8d (וְנִגְרַשָּׁה wəniḡrāšāh ‘will be driven’—future-perfective question);

Discourse WEQATAL only for time (all initial וְהָיָה wəhāyāh ‘will be’):

A6:9a; A7:3a; A8:9a; M4:1a; M5:9a; Z1:8a; Z1:10a; Z1:12a

3. Wayyiqtol

Time Reference		
Past	Present	Future
30		3

Aspect	Tense		
	Past	Present	Future
Perfective	31		
Imperfective			
Habitual	2		
Perfect			

Past-perfective

A1:2a וַיֹּאמֶר wayyōmar ‘said’	A1:11d (probably complexive?) וַיִּטֹּר wayyitrōp ‘tore’	A2:4d וַיִּתְּעוּם wayyat’ûm ‘led astray’
A2:9b וַאֲשַׁמֵּד wā’ašmîd ‘destroyed’	A2:10b וַאֲוִלֵּךְ wā’ôlēk ‘led’	A2:12a וַתַּשְׁקוּ wattašqu ‘made drink’
A4:10c וַאֲעֲלָה wā’a‘āle ^h ‘brought up’	A4:11b וַתִּהְיוּ wattihyû ‘were’	A7:2c וַאֲמַר wā’ōmar ‘said’
A7:4b וַתֹּאכַל wattōkal ‘devoured’	A7:5a וַאֲמַר wā’ōmar ‘said’	A7:8a וַיֹּאמֶר wayyōmer ‘said’
A7:8b וַאֲמַר wā’ōmar ‘said’	A7:8c וַיֹּאמֶר wayyōmer ‘said’	A7:10a וַיִּשְׁלַח wayyišlah ‘sent’
A7:12a וַיֹּאמֶר wayyōmer ‘said’	A7:14a וַיַּעַן wayyā’an ‘answered’	A7:14b וַיֹּאמֶר wayyōmer ‘said’
A7:15a	A7:15b	A8:2a

וַיִּקַּחנִי wayyiqqāḥēnî 'took'	וַיֹּמַר wayyōmer 'said'	וַיֹּמַר wayyōmer 'said'
A8:2b וַאֲמַר wā'ōmar 'said'	A8:2c וַיֹּמַר wayyōmer 'said'	A9:1b וַיֹּמַר wayyōmer 'said'
M2:13c (Future) וַיַּעְבֹּרֵי wayya'ābōrû 'crossed over'	M2:13d (Future) וַיֵּצֵאוּ wayyēš'û 'went out'	M2:13e (Future) וַיַּעְבֹּר wayya'ābōr 'crossed over'
M3:1a וַאֲמַר wā'ōmar 'said'	M6:4c וַאֲשַׁלַּח wā'ešlah 'sent'	Z2:8c וַיַּגְדִּילוּ wayyagđîlû 'made great'
Z2:10b וַיַּגְדִּילוּ wayyagđîlû 'made great'		

Past-habitual

A2:11a וַאֲקִים wā'āqîm 'raised up'	M6:16b וַתֵּלֶכְוַי wattēlkû 'walked'	
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Ambiguous: A5:8b (וַיִּשְׁפֹּךְ wayyišpākēm 'melted/melts'—present habitual or past perfective; could be “the one who, calling to the waters of the sea, poured/pours them out upon the face of the earth); 9:6b (וַיִּשְׁפֹּךְ wayyišpākēm 'melted/melts'—present habitual or past perfective; could be “the one who, calling to the waters of the sea, poured/pours them out upon the face of the earth); A6:3a (וַתִּגְשֵׁן wattaggîšûn 'brought near/brings near'—present habitual or past perfective; could be “the one who, pushing the day of disaster, brought/brings near a seat of violence); A9:5a (וַתֹּמַג wattāmôg 'melted/melts'—present habitual, past perfective, or unmarked conditional; could be “the one who, touching the earth, made/makes it melt”)

Textual Issue:

M7:3b (וַיַּעֲבֹתוּהָ wayəʿabbəṭûhā ‘weave’—LXX has future and meaning of the root is uncertain)

4. Yiqtol

Time Reference		
Past	Present	Future
6	25	164

Aspect	Tense		
	Past	Present	Future
Perfective			120
Imperfective			19
Habitual	6	25	25
Perfect			

