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Syntactic and Semantic Variation in Copular Sentences

Insights from Classical Hebrew

Daniel J. Wilson

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by Daniel J. Wilson

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Abbreviations

∃P	Existential phrase
&P	Conjunction phrase
∅	Null Verb
A	Adjective
ABS	Absolute
ACC	Accusative
AD.ESS	Adessive
Af	Affix
AGR	Agreement node
AP	Adjective phrase
ART	Article
ASPP	Aspect phrase
CH	Classical Hebrew
C	Complementizer
CERT	The set of particles which exist in the left-periphery to mark certainty
CP	Complementizer phrase
CONJ	Conjunction
COP	Copula
D	Determiner
DM	Distributed Morphology
DP	Determiner phrase
EPP	Extended Projection Principle
Ev	Eventive
EX	Existential particle
EXIST	Existential
F	Functional category
FinP	Finite phrase
FocP	Focus phrase
FocusP	Focus phrase
ForceP	Force phrase
FP	Functional phrase
FUT	Future
GEN	Genitive

GKC	Gesenius, Wilhelm. 1910. *Gesenius' Hebrew Grammar*, E. Kautzsch ed. translated by A.E. Cowley, 2nd English ed. Oxford:Oxford University Press.
GQ	Generalised quantifier
HAB	Habitual
IMP	Imperative
INDIV	Individual level
INF	Infinitive
INFL	Inflectional node
IPFV	Imperfective
JUSS	Jussive
LD	Left dislocation
LF	Logical form
LOC	Locational constituent
Mod	Mood head
ModP	Mood phrase
N	Noun
NEG	Negator
NEG.EX	Negative existential particle
NEGP	Negator phrase
NOM	Nominative
NP	Noun phrase
OBJ	Object marker
P	Predicate
PASS	Passive
PERF	Perfect tense/aspect
PF	Phonetic form
PFV	Perfective
PP	Prepositional phrase
PPC	Predicative Possessive Construction
Pred	A functional head which relates a complement to a subject
PRET	Preterite
PRON	The pronoun used in a tripartite clause
PTCP	Participle
Q	Question particle
REFL	Reflexive
S	Subject
SC	Small clause
SG	Singular
SPEC	The specifier
STAGE	Stage level
ΣP	Polarity phrase

T	Tense
TAM	Tense, Aspect, and Mood
TH	Thematic category
TOP	Topic
TOPP	Topic phrase
TopicP	Topic phrase
TP	Tense phrase. A maximal projection in the Inflectional domain.
TRANS	Transitive
UNW	Unwitnessed
V	Verb
*v*P	Little-*v* phrase. The maximal projection which introduces an eventuality.
VoiceP	Voice phrase. The highest maximal projection in the thematic domain which introduces an external argument.
VOL	Volitive mood
VP	Verb phrase
W	Witnessed
WQTL	*Wəqatal*: An irrealis verb conjugation in CH
XP	A phrase which can be a noun phrase, adjective phrase, or prepositional phrase

A note on Hebrew transcription

The following provides an explanation for how transliteration is used throughout this book. Our current understanding of how Classical Hebrew was pronounced came to us from the Tiberians who added diacritics to unvocalized text. These diacritics are necessary for discerning some (though not all) morphological details. The following table provides a guide for how the Hebrew text has been transcribed. It is loosely based on the *Encyclopaedia Judaica* recommendations for scientific transliteration of Hebrew and Semitic texts.

א	ʾ	◌ָ	ā
בּ,ב	b,b̲	◌ָה	â
גּ,ג	g,ḡ	◌ַ	a
דּ,ד	d,d̲	◌ֶ	e
ה	h	◌ֵה	ē
ו	w	◌ֵ	ē
ז	z	◌ֵי	ê
ח	ḥ	◌ִ	i
ט	ṭ	◌ִי	î
י	y	◌ֹ	o,ō
כּ,כ,ך	k,k̲,k̲	◌וֹ	ô
ל	l	◌ֻ	u
מ,ם	m	◌וּ	û
נ,ן	n	◌ְ	ə
ס	s	◌ֲ	ă
ע	ʿ	◌ֱ	ĕ
פּ,פ,ף	p,p̄,p̄	◌ֳ	ă
צ,ץ	ṣ		
ק	q		
ר	r		
שׂ	ś		
שׁ	š		
תּ,ת	t,t̲		

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The ideas in this book have developed over the course of 9 years. There have been many people along the way who have helped in subtle ways, but there are a few who warrant mention here. I cannot express enough gratitude to my doctoral supervisors Cynthia Miller-Naudé and Jacobus Naudé. Your patience and keen attention to detail have helped me the whole way. You have been a model of excellence for me in bringing together linguistics and Hebrew studies. Special thanks also goes to Peter Gentry and Duane Garrett for teaching me Hebrew and encouraging my path into general lingusitic studies.

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To my parents, Paul and Joey, my grandmother, Martha, and my brother, Zac, I am so grateful to you for all the support and encouragement you have given. I certainly could not have done this work without you.

To my wife, Kerry, and to my children, I love you deeply and am so grateful to you for giving me space to work on these ideas for so many years. You are a treasure to me.

הָבוּ לַיהוָה כְּבוֹד שְׁמוֹ

Preface

This book is an entire reworking of my PhD thesis which addressed a related group of constructions in Classical Hebrew. At the invitation and encouragement of the editors, I have taken the data from Classical Hebrew and the theoretical approach of the thesis and brought them into a larger conversation.The present volume is designed to set forward a unique theory of copular sentences which attempts to account for the syntactic and semantic variation often found in copular sentences cross-linguistically.

There are a number of critical differences between the present volume and my PhD thesis. First, the entire structure has changed and each chapter contains significantly more interaction with research that did not appear in the thesis. My involvement in a number of linguistics summer schools exposed me to additional lines of thinking which enabled me to view the data with a difference perspective. In most cases, this merely enabled me to write with more precision about the inner workings of the theoretical model I have adopted. In a few cases, however, I have reconsidered positions I defended in the thesis (e.g. the nature of PRON). Second, an anonymous reviewer recommeded I include a much more detailed discussion of the theoretical framework I have adopted and why it should bre preferred over other approaches. This recommendation also entailed a much more thorough discussion on the issue of lexical categorization, which I did not spend much time on in the thesis. Third, my treatment on the copula in the left-periphery (chapter 5) has evolved significantly since the thesis was written. The issue of the thetic/categorical distinction in natural human language is evolving in present linguistic discussion. I am attempting to be an active conversation partner in this evolution (*see* Wilson forthcoming), so all this additional research is reflected in chapter 5.

This book is (hopefully) the initial installment in a much larger research program which is devoted to taking the discussion of non-verbal predication forward. The topic of non-verbal predication presents us with a fascinating opportunity to continue making progress in understanding natural human language by narrowing our focus on the semantic and syntactic variation which exists in these seemingly ubiquitous constructions. It is important that our theories about these constructions (and related issues) are able to account for the interesting data which has been noticed in the languages of the world. I present here the data of Classical

Hebrew as a demonstration of how new data force us to nuance earlier theories about these constructions. It is my sincere hope that this book will continue to push us closer to a thorough account of these constructions and, through them, to a deeper understanding of human language.

Syntactic and semantic variation in copular sentences

Insights from Classical Hebrew

> The proposition "Socrates is a man" is no doubt equivalent to "Socrates is human," but it is not the very same proposition. The *is* of "Socrates is human" expresses the relation of subject and predicate; the *is* of "Socrates is a man" expresses identity. It is a disgrace to the human race that it has chosen the same word "is" for these two entirely different ideas – a disgrace which a symbolic logical language of course remedies. (Bertrand Russell 1920: 172)

CHAPTER 1

Introduction

Broadly speaking, this is a study of form and meaning variation in copular sentences – also called sentences with non-verbal predicates – viewed through the lens of Classical Hebrew.[1] It is a window into the minds of speakers of an ancient tongue whose use of these fundamental expressions teach us more about the rich capacity of human language. The subject matter is of foundational importance to our knowledge of human language. Bowers writes, "There could hardly be a relation more fundamental to grammar than predication. Indeed, it could be argued that predication is, in a certain sense, *the* most fundamental relation in both syntax and semantics" (Bowers 2001: 328 emphasis original). The scope of this topic stretches across all natural and artificial languages and the theoretical implications span disciplines as diverse as logic, philosophy, metaphysics, psychology, and mathematics.

The present book not only provides an explanation for the syntactic and semantic variation in Classical Hebrew (CH), but also models a method for analyzing sentences which utilize from zero to many copulas in different languages and often do so in non-prototypical ways. Research on copular sentences has long recognized that the system of non-verbal predication in language is often not as simple as it first appears. An increasing number of studies featuring the complex copula systems of newly-analyzed languages have demonstrated that the theoretical conceptualization of earlier times needs updating. Without a doubt, recent monographs on non-verbal predication such as Hengeveld (1992), Devitt (1994), Stassen (1997), Pustet (2003), den Dikken (2006), Roy (2013) and countless articles which are cited in this book have provided priceless insight into how these constructions work. This book builds from the results of so much of this prior research.

The present volume distinguishes itself, however, in several key areas. First, and most obviously, it is a formal analysis of the syntax and semantics of a dead language. It is evidence that enough progress has been made in the formal approach to the growing science of linguistics that we can learn new things about

1. The terms Classical Hebrew and Biblical Hebrew are often used interchangeably. The corpus for this study includes the entire text of the Hebrew Bible.

the faculty of language without having a native speaker to consult. The data from dead languages provide interesting forms to evaluate through the lens of modern theoretical frameworks. It is true that we cannot manipulate constructions with a native speaker in order to determine if a certain construction is ungrammatical in a dead language; we can, however, assume that what language data we do have were grammatical to a certain community at a certain time in history. Languages which have predominantly remained in the domain of philology are able to stretch and nuance our discussions about human language capacity, often introducing interesting diachronic phenomena.