Perfective-future

A1:3b אָשִׁיבֶנּוּ ʾāšîḇennû ‘will bring back’	A1:6b אָשִׁיבֶנּוּ ʾāšîḇennû ‘will bring back’	A1:9b אָשִׁיבֶנּוּ ʾāšîḇennû ‘will bring back’
A1:11b אָשִׁיבֶנּוּ ʾāšîḇennû ‘will bring back’	A1:13b אָשִׁיבֶנּוּ ʾāšîḇennû ‘will bring back’	A2:1b אָשִׁיבֶנּוּ ʾāšîḇennû ‘will bring back’
A2:3b אֶהְרֹג eḥrôḡ ‘will kill’	A2:4b אָשִׁיבֶנּוּ ʾāšîḇennû ‘will bring back’	A2:6b אָשִׁיבֶנּוּ ʾāšîḇennû ‘will bring back’

A2:14b יַאֲמִץ yəʿammēš ‘will make strong’	A2:14c יַמְלִיץ yəmallēṭ ‘will deliver’	A2:15a יַעֲמֹד yaʿāmōd ‘will stand’
A2:15b, c יַמְלִיץ yəmallēṭ ‘will deliver’	A2:16a יָנוּס yānūs ‘will flee’	A3:2b אֶפְקֹד ʿepqōd ‘will punish’
A3:12c יִנְצָלוּ yinnāšlū ‘be rescued’	A4:3a תֵּשֶׁעַנָּה tēšēʿnā ^h ‘will go out’	A4:12a, b עֲשֶׂה ʿeʿšē ^h ‘will do’
A5:2b תוֹסִיף tōsîṭ ‘will add’	A5:3b תִּשְׁאֵר tašʿîr ‘will be left with’	A5:3c תִּשְׁאֵר tašʿîr ‘will be left with’
A5:5d יִגְלֶה yiḡle ^h ‘will go into exile’	A5:5e יִהְיֶה yihye ^h ‘will become’	A5:13a יִדָּם yiddōm ‘will be silent’
A5:16b יֹאמְרוּ yōʾmərū ‘will say’	A5:17a אֶעְבֹּר ʿeʿbōr ‘will pass through’	A6:7a יִגְלֵל yiḡlū ‘will go into exile’
A7:3b תִּהְיֶה tihye ^h ‘will happen’	A7:6b תִּהְיֶה tihye ^h ‘will happen’	A7:8d אוֹסִיף ʾōsîṭ ‘will add’
A7:9b יִחָרְבוּ yeḥērābū ‘will be ruined’	A7:11b יָמוּת yāmūt ‘will die’	A7:11c יִגְלֶה yiḡle ^h ‘will go into exile’
A7:17b תִּזְנֶה tizne ^h ‘will become a prostitute’	A7:17c יִפֹּל yippōlū ‘will fall’	A7:17d תִּחַלֵּק təḥullāq ‘will be divided’
A7:17e תָּמוּת tāmūt ‘will die’	A7:17f יִגְלֶה yiḡle ^h ‘will go into exile’	A8:2f אוֹסִיף ʾōsîṭ ‘will add’
A8:12c יִמְצָא yimšāʿū ‘will find’	A8:13a תִּתְעַלְפָּנָה titʿallaṗnā ^h ‘will faint’	A9:1e אֶהַרֵּג eḥērōḡ ‘will kill’
A9:8b	A9:10a	A9:10b

אֲשָׁמִיד ašmîd ‘will destroy’	יָמוּתוּ yāmûtû ‘will die’	תִּגְיֵשׁ taggîš ‘will bring near’
A9:10c וְתִקְדִּים wətaqdîm ‘will overtake’	A9:11a אֲקִים āqîm ‘will raise’	A9:11c אֲקִים āqîm ‘will raise’
A9:15b יִנְתָּשׁוּ ‘will be uprooted’	M1:4b יִתְבַּקֵּעַ yitbaqqā‘û ‘will split’	M1:6c אֲגַלֶּה āgalle ^h ‘will uncover’
M1:7a יִכָּרֶס yukkátû ‘will be crushed’	M1:7b יִשָּׂרֵפׁ yisšārṑû ‘will be burned’	M1:7c אֲשִׁים āśîm ‘will make’
M1:7e יָשׁוּבוּ yāšûbû ‘will return’	M1:11c יִקַּח yiqqaḥ ‘will take’	M1:14a תִּתֶּנִּי tittēnî ‘will give’
M1:15a אָבִי ābî ‘will bring’	M1:15b יָבוֹא yābô‘ ‘will come’	M2:12a אֲאַסְּפׁ e‘əsōṑ ‘will gather’
M2:12b אֲאַקְבֹּשׁ āqabbēš ‘will gather’	M2:12c אֲשִׁימֶנּוּ āśîmēnnû ‘will set’	M3:12a תִּהְיֶה תֵּהָרֵשׁ tēḥārēš ‘will be plowed’
M3:12b תִּהְיֶה tihye ^h ‘will become’	M4:1b יִהְיֶה yihye ^h ‘will become’	M4:3d יִשָּׂא yis‘û ‘will lift’
M4:3e יִלְמְדוּן yilməḏûn ‘will train’	M4:8a תֵּבִיא תֵּהָא tē‘te ^h ‘will come’	M4:10c תֵּצֵא תֵּעָשׁׂי tēš‘î ‘will go’
M4:10f תִּנְּשָׁלִי tinnāšēlî ‘will be delivered’	M4:10g יִגְאָלֶךָ yiḡālēk ‘will redeem’	M4:13c אֲשִׁים āśîm ‘will make’
M4:13d אֲשִׁים āśîm ‘will make’	M5:1a יֵצֵא yēšē‘ ‘will go out’	M5:2a יִתֶּנֶּם yittēnēm ‘will give’
M5:2c	M5:4b יָבוֹא yābô‘ ‘will come’	M5:5c יָבוֹא yābô‘ ‘will come’

yəṣûbûn ‘will return’		
M5:12b תִּשְׁתַּחֲוֶה tīštahăwe ^h ‘will bow’	M6:9a יִקְרָא yiqrā ‘will call’	M6:16c תִּסָּאֵו tiśśā’û ‘will bear’
M7:9a אֶשָּׂא eśśā ‘will bear up’	M7:9c יָרִיב yārîb ‘will plead’	M7:9e יּוֹצִיֵנִי yôṣî’ēnî ‘will bring out’
M7:9f אֶרְאֶה er’e ^h ‘will see’	M7:10b וְתִכְסֶּה ūtəḵasséhā ‘will cover’	M7:10c תִּרְאֵנִי tir’e ^h nnā ‘will see’
M7:12a יָבֹא yābô ‘will come’	M7:15a אֶרְאֶנּוּ ar’ennû ‘will show’	M7:16c יָשִׁימוּ yāśîmû ‘will put’
M7:17a יִלְחֲכוּ yəlahăḵû ‘will lick up’	M7:19a יָשׁוּב yāšûb ‘will again’	M7:19b יֵרַחֲמֵנוּ yəraḥămēnû ‘will show compassion’
M7:19c יִכְבֹּשׁ yikbōš ‘will tread’	M7:19d וְתִשְׁלִיḵ wəṭašlîḵ ‘will throw’	M7:20a תִּתֵּן tittēn ‘will give’
Z1:12a אֶחַפֵּס aḥappēs ‘will search’	Z1:12d יַעֲטִיב yêṭîb ‘will do good’	Z1:12e יָרַע yārē ^{ac} ‘will do evil’
Z1:18b תֵּאָכַל tē’ākēl ‘will be eaten’	Z1:18c יַעֲשֶׂה ya’āse ^h ‘will make’	Z2:4a תִּהְיֶה tīhye ^h ‘will become’
Z2:4b יִגְרֹשׁוּהָ yəḡārsûhā ‘will drive out’	Z2:4c תִּתְּקַר tē’āqēr ‘will be destroyed’	Z2:9a תִּהְיֶה tīhye ^h ‘will become’
Z2:9b יִבְזֹזוּ yəbāzzûm ‘will plunder’	Z2:9c יִנְחָלוּ yinhālûm ‘will possess’	Z2:11b וְיִשְׁתַּחֲוּוּ wəyištahăwû ‘will bow down’
Z3:8b	Z3:9a	Z3:10a

tēʾākēl ‘will consume’	ehpōk ‘will change’	yôbilûn ‘will bring’
Z3:11a tēbôšî ‘will be put to shame’	Z3:11c ʾāsîr ‘will take away’	Z3:11d tôšîpî ‘will add’
Z3:16a yēʾāmēr ‘will be said’	Z3:17c yahărîš ‘will make quiet’	Z3:20a ʾābî ‘will bring’
Z3:20b ettēn ‘will give’		