Second, the CH data present some unique constructions which serve as prime examples for why a study of copular sentences must expand beyond what may be considered prototypical copular sentences. We must have a syntax which can explain how and why so many languages have multiple copulas; or why so many accomplish predication with no copula at all. We must have a semantics which can account for the diversity of relationships between subject and predicate. Take Examples (1) and (2) for instance.

(1) Mary is rude.

(2) Mary was rude three times.

Example (1) is a clear example of an adjectival predicate which attributes a property of Mary. There is no agency in the subject and no eventiveness in the predicate. This changes in (2). This sentence may be interpreted as having an agentive subject and an eventive predicate. What accounts for the semantic difference? Several constructions in CH provide interesting insight which can help us understand this phenomenon. Or take (3) as another example.

(3) The city is cold.

This sentence can be stating something which is true at the moment of speaking or something which is generally characteristic of the city. This is the well-known *stage/individual* level contrast. Both of these readings also exist if by *cold* the speaker means *unwelcoming*. Clearly it is necessary to have a robust semantics of copular sentences to explain the underspecification in the syntax. Further, what happens if the word *seems* replaces the word *is*?

(4) The city seems cold

We must understand what, if any, relationship exists between prototypical copulas and what have been called *pseudo-copulas* like *seems* in (4). Though this book is not primarily about pseudo-copulas, it provides a foundation with which they may

be included in a thorough analysis of copular sentences, a point to which I return in the conclusion.

Third, this is the first comprehensive study of the CH copula *hyh* ever produced. There are many foundational studies of the CH copula as well as the corresponding *verbless clause* – the primary means of copular predication in CH – but none has included every finite occurrence of *hyh* in the data collection. Though not every context that *hyh* appears will be covered in this book, every instance was studied and notated. To the extent that the Hebrew Bible represents a sufficient sample size for a study of both synchronic and diachronic properties of CH, this study provides an accurate picture of how copular constructions worked.

The structure of the book is as follows. In Chapter 2, I provide an overview of many of the cross-linguistic and theoretical issues which arise in a study of this subject. This includes a review of different approaches to what constitutes non-verbal predication. Perspectives from multiple frameworks are reviewed in order to provide a fair overview of how this subject has been approached before. One of the more important issues concerns the role of the copula. Does the copula play a role in predication or is it simply used to host inflectional features? Most treatments of copulas describe them as semantically-empty elements used to support inflection, raising verbs, or light verbs. How exactly do copulas "support" inflection? This depends largely on how one views broader issues of Tense, Aspect, and Mood (TAM) licensing in language. Auxiliaries used in verbal sentences are often some version of the copula. Are copulas merely auxiliaries for non-verbal predicates? After reviewing how some have addressed these questions, I move to the cross-linguistic issue of the taxonomy of predicate types and lexical categorization. Not all non-verbal predicate types function the same way across languages, many of them taking different copulas depending on the predicate type. Before we can be confident about our understanding of predicate types, we must address the challenging subject of lexical categories. I summarize different perspectives on lexical categorization from both functional and formal perspectives and then, within the formal perspective, between lexicalist and constructivist perspectives. I ultimately adopt the constructivist perspective on lexical categories, specifically the view adopted within Distributed Morphology (DM).

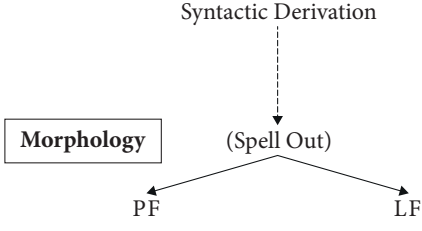
Chapter 3 introduces the data of CH copular sentences. I begin with a description of the verbless clause, which is the most common syntactic structure for copular sentences in CH. One example is given in (5).

(5) 2 Samuel 17:8
וְאָבִיךָ אִישׁ מִלְחָמָה
wə-ʾāḇîkā ʾîš milḥāmâ
CONJ-father.2MSG man.GEN[2] war
Your father (is) a man of war.

In this section I include a short excurses on the history of terminology with respect to the verbless clause. It is common in writings about CH to see the label *nominal clause* applied to these verbless copular sentences. In this excurses I provide an historical account of how this label came to be adopted and then discuss why it should be rejected going forward. Next, I list the many domains in which the copula *hyh* is used in CH. This section includes many representative examples which will demonstrate to the reader all the contexts in which the copula is used rather than a verbless clause.[3] This list of examples will provide the background for the main chapter of this book, Chapter 4. I conclude Chapter 3 with a discussion of the pronoun in CH which has often been called a pronominal copula (or PRON). This section will provide a short review of how PRON has been evaluated in both CH as well as other languages which have something similar.

Chapter 4 is the most important chapter in the book. This chapter builds a case for how I believe copular sentences are constructed which explains why there are mismatches in the syntax and semantics. I begin by providing an overview of Distributed Morphology, the framework with which I approach this subject. I introduce the architecture of grammar and explain the different components, following the common inverted Y diagram in (6).

(6)



In DM, the assumption is that there is no lexicon which contains the words of a language with sets of innate features. Instead, there is a single generative engine which assigns roots and features to different terminal nodes in the syntax which

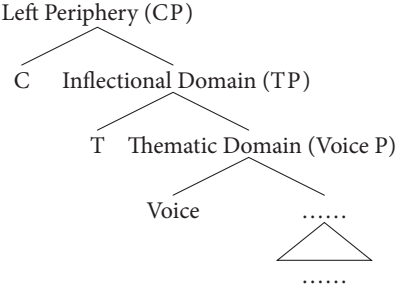
2. There is no case system in CH. The genitive relationship is achieved through a construct form which is not always morphologically realized. Where the construct exists in the syntax, it is represented with the abbreviation GEN.

3. It is important to note that I do not include any examples of the infinitive form of the CH copula. How the copula functions in infinitives is outside the scope of the present book.

are then sent to be pronounced at PF (Phonological Form) and interpreted at LF (Logical Form) after spell-out. At PF, there are post-syntactic operations which can manipulate the features which came from the syntax and ultimately produce the pronunciation we experience as readers/hearers of a language. One of these operations is called Vocabulary Insertion, which is when a Vocabulary Item is inserted into a terminal node with matching features. Sometimes morphemes compete for insertion (known as *allomorphs*) and the one which has the maximal number of matching features wins and is pronounced. Just as there is allomorphy in PF, more and more studies within DM are demonstrating that there is comparative *allosemy* in LF. This means that different interpretations of a particular syntactic terminal node compete and only one is inserted in contextually-appropriate positions. This more-or-less recent component in DM-oriented research is debated, but it plays an important role in the present book. In addition to my description of the architecture of grammar, I list my assumptions about syntax. My assumptions about syntax include MERGE and AGREE from Minimalism (Chomsky 1995).

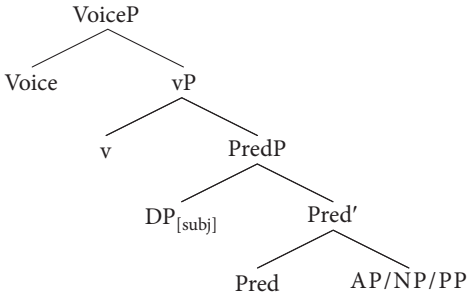
After introducing DM and why it is relevant to an analysis of copular sentences, I demonstrate how CH copular sentences are built, including an analysis of all three domains in the architecture of grammar, modeled in (7).

(7)



This approach is necessary since pieces of syntax are directly responsible for the variation that exists in CH copular sentences. The structure of the thematic domain for copular sentences (in (8)) necessarily includes a functional head Pred which has received considerable consensus in the research on the structure of copular sentences.

(8)



In my discussion of the Inflectional domain I introduce the role of the copula in CH as an auxiliary which through the post-syntactic operation Fusion is the single exponent of multiple inflectional heads. In Chapter 4 I demonstrate how this process works for Tense, Aspect, and Mood, as well as combinations of these heads. I also address the interesting phenomenon in which it seems like the surrounding context is sufficient to value certain features on T, since there are many examples where one finds a verbless clause in sentences where an inflected copula would reasonably be expected. The section on syntax and Vocabulary Insertion of the copula ends with a list of copular sentence types which have a different semantic role for the subject and predicate. To explain these examples I introduce the semantics of copular sentences.

The semantics of copular sentences make use of different allosemes of little-*v*, which controls the type of eventuality. The Voice head, which introduces the external argument also has different allosemes which are dependent on the *v* in their complement. The different allosemes of Voice are listed in (9)

(9) Allosemes of Voice
   a. $[\![\textbf{Voice}]\!] \leftrightarrow \lambda x_e.\lambda e_s.\text{Agent (x)(e) / \_\_\_\_}$ (agentive, dynamic event)
   b. $[\![\textbf{Voice}]\!] \leftrightarrow \lambda x_e.\lambda e_s.\text{Holder (x)(e) / \_\_\_\_}$ (stative eventuality)
   c. $[\![\textbf{Voice}]\!] \leftrightarrow \lambda x_e.\lambda e_s.\text{Experiencer (x)(e) / \_\_\_\_}$ (achievement eventuality)

These allosemes demonstrate that the type of external argument which is introduced is dependent upon the eventuality in the complement of Voice. The allosemes of *v* are listed in (10).