Imperfective-future

A5:11c tēšbû ‘will dwell’	A5:23b ešmā ‘will listen’	A8:7b eškah ‘will forget’
A8:12b yəšôṭəṭû ‘will be wandering’	M2:5a yîhye ^h ‘will be’	M2:12d təhîménā ^h ‘will be thronging’
M5:3d yiḡdal ‘will be great’	M5:4c yidrōk ‘will be treading’	M5:5d yidrōk ‘will be treading’
M5:11b yîhyû ‘will be’	M7:16a yîrʾû ‘will see’	M7:16b wəyēbôšû ‘will be ashamed’
M7:16d teḥērašnā ^h ‘will be deaf’	M7:17b yîrgəzû ‘will come shaking’	M7:17c yîphādû ‘will be in dread’
M7:17d wəyîrʾû ‘will fear’	Z1:13c yēšēbû ‘will dwell’	Z3:17b yāšîs ‘will be exulting’

Z3:17d יָגִיל yāgîl ‘will be rejoicing’		
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Past-habitual

A4:7c אֶמְטִיר ʾamṭîr ‘would cause to rain’	A4:7d תִּמְטָר timmāṭēr ‘would be rained on’	A4:7e תִּמְטִיר tamṭîr ‘would have rain’
A4:7f תִּבָּשׁ tîbāš ‘would wither’	A4:8b יִשְׂבָּעוּ yisbāʿû ‘would be satisfied’	A4:9b יֹאכַל yōʾkal ‘would devour’

Present-habitual

A2:7a יָטוּ yaṭṭû ‘turn aside’	A2:7b יָלְכוּ yēlkû ‘go’	A2:8a יָטוּ yaṭṭû ‘stretch out’
A2:8b יִשְׁתּוּ yištû ‘drink’	A3:7a יַעֲשֶׂה yaʿāse ^h ‘do’	A5:9a יָבֹא yābô ‘comes’
A5:10b יִתְעַבּוּ yəṭāʿēbû ‘abhor’	A5:11a תִּקַּח tiqḥû ‘take’	A6:6a יִמְשָׁח yimšāḥû ‘anoint’
M2:1a יַעֲשֶׂה yaʿāsûhā ‘do’	M2:6b יַטִּיפוּן yaṭṭîpûn ‘preach’	M2:8a יָקוּמִם yaqômēm ‘rise’
M2:8b תִּפְשֹׁטוּן tapšîṭûn ‘strip off’	M2:9a תִּגְרָשׁוּן tēgāršûn ‘drive out’	M2:9b תִּקַּח tiqḥû ‘take’
M2:10d תִּהְבֵּל təḥabbēl ‘ruins’	M3:5c יִתֵּן yittēn ‘give’	M3:9b יַעֲקֹשׁוּ yəʿaqqēšû ‘make crooked’
M3:11a	M3:11b	M3:11c

יִשְׁפֹּטוּ yīšpōṭû ‘judge’	יֹרֵי yôrû ‘teach’	יִקְסֹמוּ yiqsômû ‘practice divination’
M3:11d יִשְׁעֲנוּ yīššā‘ēnû ‘lean’	M4:5a יֵלְכוּ yēlkû ‘walk’	M7:2b יֵאָרְבוּ ye‘ērōbû ‘lie in wait’
M7:2c יִצְוֹדוּ yāšûḏû ‘hunt’		