(10) Allosemes of *v*
   a. $[\![v]\!] \leftrightarrow \lambda e_s.\text{activity(e)}$
   b. $[\![v]\!] \leftrightarrow \lambda e_s.\text{state(e)}$
   c. $[\![v]\!] \leftrightarrow \lambda e_s.\text{achievement(e)}$
   d. $[\![v]\!] \leftrightarrow \lambda x.x$

These allosemes are similar to the *Aktionsarten* following Vendler (1957). Example (10d) corresponds to a simple copula. I demonstrate that there are certain types

of copular sentences in CH which correspond to Example (10c) and have achievement semantics. Following Adger and Ramchand (2003) among several others, there are some contexts in which an alternate Pred head, called Pred_{Ev} (eventive) exists in the syntax which accounts for the eventive nature of different copular sentences cross-linguistically. This Pred_{Ev} is interpreted as an achievement eventuality in *v* and leads to the interpretation of the external argument as Experiencer. There are three primary contexts where I demonstrate these different semantics and that the copula is obligatorily pronounced: the inchoative (11), the telic (12), and the complementless (13).

(11) Genesis 2.7
וַיְהִי הָאָדָם לְנֶפֶשׁ חַיָּה
wayhî hā-ʾāḏām lə-nep̄eš ḥayyâ
CONJ.COP.PRET.3MSG ART-man to-creature alive
The man became a living creature

(12) 1 Samuel 15.10
וַיְהִי דְּבַר־יהוה אֶל־שְׁמוּאֵל
wayhî dəḇar yhwh ʾel šəmûʾēl
CONJ.COP.PRET.3MSG word.GEN YHWH to Samuel
The word of YHWH came to Samuel

(13) Isaiah 66.2
וְאֶת־כָּל־אֵלֶּה יָדִי עָשְׂתָה וַיִּהְיוּ כָל־אֵלֶּה נְאֻם־יהוה
wə-ʾeṯ kol ʾēlleh yāḏî ʿāśāṯâ wayyihyû ḵol ʾēlleh
CONJ-OBJ all these hand.1SG made.PFV.3FSG CONJ.COP.PRET.3MPL all these
nəʾum yhwh
word.GEN YHWH
"All these my hand has made and all these came to be" oracle of YHWH.

I devote Chapter 5 to a discussion about a very common construction throughout the Hebrew Bible which uses the copula *hyh* in the highest position in the left-periphery (14).

(14) Genesis 4.14
וְהָיָה כָּל־מֹצְאִי יַהַרְגֵנִי
wəhāyâ ḵol mōṣʾî yaharḡēnî
CONJ.COP.WQTL.3MSG all find.PTCP.MSG.1SG slay.IPFV.3MSG.1SG
It will happen, all who find me will slay me!

I have written elsewhere about the role of the copula in this construction (Wilson 2019, forthcoming) but include it in this chapter in order to provide a thorough account of how the copula functions in CH. I also attempt to situate it within the DM architecture used throughout the book.

Chapter 6 is devoted to a discussion of the syntax and semantics of existentials in CH. In this chapter I review some of the research on existentials and demonstrate how they are fundamentally distinct from prototypical copular constructions. An English existential sentence is given in (15).

(15) There is coffee in the kitchen.

I draw from the research of Francez (2007, 2009) on the semantics of existentials, who has demonstrated that the predicate of copulas is not the coda (*in the kitchen* in (15)) but is actually the pivot (*coffee* in (15)). The coda is equivalent to a sentential modifier. I then draw from the syntactic analysis of existentials by Myler (2016, 2018) who demonstrates that existentials also have a unique functional head $\text{Pred}_{\text{EXIST}}$ which is essential to interpreting the syntax. With this background to the syntax and semantics of existentials explained, I introduce how the copula *hyh* functions in CH existentials as well as the negative counterpart *lô' hāyâ*. This chapter also provides a description of the existential particles in CH, *yēš* (there is) and *'ên* (there is not). These particles exist side-by-side with the copula as strategies for CH existentials. I also review the recent work by Naudé and Miller-Naudé (2016) and Naudé, Miller-Naudé and Wilson (2019, forthcoming) which demonstrates that diachronic change is discernable in negative existentials according Croft's Negative Existential Cycle (1991b). This also has implications for the positive existential particle *yēš*. Finally, I conclude the chapter discussing predicative possession in CH which patterns closely with CH existentials. The concluding chapter summarizes the primary contributions of the book and points to further implications for this approach to copular and existential sentences.

CHAPTER 2

Non-verbal predication in cross-linguistic and theoretical perspective

The history of research on non-verbal predication maps closely with the history of research on a number of other significant linguistic discussions. A discussion of non-verbal predication requires an understanding of the nature of predication. A description of predication necessarily includes a taxonomy of predicate types. A taxonomy of predicate types necessarily includes an understanding of lexical categorization. Each of these subjects has generated a substantial body of research. Though a thorough review of the different perspectives on predication and lexical categorization are outside the scope of this volume, I include a discussion of several important approaches and my own position on these topics in order to facilitate the higher-level analysis of non-verbal predication. This chapter will present a review of the theoretical treatments of non-verbal predication including the role of the copula, a discussion of the taxonomy of predicate types, and an overview of the complicated nature of lexical categorization cross-linguistically.

2.1 Theories of non-verbal predication

Bowers says, "There could hardly be a relation more fundamental to grammar than predication. Indeed, it could be argued that predication is, in a certain sense, *the* most fundamental relation in both syntax and semantics" (Bowers 2001: 328 emphasis original). This statement captures the significance of the topic under discussion. In general, propositions are structured entities which are composed of constituents. The joining of these constituents to form a proposition with truth conditions is known as predication. Consider the difference between (1) and (2).

(1) The museum, a time-machine

(2) The museum is a time-machine.

Example (1) is an incomplete sentence fragment which has no truth conditions (i.e. it cannot be evaluated as a true or false statement). Example (2), on the other hand, is a proposition which has truth conditions. The nature of what constitutes

predication has been debated for centuries. Aristotle, in his work *On Interpretation* defined a proposition as an instance of predication which affirms or denies something of something (translation from Hutchins (ed.) 1952: 26). Since Aristotle, scholars in philosophy, logic, metaphysics as well as linguistics have attempted to define the essential components of predication as well as what happens when they are joined.

Before the concept was taken up in linguistics, it was discussed thoroughly in the works of 19th century philosopher Friedrich Ludwig Gottlob Frege.[1] He is credited with defining predication as bipartite: as a logical function and its arguments. A translation of Frege's *Function and Concept* is provided in Sullivan (2003):

> Statements in general, just like equations or inequalities or expressions in analysis, can be imagined to be split up into two parts; one complete in itself and the other in need of supplementation, or "unsaturated." Thus, e.g., we split up the sentence *Caesar conquered Gaul* into *Caesar* and *conquered Gaul*. The second part is "unsaturated" – it contains an empty space; only when this place is filled up with a proper name, or with an expression that replaces a proper name, does a complete sense appear. Here too I give the name "function" to what this "unsaturated" part stands for. In this case the argument is Caesar.

The notion of what constitutes a subject and a predicate was taken up by linguists and the pragmatic concept of *aboutness* was associated with subjecthood. In the bipartite structure of predication, the subject was known as that entity about which the predicate asserted some property. The problematic nature of this pragmatic definition is revealed in sentences such as *In came the criminal with his gun drawn, It's raining*, and *There's coffee in the kitchen*.

As this concept increasingly became a subject of linguistic inquiry, the term "predication" was not embraced by all. Jespersen abandoned the term predication and introduced the term *nexus* – the joining of two concepts:

> It would probably be best in linguistics to avoid the word predication altogether on account of its traditional connexion with logical theories. In grammar we should, not of course forget our logic, but steer clear of everything that may hamper our comprehension of language as it is actually used; this is why I have coined the new term nexus with its exclusive application to grammar.
>
> (Jespersen 1937: 120)

For a more recent critique on the usefulness of the categories of subject and predicate, see Collins (2017). Most strictly linguistic works on predication have applied a more structural definition, though semantics are integral to these analyses.

1. For a detailed history of Frege's description of predication and how it compared with Aristotle's, see Bar Asher (2009), Stalmaszczyk (2017) and den Dikken (2006).

Whether we adopt the term predication or *nexus*, it is uncontested that the study of predication is the study of a relation. The concept *saturation* has been applied most consistently to describing this relation (Rothstein 2001). The predicate is an open function which needs to be saturated by its argument(s). The two fundamental components of a predication relation are the subject argument which is of the type <e> (denoting individuals) and the predicate which is of the type <e,t> (takes an individual and returns a truth value).[2] It can be represented with the notation in (3).

(3) λPλx[P(x)]

According to some, the assignment of thematic roles (θ-roles), such as agent, patient, experiencer, etc. corresponds to the saturation relation in predication (Williams 1980, 1994). Within the generative approach to syntax there have been multiple proposals to defining the predication relation. Some focus on the semantic roles assigned to the arguments just described (Williams 1980, 1994) while others focus on the linking relationship and co-indexation between subject and predicate (Rothstein 2004, 2006). Others propose a functional head which accomplishes the relation (Bowers 1993, 2001; Baker 2003; den Dikken 2006; Roy 2013). Since this book focuses on a very specific type of predication – predication in copular sentences – the relationships between constituents in these constructions are the only relationships relevant for this analysis. What follows is an outline of the copular predicate relation as it has been worked out in different approaches to syntax.

In his study of non-verbal predication, Hengeveld represents predication with the formula in (4).

(4) $(e_i: [pred_\beta (\alpha_1)\ldots(\alpha_n)] (e_i))$ (Hengeveld 1992: 25)

This means that $pred_\beta$ is a predicate and β is the category of the predicate (V, N, A, etc.) and $(\alpha_1)\ldots(\alpha_n)$ are the arguments required by that predicate. He gives the Example (5) for verbal predication:

(5) $(e_i: [read_v (d1x_i{:}man_N) (x_i)ø)_{Ag} (i1x_j{:}book_N) (x_j)ø)_{Go}] (e_i))$
The man read a book (Hengeveld 1992: 26)

The formulism in (5) may be read as the event (e) of the application of the predicate *read* to its two arguments: an individual (1), definite (d), Agent (Ag) (*the man)* to the individual (1), indefinite (i), Goal (Go)(*a book*.) Hengeveld represents non-verbal predication as (6):

2. In another approach, Roy (2013) states that a neo-Davidsonian event argument should be included. In this view the primary relation is not between individuals and propositions, but between individuals and events. I will say more about the role of event semantics in Chapter 4.

(6) $(e_i: [pred_\beta (\alpha_1)\ldots(\alpha_n)] (e_i))$
$(\beta \neq V)$ (Hengeveld 1992: 26)

He explains,

> A non-verbal predication is not the same as a nominal or verbless sentence. A predication, as e.g represented in [6], is a unit of semantic analysis, whereas a sentence is a unit of morpho-syntactic analysis. Thus, a non-verbal predication can be expressed by means of a verbal sentence, i.e. a copula construction…It follows from the definition of non-verbal predications as units of semantic analysis which may be expressed by either verbal or nominal sentences that the non-verbal predicate should be considered the main predication of a non-verbal predication, even in those cases in which it is accompanied by a copula. (Hengeveld 1992: 26)

He provides the following example of a predication based on a two-place non-verbal predicate:

(7) a. $identical_A (x_1)_\emptyset (x_2)_{Ref}$
b. $(e_i: [identical_A (d1prox\ x_i: book_N) (x_i)_\emptyset)_\emptyset (d1rem\ x_j: book_N) (x_j)\emptyset)_{Ref}] (e_i))$
This book (is) identical to that book.
(Hengeveld 1992: 30)

The non-verbal predicate in (7a) has two arguments. In (7b) the two arguments have the qualities of proximity (prox) and remoteness (rem), with the remote argument having the semantic role of reference (Ref). From this definition it is clear that Hengeveld identifies the predicate in non-verbal predications as an individual constituent which needs its arguments filled.

A relevant question in light of this approach, then, is what function the copula serves. Hengeveld claims that copulas form a subclass of auxiliaries. There are two types of auxiliaries in his system: one type is used in combination with verbal predicates only (Aux^V). The second type is used in combination with non-verbal predicates only (Aux^{-V}). Auxiliaries themselves can belong to different word classes as well. This creates a four-way matrix of auxiliary types in combination with different predicates. The following examples demonstrate the possibilities:

(8) a. John has_v^v gone
b. Peter $became_v^{-v}$ ill
c. Peter $PAST_{-v}^v$ speaks
d. David he_{-v}^{-v} the thief. (Hengeveld 1992: 31)

The sentences in (8c)–(d) are ungrammatical in English, but (8c) is grammatical in Tongan and (8d) is grammatical in Hebrew. The copula, then, is an auxiliary whose role is fundamentally a supportive one which enables a non-verbal predicate to

act as a main predicate.[3] This means that it is not a part of the predicate, but an auxiliary which accompanies a non-verbal predicate and its arguments (Hengeveld 1992: 32). Like auxiliaries, copulas are semantically vacuous and serve primarily a structural function. Hengeveld also comments on so-called semi-copulas such as English *become* and *remain* in (9) and (10) respectively.

(9) Charles became ill.

(10) Susan remained healthy.

He states that semi-copulas such as these may fulfill the same function as copulas, namely, to enable a non-verbal predicate to act as the main predicate in a sentence. Since they seem to add an "element of meaning" to the sentence, however, he concludes that semi-copulas cannot be treated in the same way as true copulas (Hengeveld 1992: 37).

Within the generative tradition the following sentences in (11) are traditionally recognised as being instantiations of predication.

(11) a. $[_{NP}$ Caleb$][_{VP}$ rode his bike]
b. $[_{NP}$ Kerry$][_{VP}$ is beautiful]
c. $[_{NP}$ Paul$][_{VP}$ is in the living room]

In the generative research on predication, examples such as the embedded sentences in (12) have also been labelled as a form of predication, called "small clause" predication (Stowell 1981: 257–258, 1983; Basilico 2003). A small clause is a subject-predicate structure lacking tense (den Dikken 2006: 60). This tenseless predication is commonly studied alongside predication that has a copular element.

(12) a. Daniel considers $[_{NP}$ Kerry$][_{AP}$ intelligent]
b. Levi saw $[_{NP}$ Caleb$][_{VP}$ take his toy]
c. We have $[_{NP}$ coffee$][_{PP}$ in the kitchen]
d. I consider $[_{NP}$ David$][_{NP}$ a good friend]

In these examples, it is clear that the second bracketed constituent bears some relation to the first which resembles the relations in (11). Mere adjacency of constituents cannot be what constitutes predication, however, as (13) demonstrates.

(13) a. I consider $[_{NP}$ David$][_{NP}$ a good friend]= David is a good friend
b. I gave $[_{NP}$ David$][_{NP}$ my favourite scarf] ≠ David is my favourite scarf

Reflecting on examples like those in (12) and (13) leads us to draw two tentative conclusions: (1) there must be a structural relation between constituents that

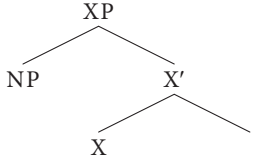
3. He further refines the role of different types of copulas found in the world's languages, including zero forms (Hengeveld 1992: 188–205).

defines the subject–predicate relation and distinguishes it from other relations that adjacent phrases may bear to one another; (2) there must be some way of representing this predication.

The work of Bowers (1993, 2001, 2002) as well as many others (Bakir 1979; Fehri 1993; Moro 1997; Eide & Afarli 1999; Al Horais 2006; den Dikken 2006; Citko 2008; Benmamoun 2008; Balazs 2012; Roy 2013; Chomsky 2013) have sought to create a unified structure that demonstrates that "full clause" predications (11) and small clause predications (12) share a similar underlying structure. This is especially because many languages do not have or use a copula like English does. Adjacency like that in the bracketed constituents in (12), without any verbal copular element can serve as a full clause predication in many languages.

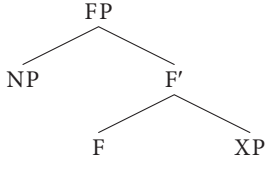
The unified structure underlying the subject – predicate relationship in these sentences has been reflected in two different models. One model (called the Specifier Hypothesis by Bowers 2001: 301) places the subject of a predicative expression XP of a category X in [Spec, X] resulting in the structure (14).[4]

(14)



The second model (called the Functional Category Hypothesis, Bowers 2001: 302) has a functional category F with XP as its complement and its subject in the specifier of F as in (15).

(15)



This functional head has been called Pr (Bowers 1993; Eide and Afarli 1999), π (Citko 2008), Pred (Baker 2003; Benmamoun 2008; Roy 2013) and RELATOR (den Dikken 2006).[5] Overt evidence for this functional head can been seen in the English sentences in (16) and the Norwegian sentence in (17).

4. Earlier hypotheses (Rapoport 1987: 72) suggested a symmetrical binary structure with no specifier.

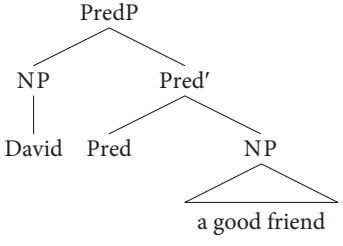
5. It is important to note that not all these authors agree on the role of this functional head.

(16) a. Frank treats him *(like) a fool.
b. Frank considers him (as) a fool

(17) *Jeg betrakter denne mannen som* [*svært dum*]$_{AP}$
'I regard this man as very stupid.' (Eide and Afarli 1999: 161)

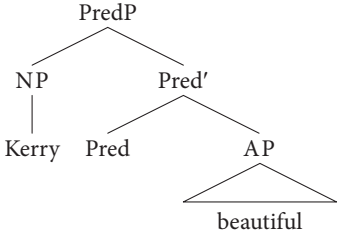
English can select *as*, *like*, *for*, or *ø* as the realization of the functional head in small clause complements (den Dikken 2006: 64). The phonological realization of the functional head in Norwegian is *som* (Eide & Afarli 1999). There is additional cross-linguistic evidence that makes a strong case for the presence of this functional head (Bowers 2001: 310–311; Balazs 2012). Under the Functional Category Hypothesis, (13a) would be represented as (18).