Future-habitual

A5:11e תִּשְׁתּוּ tīštû ‘will drink’	A5:21c אָרִיחַ ‘ārîḥ ‘will delight’	M2:3 תֵּלְכוּ tēlkû ‘will walk about’
M2:11b אֶתֵּן ‘attīp ‘will preach’	M4:2g תֵּצֵא tēšē ‘will go out’	M4:5b נֵלְךְ nēlēk ‘will walk’
M6:14a תֹּאכַל tō‘kal ‘will eat’	M6:14b תִּשְׂבָּע tīsbā‘ ‘will be satisfied’	M6:14d תַּפְּלִיט taṭplīt ‘will make safe’
M6:14f אֶתֵּן ‘ettēn ‘will give’	M6:15a תִּזְרַע tizra‘ ‘will sow’	M6:15b תִּקְצֹר tiqṣôr ‘will reap’
M6:15c תִּדְרֹךְ tīdrōk ‘will tread’	M6:15d תִּסְוֶךְ tāsûk ‘will anoint’	M6:15e תִּשְׁתֶּה tīšteḥ ‘will drink’
Z1:13e יִשְׁתּוּ yīštû ‘will drink’	Z2:7c יִרְבְּצוּן yirbāšûn ‘will lie down’	Z2:14b יֵלִינוּ yālīnû ‘will lodge’
Z2:14c יִשׁוֹרֵר yəšôrēr ‘will sing’	Z2:15b יִשְׂרֹק yīšrōq ‘will hiss’	Z2:15c יִנִּיעַ yānî‘ac ‘will shake’
Z3:13a יַעֲשֶׂוּ ya‘āšû ‘will do’	Z3:13b יִדְבְּרוּ yəḏabbērû ‘will speak’	Z3:13c יִמָּצֵא yimmāšē‘ ‘will be found’
Z3:13d יִרְעוּ yir‘û ‘will graze’		

Ambiguous aspect/time:

A1:2b (יִשָּׁאֵג yišʾāg ‘will be roaring/will roar/roars’—future-imperfective, future-perfective, or present habitual); A1:2c (יִתֵּן yittēn ‘will be speaking/will speak/speaks’—future-imperfective, future-perfective, or present habitual); M6:2b (יִתְוַכֵּחַ yitwakkāḥ ‘will contend/will be contending’—future perfective or imperfective); M7:4b (תִּהְיֶה tihye^h ‘will be/become’—future perfective or imperfective; adverbial could also be present); M7:7c (could be either pve or hab depending on whether He will hear a specific cry or whenever he cries); M7:8d (אֵשֶׁב ʾēšēḇ ‘would sit/sit’—hypothetical situation, past habitual, or present habitual); M7:10d (תִּהְיֶה tihye^h ‘will be/become’—perfective ingressive or imperfective stative); M7:11a (יִרְחַק yirḥaq ‘will be/become extended’—future stative-imperfective or ingressive-perfective); M7:19a-b (יָשׁוּב יִרְחַמֶּנּוּ yāšûḇ yəraḥāḥmēnû ‘will again have compassion’—probably future-perfective serial verb);

Textual Issue:

M2:4; M4:14a (תִּתְגַּדְּדוּ tītḡōdēdû ‘muster/slash yourselves’—uncertain of root, jussive or YIQTOL); M6:9b (יִרְאֶה yirʾeh^h ‘will see’—could be infinitive, see Andersen & Freedman 2006:246 and LXX); M6:16a (וַיִּשְׁתַּמֵּר wəyištammēr ‘would keep/kept’—LXX has aorist, which is past-perfective; could be habitual or WAYYIQTOL)

Modal: A2:12c (תִּנְבֵּא tinnāḇʾû ‘must prophesy’—deontic modal, habitual); A5:5b (תָּבֹא tāḇʾôʾû ‘must come’—deontic modal); A5:5c (תַּעֲבֹר׃ taʿăḇôrû ‘must cross over’—deontic modal); A5:15d (יִחַן yəḥēnan ‘might be gracious’—epistemic modal); A7:10c (תֻּכַּל tūkāl ‘able’—lexical dynamic modal, imperfective); A7:12e (תִּנְבֵּא tinnāḇēʾ ‘must prophesy’—deontic modal); A7:13a (תֹּסִיף tôsîḥp ‘must not add’—

deontic modal); A7:16b (תִּנְבֵּא tinnābē³ ‘must prophesy’—deontic modal); A7:16c (תִּטַּיֵּן tattiṭîp ‘must prophesy’—deontic modal); A9:1f (יָנוּס yānûs ‘will be able to escape’—circumstantial modal); A9:1g (יִמָּלֵט yimmālēt ‘will be able to escape’—circumstantial modal); M2:3b (תִּמְיֹשׁוּ tāmîšû ‘will be able to remove’—circumstantial modal); M2:6c (יִטְפֹּן yaṭṭîpû ‘must preach’—deontic modal); M2:6d (יִסָּג yissaḡ ‘can overtake’—circumstantial modal); M3:11e (תָּבֹא tābô³ ‘can come’—circumstantial modal or future-perfective); M6:14e (תִּפְּלֵט təpāllet ‘might preserve’—epistemic modal); Z1:18 (יִכָּל yûkal ‘will be able’—circumstantial modal); Z2:3e (תִּסְתָּר tissātrû ‘may be hidden’—epistemic modal); Z3:5a (יַעֲשֶׂה ya^cāše^h ‘can do’—dynamic modal); Z3:7b (תִּירָא tîrâ¹ ‘must fear’—epistemic modal); Z3:7c (תִּקַּח tiqḥî ‘must take’—epistemic modal); Z3:17a (יִוָּשֶׁעַ yôšî^{ac} ‘can save’—dynamic modal or present habitual)