(18) I consider…



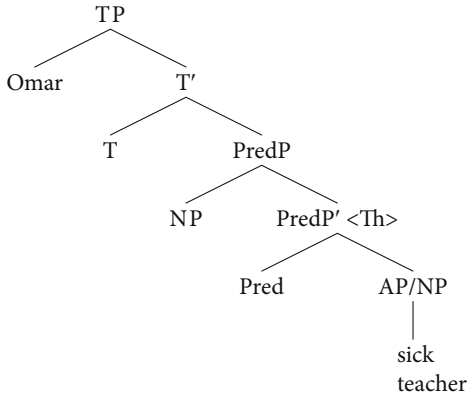
A "full clause" such as (11b) also has the structure represented in (19):

(19)



The syntax in (19) is reflected in many languages which do not require a copula in order to accomplish predication. The research of Baker (2003) and Benmamoun (2008) who have revised Bowers (1993, 2001) has been very influential in describing these so-called verbless clauses. Baker presents a valued derivation in (20) for verbless clauses in Arabic:

(20)

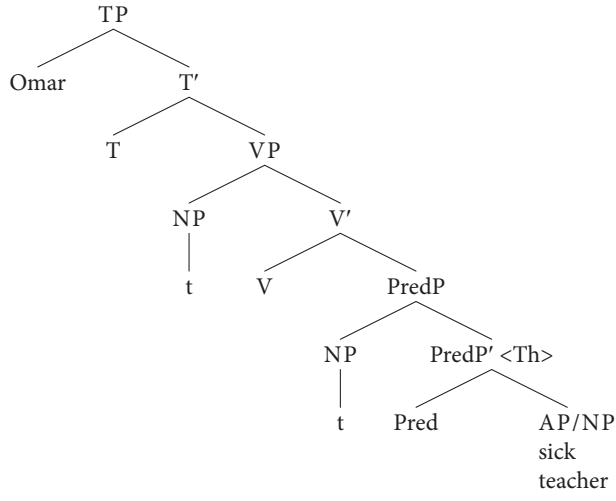


(Baker 2003: 48)

Baker accepts Bowers' (1993) analysis which says that no category can license its own specifier, but needs a functional head to license it. He cites the work of Chierchia (1985) who explains that there is an up-operator which takes the AP/NP of (20) and joins it with Pred in order to make an unsaturated predicate–a propositional function. This explains how a simple complement NP can become an unsaturated predicate. In the framework of Baker, Pred does not assign the theta-role to the subject because then every subject would bear the same theta-role. Instead, Pred takes the NP or AP and makes a theta-marking category out of it. Baker reflects this process by putting <Th> (Theme) on the Pred′ node. One of the features of this hypothesis is that a property-concept predicate could be generated either by a stative verb or by Pred + AP. Many languages (including CH) have this alternation.

In Baker's system, tense assigns nominative case to the subject and contains an EPP feature which moves the subject to (Spec, TP). For Arabic clauses with a copula he assumes the structure in (21):

(21)



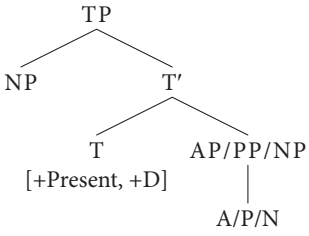
(Baker 2003: 49)

Baker explains that in past and future tense a copula is required because there is an unvalued affix feature [Af] on T which attracts a lexical head (V) to become its host. T in (21) does not contain [Af] and so no attraction is necessary and thus there is no V.

Benmamoun builds on Baker's explanation using the notion that the dependency of T on V is due to the presence of a categorial feature (+V) on T that forces it to be paired with the verb. There need not be a morphological affix in order to explain the movement of V to T (Benmamoun 2008: 123). The use of categorial features to show the dependency between tense and verb is parallel to the dependency that exists between tense and subject. A subject NP is licensed because of a categorial feature (+D) in T that needs to be paired with a nominal element. Movement of the subject to check this feature of T can be overt or covert (as can +V). This is evident when the subject is allowed to remain lower than TP at Spell-Out, which has been argued for VSO languages (Benmamoun 2008).

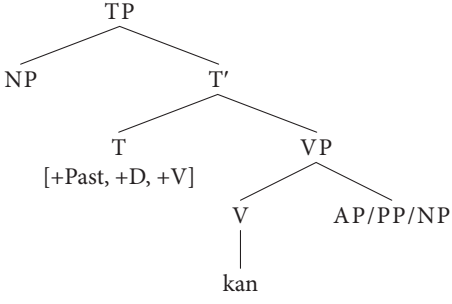
With these categorial features in mind, Benmamoun argues that languages can differ as to whether a particular tense is specified for the verbal and nominal categorial features. English requires both features in all tenses, which explains the movement of the subject to check the nominal feature (and then movement again to Spec, TP to license an EPP feature) and the obligatory presence of the copula to check the verbal feature. In Arabic, however, the present tense is only specified for the nominal feature while the past tense is specified for both. These are represented as follows:

(22) Arabic present tense features



(Benmamoun 2008: 115)

(23) Arabic past tense features



(Benmamoun 2008: 116)

Benmamoun then provides empirical evidence that the present tense in Arabic does not have the +V feature. He shows that in past tense, clauses with sentential negation must pass through a negative marker to check the +V feature on T. Negation is realized on the verb as a *ma* proclitic and an *š* enclitic as in (24).

(24) *Omar ma-katab-š ig-gawaab* (Benmamoun 2008: 117)
Omar NEG-wrote-NEG the-letter
Omar didn't write the letter

In present tense verbal sentences, however, it is possible to have the negative particles cliticise onto each other (25) just like they do in negative verbless clauses (26).

(25) *ʔana mi-š taalib* (Benmamoun 2008: 116)
I NEG-NEG student
I am not a student

(26) *mi-š biyiktib* (Benmamoun 2008: 118)
NEG-NEG writing
He isn't writing

The present tense verb in (26) does not have to pass through the negative head because there is no +V feature on T attracting it (Benmamoun 2008: 117–118).

Benmamoun also finds overt zealisation of the nominal feature (+N) of tense with the so-called pronominal copula in present tense sentences. This pronominal element occurs between the subject and predicate in Arabic (and Modern Hebrew, Doron 1983; Rapoport 1987) only in present tense sentences. This pronominal element agrees with the subject in number and gender but not person. Others have stated that this pronominal element is the realization of agreement features of the functional head I (Doron 1983; Rapoport 1987 for Modern Hebrew; Naudé 1994 for Biblical Aramaic and 2002a, 2002b for Qumran Hebrew). Benmamoun agrees with this assessment (relabelling I as T) and says that the incomplete agreement is due to the absence of the verbal feature in the present tense. The +V feature displays the agreement pattern of verbs which is +person, +number, +gender. The +D feature displays the agreement pattern of nouns which is only +number and +gender. This leads Benmamoun to recognise the pronominal element in Arabic and Hebrew present tense sentences to be the overt realization of the +D feature (Benmamoun 2008: 125).

So far, I have presented a few theoretical approaches to predication, the dominant view being that a functional head Pred makes predication possible. This head joins with its complement to create an unsaturated function. Once the function has been saturated by its argument (the subject) through the valuation of features, a truth value has been created and predication has been instantiated. The next important question concerns the precise role of the copula in in copular sentences.

2.2 The role of the copula

The question of the role of the copula in copular sentences is at the heart of this topic. Most treatments of copulas describe them as semantically-empty elements used to support inflection, raising verbs, or light verbs. As noted in Section 2.1, Hengeveld labels the copula an auxiliary which enables a non-verbal predicate to serve as the main predicate. In the generative tradition, some label copulas as the overt realization of Pred (or whatever label is given to the functional head) (Eide & Afarli 1999; Citko 2008).[6] Some languages have multiple copulas (e.g. Spanish *ser/estar*) which are motivated by underlyingly different relations between subject and predicate. Copulas also seem to play a different role in different predicate types like (27) and (28), demonstrated by their respective logical notations.

(27) Greg is tall= λPλx[P(x)]

(28) Samuel Clemens is Mark Twain= λxλy[x=y]

6. See the recent criticism of this analysis in Balazs & Bowers 2017: 123–124.

In (27), the copula seems to be mediating an ascriptive relationship where a quality is ascribed to a subject (the predicative *be* relation). In (28) the copula seems to be mediating an equivalence relationship (the equative *be* relation). This distinction has caused many to adopt a "two *be*" approach which distinguishes between two fundamentally different *bes* which have different arguments. The predication *be* does not have any semantic content but simply applies the predicate to the subject. The equative *be*, however, has been said to contain the semantic content which accounts for the identity relation between two arguments. Cross-linguistic studies such as Devitt (1994), Stassen (1997), and Pustet (2003) have shown that in some languages the equative *be* relation sometimes uses a different copula than the predicative *be*. One example from Scottish Gaelic will demonstrate.

(29) *Tha Calum faiceallach* [predication]
BI.3SG Calum careful
'Calum is careful.'

(30) *S'e Calum an tidsear* [equation]
IS.3SG.AGR Calum the teacher
'Calum is the teacher' (Roy 2013: 10)

This question becomes especially relevant in research on so-called copular inversion (Partee 1998).

An alternative to the "two *be*" hypothesis is the view that all occurrences of this verb can be reduced to a single notion. This notion is simply "apply predicate." Every instance of predication combines two arguments of type <e> and <e,t>, including equatives like (28). Though the second DP looks like a referential argument, it has undergone a type-shifting operation that allows referential DPs of type <e> to become type <e,t> (Partee 1987).

Leaving aside the number of underlying *bes* there are in natural language, there are a few perspectives on the role of the copula in examples like (27). One perspective is that the copula is a raising verb and that a sentence like (27) has the underlying form (31).

(31) [e [*be* [$_{SC}$ [*Greg*] [*tall*]]]]

In this analysis, the expression originates as a small clause where the subject DP receives its theta-role and then is raised to the empty subject position to the left of the copula. This analysis also explains equatives. Equatives are a case of "inversion" where instead of the subject being raised, the predicate is raised (Moro 1997). The difference is shown in (32) and the corresponding equative sentence with inversion in (33).

(32) Jeff is the professor
[Jeff$_i$ [is [$_{SC}$ [t$_i$] [the professor]]]]

(33) The professor is Jeff
[The professor$_i$ [is [$_{SC}$ [Jeff][t$_i$]]]]

One additional perspective denies that there is a lexical verb *be* and all occurrences of the copula are realizations of inflectional features in a non-verbal predication which cannot support those features without an auxiliary (Partee 1998). This view, simply stated, is that the role of the copula is to license inflectional features. In languages like Arabic (34), Hebrew (35), and Russian (36) copular predication can be accomplished by juxtaposition in the present tense without an overt copula.

(34) *Omar muʿəllim* (Arabic)
Omar teacher
Omar is a teacher

(35) *Dani nexmad* (Hebrew)
Dani nice
Dani is nice

(36) *Eto dom* (Russian)
This house
This is a house

This means that the predication relation is not dependent on the copula. The copula is an auxiliary which is necessary for licensing features on heads. According to Bjorkman (2011), auxiliaries function as a "last resort" strategy to realize features which need a host to be specified. The BE-verb in many languages is selected as an auxiliary because of its semantic vacuity. In verbal sentences, auxiliaries function as a repair strategy to realize stranded features which, for whatever reason, do not combine with the main verb (Bjorkman 2011: 37ff). If copulas are to be understood as auxiliaries, then they are simply functional elements used to spell-out inflectional features.

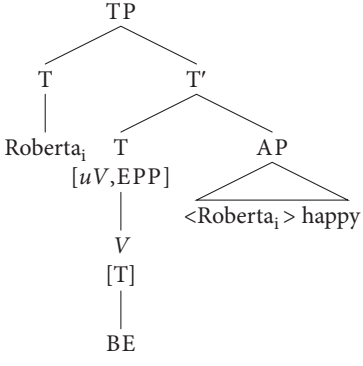
Another important question concerns how the copula *be* should be treated in syntax, specifically how and where it Merges. In languages such as English, it seems clear in typical predicational sentences that it ends up in the Inflectional Doman, licensing tense. Cowper (2010) compares English copula *be* to verbs like *seem* and *look* (often called pseudo-copulas) which behave like lexical verbs in contrast to copula *be*, which behaves like the auxiliary *be*. Just like the auxiliary, copular *be* moves to Neg and C if it is the highest verb in the clause (37), while *seem* and *look* do not (38).

(37) a. George isn't happy
b. Is Martha Scottish?

(38) a. *George seems'nt happy.
b. George doesn't seem happy.
c. *Looks Martha Scottish?
d. Does Martha look Scottish? (Cowper 2010: 9)

From these and other data, Cowper concludes that copular *be* is like auxiliary *be* and is inserted via *be*-support. This *be*-support is comparable to Bjorkman's analysis of auxiliaries except explicitly for copular sentences like (39) (adapted from Cowper 2010: 10).

(39) Roberta was happy.



Since there is no lexical verb in the sentence (initially), there is an unvalued [V] feature on T which triggers *be*-support, which is similar to the explanation by Benmamoun reviewed above. V is inserted at T which receives its tense from T and then at spell-out, selects the appropriate Vocabulary item with these features (*was* in (39)).

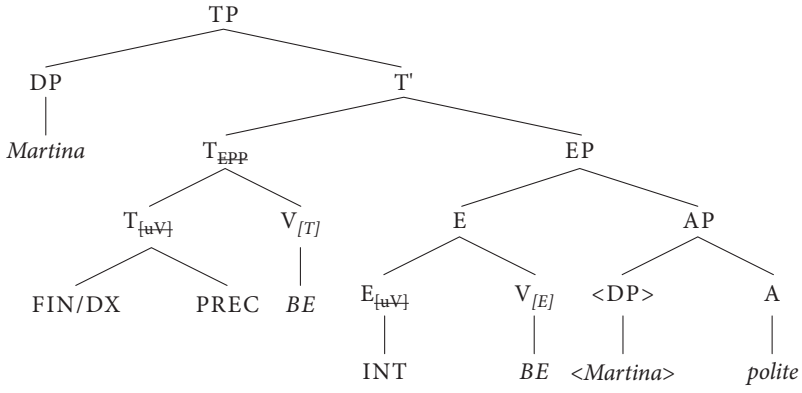
Cowper notes that some instances of *be* have more meaning than the example in (39). Consider the examples in (40)–(41).

(40) a. Martina was being polite.
b. Wayne was rude three times.

(41) a. Martin was lethargic all day.
b. Martin was deliberately lethargic all day. (Cowper 2010: 10–11)

Both sentences in (40) seem to be eventive and agentive. Example (41a) is eventive but not agentive while (41b) becomes agentive with the included adverb. Cowper explains how the notion of *be*-support applies in these examples. The syntax in (40a) is modeled in (42).

(42)



In Cowper's articulation of the Inflectional Domain, the Event phrase (EP), contains viewpoint aspect and is only present in eventive clauses (therefore not in stative clauses). FIN/DX stands for Finite/Deixis and PREC stands for Precedence, but these are not relevant for the current discussion. Cowper accounts for the two *be*-verbs in (40a) explaining that E bears the feature Interval (INT) which, in addition to tense, has an uninterpretable V feature which is stranded by the lack of the lexical verb. Since both T and E have an uninterpretable V feature, *be*-support applies twice, and only the higher one is valued by Tense. By contrast, in (40b), E does not have the Interval feature and thus there is no need for double *be*-support. Cowper states that the presence of the Event head in these sentences accounts for the eventive interpretation (Cowper 2010: 11).

The agentive external arguments in (40a) and (40b) are found, according to Cowper, in the specifier of Voice, following Kratzer (1996). In sentences like (41a) which do not have an agentive interpretation, Cowper explains that it is due to the lack of VoiceP above the AP (Cowper 2010: 11). The fact that copular sentences can have an eventive reading has been noticed by others as well. This will be taken up in our discussion of syntactic and semantic variation in CH copular sentences in Chapter 4.

The different perspectives on the primary role of copulas is largely due to the complexity of copular systems recognized in different languages. One means of sorting out the complexity is by looking for similar predicate types across languages which may determine the distribution of copulas. In their typological studies of non-verbal predication, Devitt (1994), Stassen (1997), and Pustet (2003) have tried to find patterns which give some indication of how languages use copulas. This search has inevitably led to interesting questions about non-verbal predicate types as well as the challenge of lexical categories. Section 2.3 provides a summary of these issues.

2.3 Predicate types and the challenge of lexical categorization

A description of predication necessarily includes an understanding of lexical categorization. This issue has led to considerable debate on universals of parts-of-speech systems (Hengeveld 1992; Pustet 2003; Stassen 1997; Baker 2003; Croft 1991a; Haspelmath 2007, 2012; Croft and Baker 2017). Broadly speaking, constituents of language can be categorized into open classes and closed classes. Open classes, such as nouns, adjectives, verbs, and adverbs, have no limit to their ability to expand with new members. Closed classes, such as adpositions, determiners, complementizers, quantifiers, and auxiliaries generally do not accumulate additional lexical items.[7] Languages differ to some extent with respect to which categories are open and which are closed. Closed class lexical items can be further classified into functional or grammatical categories; open class lexical items can be classified into lexical categories.

Within this broad classification, individual parts-of-speech have vast cross-linguistic variety leading to considerable debate as to how to define them. The lexical categories *verb, noun*, and *adjective*, often treated as categorical primitives, are deceptively complex when trying to identify features that are true of these categories across languages. Many attempts at segmenting the individual categories have been made based on syntactic, semantic, morphological, and pragmatic criteria.

One perspective in the functional-typological tradition defines lexical categories by prototypical representations with fuzzy boundaries (Stassen 1997; Croft 2001; Pustet 2003). Croft (1991a) uses a markedness matrix which relates the semantics of a lexical item to its pragmatic function as a way to explain the parts-of-speech issue. This matrix is reproduced in (43):

(43) Croft's lexical categorization matrix

	Reference	**Modification**	**Predication**
Objects	UNMARKED NOUNS	genitive, adjectivalizations, PPs on nouns	predicate nominals
Properties	deadjectival nouns	UNMARKED ADJECTIVES	predicate adjectives
Actions	action nominals, complements, infintives, gerunds	participles, relative clauses	UNMARKED VERBS

(Croft 1991a: 67)

7. This statement ignores the well-documented phenomena of lexical items developing into grammatical markers over time and even becoming lexical again. (van Gelderen 2011).

Givón argues that the difference between categories is found in the internal temporal quality of the constituents (i.e. time-stability) (Givón 1990: Chapter 3). Verbs denote short-term dynamic events, adjectives depict states or properties of varying degrees of time-stability, and nouns are the most time stable and denote things. Baker (2003) criticises this approach by citing the examples in (44).

(44) a. God exists.
b. God loves Abraham and Sarah.
c. God sustains the universe.
d. The square root of four equals two (Baker 2003: 32)

The verbs in these sentences are not dynamic or unstable temporally. He presents counterevidence for nominal (45) and adjectival (46) predicates as well.

(45) Chris is the declarer.

(46) The traffic light is red (Baker 2003: 32).

Baker acknowledges that these examples do not refute the functionalist claim, since the explanation of functionalists is that these examples are simply not prototypical. Baker provides a different system of classification, based on structural criteria, which account for each of the non-prototypical examples, however. (Baker 2003: 33).

According to the generative tradition, categories are not primitives of language, but are composites of grammatical features (Radford 1997). Jackendoff presents the following feature sets which correspond to the traditional parts-of-speech labels in (47).

(47) +N –V= noun (Jackendoff 1977)
–N +V= verb
+N +V= adjective
–N –V= adposition

The representation in (47) demonstrates that adjectives have some noun-like features and verb-like features. Adpositions, however, have neither. Baker (2003) attempts to provide explicit definitions of lexical categories which are not based on prototypes with fuzzy boundaries but concrete formal criteria. He provides both syntactic and semantic definitions for the main lexical categories in language.

Baker defines the noun saying, "X is a noun if and only if X is a lexical category and X bears a referential index, expressed as an ordered pair of integers." His semantic definition is "Nouns and only nouns have criteria of identity, whereby they can serve as standards of sameness" (Baker 2003: 95). The standard of sameness

is important for Baker because it is fundamental to referring entities that they can designate the same entity time after time.

Baker defines the verb stating, "X is a verb if and only if X is a lexical category and X has a specifier" (Baker 2003: 23). Both aspects of this definition must be true in order for the item in question to be considered a verb. Functional categories, for instance, have specifiers. Tenses, determiners, complementizers, and degrees can take specifiers but it is not an important characterising feature for them (48).