Might be jussive/cohortative:

A4:1c (וְנִשְׁתֶּה wənište^h ‘we may drink/let us drink’—cohortative or YIQTOL); A5:24a (וְיִגַּל wəyiggal ‘let roll down/may roll down’—jussive or YIQTOL); A9:1d (וְיִרְעָשׁוּ wəyîr^cāšû ‘shake/may shake’—jussive or YIQTOL); M1:8d (וְאֶעֱשֶׂה e^cēše^h ‘must make/let me make’—cohortative or YIQTOL); M3:4c (וְיִסְתֵּר wəyastēr ‘let him hide/may he hide’—jussive or YIQTOL); M4:2d (וְנִעָלָה wəna^cāle^h ‘let us go up/we must go up—cohortative or YIQTOL); M4:2e (וְיִוָּרֶנּוּ wəyôrēnû ‘let him teach/he may teach’—jussive or YIQTOL); M4:11b (תִּהְיֶה נִתְּחָה teḥēnāp ‘let her be polluted/she must be polluted’—jussive or YIQTOL); M5:8b (יִכָּרְתוּ yikkārētû ‘let them be cut off/they must be cut off’—jussive or YIQTOL); M6:1d (וְתִשְׁמָעָנָה wətišmā^cnā^h ‘let them hear/may they hear’—jussive or YIQTOL); M6:14c (וְתִסָּג wəṭassēḡ ‘save/you may save’—jussive or YIQTOL);

M7:7a (אֶשְׁפֹּחַ *ʾāšappe^h* ‘will watch/must watch’—cohortative or YIQTOL); M7:14b (יִרְעוּ *yir^ʿû* ‘let them graze/they must graze’—jussive or YIQTOL); Z2:13b (וַיֹּאבֵד *wîʾabbēd* ‘let him destroy/he must destroy’—jussive or YIQTOL)

Irrealis hypothetical:

A2:13a (כַּאֲשֶׁר תָּעִיק *kaʾāšer tā^ʿîq* ‘as...would press’); A3:12b (כַּאֲשֶׁר יִצִּיל *kaʾāšer yaššîl* ‘as...would snatch’); A9:9c (כַּאֲשֶׁר יִנּוּעַ *kaʾāšer yinnô^{ac}* ‘as...would be shaken’); A9:9d (יִפּוֹל *yippôl* ‘would fall’—coordinate to preceding, A9:9c); M5:6b (יִקְוֶה *yəqawwe^h* ‘would wait’—after כְּטַל *kəṭal* ‘like the dew’); M5:6c (יִיחַל *yəyahēl* ‘would wait’—after כְּטַל *kəṭal* ‘like the dew’)

Question:

A3:3a (הֵי־לֵכָה *hăyēlkû* ‘walk’—generic); A3:4a (הֵי־שָׁאג *hăyiš^ʿaġ* ‘roar’—generic); A3:4b (הֵי־יָתַן *hăyittēn* ‘give’—generic); A3:5a (הֵי־תִפֹּל *hăṭippôl* ‘fall’—generic); A3:5b (הֵי־עָלָה *hăya^ʿālē^h* ‘spring up’—generic); A3:5c (יִלְכֹּד *yilkôd* ‘captures’—generic); A3:6a (יִתְקַע *yittāqa^ʿ* ‘blown’—generic); A3:6b (יִהָרָדוּ *yehērādû* ‘tremble’—generic); A3:6c (תִּהְיֶה *tihye^h* ‘is’—generic); A3:8b (יִירָא *yîrā^ʿ* ‘would fear’—generic); A3:8d (יִנָּבֵא *yinnābē^ʿ* ‘would prophesy’—generic); A6:12a (הֵי־רָצוּן *hayəruṣûn* ‘run’—generic); A6:12b (יִהָרֹשׁ *yahārôš* ‘plow’—generic?); A7:2e (יָקוּם *yāqûm* ‘can stand’—ability modal, present, imperfective); A7:5c (יָקוּם *yāqûm* ‘can stand’—ability modal, present, imperfective); A8:5a (יַעֲבֹר *ya^ʿābôr* ‘pass’—future-perfective); A8:6a (נִשְׁבִּיר *našbîr* ‘may sell’—teleological modality); A8:8a (תִּרְגַּז *tîrgaz* ‘tremble’—Future-perfective); M2:7b (יַעֲטִיבוּ *yêṭîbû* ‘do good’—generic); M4:9a (תִּרְעִי *tārî^ʿi* ‘are you crying’—present-habitual or imperfective); M6:6a (אֶקְדֵּם *ʾāqaddēm* ‘should