(48) a.I predict [Kate *will* eat spinach] (tense)
I prefer [(*Kate) *to* eat spinach]
b.I saw [Julia-'s picture of Paris] (determiner)
I saw [(*Julia) *the/a* picture of Paris]
c.I wonder when ø Julia went to Paris] (complementizer)
I think [(*when) *that* Julia went to Paris]
d.Nicholas is [two inches *too* tall] (degrees)
Nicholas is [(*two inches) *so* tall] (Baker 2003: 25)

The way functional categories have specifiers is different from the way verbs have them as well. Tenses and complementizers acquire their specifiers via movement of some constituent within their complement, whereas verbs get their specifier from direct combination with some other independent phrase (Baker 2003: 25). The second criterion in Baker's definition is that verbs are *lexical*. This is distinct from being a functional category. Lexical categories have their own internal semantics which affect their distribution and meaning.

Recently, Baker and Croft (2017) have reviewed the current status of lexical categorization in both formal and functional traditions and stated that both traditions have depended mostly on the structuralist practices of early 20th century linguistics (Baker & Croft 2017: 1). In this article they feature the strengths and weaknesses in the approaches to lexical categorization from both traditions. They conclude the article calling for consistency in distributional tests that are used within and across languages. This will demonstrate the strength or weaknesses inherent in individual parts-of-speech systems.

The pursuit of a universal determination of categorical primitives is further complicated by the semantic nuances within current categories. Adjectives have presented considerable difficulty in this regard. Adjectives have been shown to behave differently when they are predicates of copular sentences based on internal semantics. Consider examples (49)–(50).

(49) *El niño es alto*
the boy is tall
'The boy is tall.'

(50) *El vaso está lleno*
the glass is full
'The glass is full.'

Gumiel-Molina and Pérez-Jiménez (2012) link the different copulas used in (49)–(50) to the gradability properties of the adjectives. Adjectives can be distinguished by their ability to predicate relative or absolute properties of their subjects. Relative properties establish a comparison class between individuals (as in (49) where the boy is tall by comparison to other children) while absolute properties establish a comparison class with respect to potential instances of the same subject (as in (50) where the glass is full compared to other possible states of the same glass). This is related to but distinct from the well-known stage level/individual level distinction which has been observed for adjectives like (51)–(52).

(51) Firemen are available. (stage)

(52) Firemen are altruistic. (individual)

This kind of variability continues to make the pursuit of a universal determination of lexical categories more difficult. One approach to lexical categories sorts through some of these challenges by claiming that words do not inherently possess innate categories, but acquire them through compositional processes. This is found most prominently in the constructivist approach of Distributed Morphology.

Constructivist approaches to morphosyntax–being situated in more formal approaches to language–distinguish themselves from lexicalist approaches by denying the existence of pre-categorized "words" in an innate Lexicon. This lexicalist/constructivist divide exists because there are different opinions about how much information is contained in the syntax versus in the lexical items themselves. One locus of disagreement between these approaches is whether or not the "word" holds a privileged status as far as the grammar is concerned. The constructivist position assumes that morphological structure is syntactic structure and that, contrary to the lexicalist position, there is not a special generative system called a "Lexicon" which feeds the syntactic system (Embick & Noyer 2007: 2). These approaches have been reviewed by Ramchand (2008) who divides the lexicalist approach into those who adopt a static lexicon versus those who adopt a dynamic lexicon. The static lexicon view is characterized by the view that inside the lexicon the argument structure is determined with no lexicon-internal manipulations prior to insertion into the syntax (Baker 1988). The dynamic lexicon approach allows for some lexicon-internal manipulations leaving less work for the syntax (Levin & Rappaport Hovav 1995).

The constructivist perspective can equally be divided based on similar criteria. A more extreme constructivist approach states that lexical roots are merely

conceptual, encyclopedic information which contain no syntactically relevant information; not even categorical information. The reason that some clauses are ungrammatical (e.g. causitivizing some intransitives like **John slept the baby*) is due to convention, not to inherent restrictions in the lexical item itself. The conceptual root combines with abstract functional heads which dictate its configuration. Of course, it is necessary for those who adopt this approach to explain what kind of information is contained in these conceptual "roots." Within this constructivist approach, Ramchand distinguishes between the naked roots view and the well-dressed roots view (Ramchand 2008: 17). As its name suggests, the naked roots view holds that there is no syntactically relevant information in a root. The well-dressed roots view states that roots may encode some information such as lexical category and constituent selection/composition information. This information is then mapped into the syntax. As Ramchand notes, this latter perspective is "virtually indistinguishable in practice from the Static Lexicon view" and that "the majority of researchers in the 'decompositional' or 'constructivist' camp actually fall between the two extremes described above" (Ramchand 2008: 17).

Lexical categorization in a constructivist view, then, principally involves roots and categorizers. Take the root √RENT for example. This root can be categorized as a verb (53), a noun (54), or an adjective (55).

(53) Are you going to rent this apartment?

(54) He paid the rent last week.

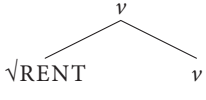
(55) I found the rent check under the couch.

In DM, lexical categories are determined based on the Categorization Assumption.

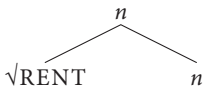
(56) Categorization Assumption (CA): Roots cannot appear (cannot be pronounced or interpreted) without being *categorized*; they are categorized by merging syntactically with category-defining functional heads.
(Embick & Marantz 2008: 6)

The CA means that the same root can be merged with different categorizers (displayed as *v, n*, or *a*) to give rise to what have informally been referred to as lexical categories. Examples (53)–(55), then, involve the same root in the syntax, but are categorized differently as (57)–(59) respectively.

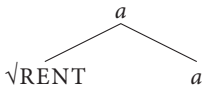
(57)



(58)

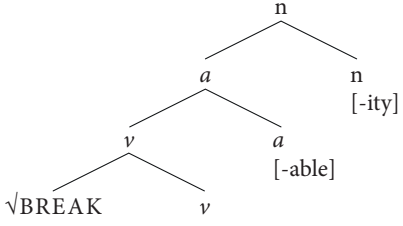


(59)



Often, categorizers have their own overt exponents which give us the derivational morphology commonly found in natural languages. Take the word *breakability* in (60).

(60)



A natural question for this approach is what exactly is contained in roots and what, if any, category selection constraints exist for them. The status of roots is far from being resolved but there are a number of approaches. One view states that both the phonological content and semantic interpretation are added later and that roots begin as a labels in the syntax (e.g. √49 for √RENT), which is like an address which "serves as the linkage between a set of instructions for phonological realization in context and a set of instructions for semantic interpretation in context" (Harley 2014: 226). Another view holds that some phonological representation is part of the primitive make-up of roots (Embick 2015: 8). This phonological representation sometimes requires an index which uniquely identifies it, especially in the case of homophony between roots as in $\sqrt{\text{BANK}}_{254}$ (financial institution) and $\sqrt{\text{BANK}}_{879}$ (shore of a river) (Embick 2015: 8). In this view it is also possible that some morphological information, such as declension type or grammatical gender, could be present at the most primitive level.

For the reasons given in Harley (2014) I adopt the view that roots are just syntactic indices which gain semantic and phonological interpretation at their respective stages in the derivation. This compositional view of lexical categorization does not have an significant impact on the overall argument presented in the present volume, especially since the copula is not considered as containing a root. More on this will be discussed in Chapter 4.

The challenge of determining lexical categories cross-linguistically has not necessary prevented progress in determining cross-linguistically viable predicate

types. Higgins (1979) developed an important taxonomy of copular sentences which many subsequent studies rely on. He distinguishes four types of copular sentences, namely, predicational, specificational, identificational, and identity (1979: 204–293). Examples of these types are as follows:

(61) a. Predicational: John is tall.
b. Specificational: What Levi likes is to play with toys.
c. Identity: Samuel Clemens is Mark Twain.
d. Identificational: She is the professor.

Higgins places great importance on the concept of referentiality in distinguishing these sentence types. In a predicational sentence (61a), the subject will be referential (referring to an entity in the universe of discourse) and the predicate will be Predicational (1979: 196). He says, "The paradigm examples of Predicational copular sentences are those of the kind *John is tall*, where the subject refers to a well-defined, non-abstract object and the predicate complement is an adjective" (1979: 224). In other words, the subject has to be identifiable to the hearer and the predicate complement must project a property upon that subject. Higgins acknowledges the difficulty of identifying the sentence type when the predicate complement is a noun phrase. He says, "I still have discovered no satisfactory way of tackling this problem, and this may be a reflex of some deeper conceptual tangle." (1979: 224).

Higgins also examines the specificational sentence type (61b) in detail. He says, "The Specificational reading in a sense merely says what one is talking about: the Subject in some way delimits a domain and the Specificational predicate identifies a particular member of that domain" (1979: 198). He relates the subject of a specificational sentence to the heading of a list and calls it "Superscriptional" (1979: 203). A specificational sentence, then, has neither a referential subject nor a referential predicate complement. In example (61b) *What Levi likes* is the subject and does not identify anything in the universe of discourse; thus it is non-referential. *To play with toys* is the predicate and is also non-referential. This is Higgins' definition of a specificational sentence.

Concerning Identity sentences (61c), he says, "We see that the subject and the predicate complement of an Identity sentence must be Referential, that is, deictics, proper names, pronouns, or certain kinds of definite noun phrase" (1979: 245). An Identity sentence, then, has two referential noun phrases which refer to the same entity. *Samuel Clemens is Mark Twain* is clearly an Identity sentence. Finally, he describes Identificational sentences (61d) as those which are used typically "for teaching the names of people or things," such as, *That man is Joe* (1979: 220). The subject of this sentence is usually a demonstrative of some kind (deictic, not anaphoric).