meet’—deontic modal, present-perfective); M6:6b (אִכְּכָּא ^ʾikkaḇ ‘should bow myself’—deontic modal, present-perfective); M6:6c (הֶאֱקַדְמֶנּוּ ha^ʾāqaddəmənnû ‘should meet’—deontic modal, present-perfective); M6:7a (הֵיִרְצָה hăyirṣe^h ‘would be pleased’—generic); M6:7b (הֶאֱתַן ha^ʾettēn ‘should give’—deontic modal, present-perfective); M6:11a (הֶאֱזַכָּה ha^ʾezke^h ‘can be clean’—dynamic modal, present-imperfective, generic)

Conditions:

A5:22a (אִם־תַּעֲלֶיךָ im-ta^ʿālû ‘if you offer’—protasis, habitual); A5:22b (אֶרְשָׁה ʾerṣe^h ‘will accept’—apodosis, habitual); A5:22c (אֲבִיט ʾabbîṭ ‘will look’—apodosis, habitual); A6:9b (אִם־יִשְׁתָּרֶוּ im-yiwwāṣṣrû ‘if...remain’—protasis); A9:2a (אִם־יִחַתְּרוּ im-yaḥtərû ‘if...dig’—protasis, perfective); A9:2b (תִּיקַחְהֶם tiqqāḥēm ‘will take’—apodosis, perfective); A9:2c (וְאִם־יַעֲלֶיךָ wə^ʾim-ya^ʿālû ‘if they go up’—protasis, perfective); A9:2d (וְאִם־יֵרִידוּ wə^ʾim-yēḥāḇû ‘if...hide themselves’—protasis, perfective); A9:3a (וְאִם־יִחַתְּרוּ wə^ʾim-yēḥāḇû ‘if...hide themselves’—protasis, perfective); A9:3b (אֶחְפֹּשׁ ʾāḥappēś ‘will search out’—apodosis); A9:3d (וְאִם־יִסְתָּרֶוּ wə^ʾim-yiṣṣāṣrû ‘if...hide’—protasis, perfective); A9:3e (אֶצַּוְהָ ʾāṣawwe^h ‘will command’—apodosis, perfective); A9:4a (וְאִם־יֵלְכוּ wə^ʾim-yēlkû ‘if...go’—protasis, perfective); A9:4b (אֶצַּוְהָ ʾāṣawwe^h ‘will command’—apodosis, perfective); M3:4a (יִזְעֻקוּ yiz^ʿāqû ‘should they cry’—unmarked conditional, protasis); M3:4b (יַעֲנֶה ya^ʿāne^h ‘will answer’—unmarked conditional, apodosis)

After non-actualized subordinator (all hypothetical situations):

A5:6c (פֶּן-יִצְלַח pen-yiṣlah ‘lest...rush through’—consequence); A5:14 (לְמַעַן תִּחְיֶיךָ ləma’an tiḥyû ‘in order that...may live’—purpose); A5:19a (כַּאֲשֶׁר יָנוּס ka’ăšer yānûs ‘like when...flees’—hypothetical situation); A9:12a (לְמַעַן יִרְשׁוּ ləma’an yîršû ‘in order that...may possess’—purpose); Z2:2b (בְּטֶרֶם לֹא-יָבוֹא bəṭérem lô-yābô ‘before...does not come’); Z2:2c (בְּטֶרֶם לֹא-יָבוֹא bəṭérem lô-yābô ‘before...does not come’); Z3:7d (יִכָּרֵת yikkārēt ‘would be cut off’—No subordinator, but rhetorical relation of consequence, hypothetical situation)

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