Higgins summarises the Subject-Predicate structure of his four copular sentence types in (62).

(62) Higgins' four copular sentence types (1979: 246)

Type	Subject	Predicate
Identificational	Referential	Identificational
Identity	Referential	Referential
Predicational	Referential	Predicational
Specificational	Superscriptional	Specificational

Since Higgins produced this taxonomy, others have used, critiqued, and modified it (Rapoport 1987; Hengeveld 1992; Stassen 1997; Pustet 2003; Mikkelsen 2011).

The most thorough treatment classifying non-verbal predicate types is found in the typological tome of Stassen (1997). In this study, Stassen makes a fundamental division between Identity predicates and Ascriptive predicates. Though many debate parts of Higgins' taxonomy, the fundamental distinction between identity (or equative) and predicational (Ascriptive) constructions has received considerable consensus. To help describe these predicate types Stassen uses the metaphor of "mental files" which have their own labels and content. Identity predicates, composed of both specificational and equational clauses reorganize the files whereas predicational (Ascriptive) clauses only add new content to pre-existing files. There are several ways to classify Ascriptive predicates. Stassen subdivides all Ascriptive predicate expressions into four categories: event (or action/state) predicates, class-membership predicates, locational predicates, and property-concept predicates (Stassen 1997: 18). These categories correspond respectively to the English syntactic categories: intransitive verbal predication, nominal predication, prepositional predication, and adjectival predication. Stassen's semantic categorization is to be preferred since, for example, the semantic expression of locational predication is common to all languages even though it may not be expressed by means of prepositions as in English.

Stassen distinguishes these categories in large part by how sensitive they are to time. These categories occupy different positions on a scale of time stability. The least time stable category of predicates is made up of actions or events. These are usually lexicalised as verbs. On the other extreme, the most time stable category of predicates is made up of class-membership predicates. These are usually lexicalised as nouns. The noun *car* is a fixed concept that does not have any ingressive or transient notions. The verb *eats*, however, is a very transient word having very little time stability.

The category of property-concept predicates, according to Stassen, occupies an intermediate state between the two extremes of events and classes which is

hard to describe. In fact, he suggests that these predicates may not form a semantic category at all. He says,

> An alternative might be to split up the property-concept words, and to associate the various types of these items with either one of the extreme ends of the scale. For the less time-stable property-concepts (such as 'ill', 'hungry', 'sad', and the like) one might envisage a common classification with the most time-stable subcategory of events – that is, STATES such as 'to sit' or 'to be called'. Alternatively, the more time-stable properties (such as, for instance, 'wooden', 'English', or 'female') might be viewed as constituting a subclass of class-membership predicates.
>
> (Stassen 1997: 16–17)

Stassen concludes that the status of a property-concept category is not a universal, homogenous, cognitive category like the event and class-membership categories. The data he has collected demonstrate this point. He says, "The cross-linguistic encoding properties of property-concept predicates clearly point to a status of a sort of 'no man's land' between the two poles of event ('verbal') and class ('nominal') encoding" (1997: 17). That being said, he still presents some identifying criteria for property-concept words. He presents this working definition:

(63) A prototypical property-concept predicate is a predicate which
  a. is intermediately time stable;
  b. is non-volitional; and
  c. does not refer to kinds (1997: 17).

These criteria are helpful for distinguishing between property-concept predicates from subclasses of the other categories. (63a) has already been discussed above. (63b) distinguishes a property from what Stassen calls a state predicate. For example:

(64) a. *John is sitting on the couch*
  b. *John is sad*

Because (64a) involves a degree of volition on the part of the subject, it is closer to a state than a property. (64b) does not involve volition and can be labelled a property (1997: 17). Sentences such as *Mary was rude three times yesterday* are problematic for this analysis, however. Finally, (63c) keeps properties distinct from class-membership predicates. The examples Stassen uses to distinguish these are:

(65) a. *Bill is Irish*
  b. *Bill is an Irishman* (1997: 18)

He explains, "Although both classes of predicates denote properties, they do so in a crucially different fashion" (1997: 18). (65a) is a property-concept predicate because it is predicating one simple quality upon its subject. (65b), on the other

hand, is saying much more than (65a). (65b) is specifying a set of complex features, a class of distinct qualities, into which the subject fits.

Though it seems the major categories of ascriptive predicates (event, property-concept, class-membership, locational) are already quite nuanced, there are multiple subclasses within these categories which receive formal encoding in the world's languages. It is necessary to distinguish these subclasses since they receive formal distinction in some languages. What is most important is differentiating the most basic predicate types, namely: Identity predicates and Ascriptive predicates.

At the heart of Stassen's typology of intransitive predication is an identification of the patterns which languages use to accomplish predication. He describes the many different formal expressions of intransitive predication among the world's languages as *strategies*. For example, in Tagolog there appears to be one uniform strategy for encoding events, class-membership, property-concepts, and location: the topic constituent *ang*.

(66) Tagalog
  a. *Kumanta ang mga bata*
     sang TOP PL child
     The children sang [=event]
  b. *Bago ang bahay*
     new TOP house
     The house is new [=property-concept]
  c. *Artista ang babae*
     actress TOP woman
     The woman is an actress [=class-membership]
  d. *Nasa kusina ang mesa* (Stassen 1997: 24)
     LOC kitchen TOP table
     The table is in the kitchen [=location]

In Guaraní, a Tupi language from Paraguay, however, there are three distinct strategies for encoding the various predicate types. Event predicates as well as property concepts require the prefixation of agreement markers, class membership predicates have no supporting item (i.e. zero copula), and locational predicates require the presence of a full lexical support verb:

(67) Guaraní
  a. *O-puká*
     3SUBJ-laugh
     He laughs/laughed [=event]
  b. *Sé -rakú*
     1OBJ -warm
     I am warm [=property-concept]

c. *Né soldádo*
2SG soldier
You are a soldier [=class-membership]

d. *O -imé okế mế* (Stassen 1997: 25)
3SUBJ-be door at
He is at the door [=location]

In English, there are only two encoding strategies:

(68) English
a. *John walks* [=event]
b. *John is tall* [=property-concept]
c. *John is a teacher* [=class-membership]
d. *John is at home* [=location] (Stassen 1997: 25)

The distribution in English is between verbal and non-verbal predicates. In these examples, the strategy employed by the event predicate allows subject agreement by adding the suffix – *s* while the other categories do not add this suffix. The other three categories utilize the same strategy which requires the presence of a supportive item, a copula, which assigns subject agreement and tense morphology.

Finally, in Biloxi, a Siouan language, there are also two encoding strategies:

(69) Biloxi
a. *Ay-toho* [=event]
2SG-fall
'You fall'

b. *Ay -i$^{N'}$hi^{N} ṭota$^{N'}$* [=property-concept]
2SG-brave
'You are brave'

c. *Nk-sịto* [=class-membership]
1SG- boy
'I am a boy'

d. *Éwa n-yuḳế'-di* [=location] (Stassen 1997: 26)
there 1PL-stand-DUR
'We were there'

The two strategies Biloxi uses have a different distribution than those in English. English splits the distribution of strategies based on the verbal and non-verbal distinction, but Biloxi splits at the locational and non-locational distinction. Example (69d) is separated formally from (69a), (69b), and (69c) because its predicate *Éwa* (*there*) cannot be encoded by prefixed agreement morphemes.

These different distributions lead to an important observation. Often English, or another dominant western language, can function as a standard with which to

measure other languages. Sometimes this can result in unwittingly adopting certain features as standard, such as a verbal/non-verbal distinction. This distinction may not be as important in other languages as it is in English, however.

This taxonomy is helpful for comparing semantic classes of predicate types cross-linguistically. The formal means of accomplishing these types of predicate will vary from language to language, but Stassen (starting with Higgins 1979) has provided a very thorough and helpful means of distinguishing predicate types. With this foundation, I now turn to describing non-verbal predication in Classical Hebrew.

CHAPTER 3

Non-verbal predication in Classical Hebrew

As reviewed in Chapter 2, the previous approaches to this subject have added much to the collective knowledge about copular sentences. The description in the present chapter will take the discussion forward by providing a description of the different forms of CH copular sentences as well as some new insights for those constructions that have remained enigmatic for hebraists. Section 3.1 will describe the syntax and semantics of the CH verbless clause. Section 3.2 will provide the data and syntactic descriptions of the copula *hyh* in CH copular sentences. Section 3.3 will introduce the verbless clauses with PRON in CH which will receive more thorough evaluation in Chapter 4.

3.1 Verbless clauses

CH encodes identity predicates (1)–(2) and class-membership predicates (3)–(5) with verbless clauses.

(1) Judges 21:11
וְזֶה הַדָּבָר אֲשֶׁר תַּעֲשׂוּ
wə-zeh had-dāḇār ʾăšer taʿăśû
CONJ-this ART-thing which 2MPL.do.IPFV
This (is) the thing that you will do.

(2) Judges 4:2
וְשַׂר־צְבָאוֹ סִיסְרָא
wə-sar ṣəḇāʾô sîsrāʾ
CONJ-commander.GEN army.3MSG Sisera
The commander of his army (was) Sisera.

(3) 1 Kings 11:17
וַהֲדַד נַעַר קָטָן
wa-hăḏaḏ naʿar qāṭān
CONJ-Hadad boy young
Hadad (was) a young boy.

(4) 1 Samuel 17:33
וְהוּא אִישׁ מִלְחָמָה מִנְּעֻרָיו
wə-hûʾ ʾîš milḥāmâ minnəʿurâw
CONJ-he man.GEN war from.youth.3MSG
He (was) a man of war from his youth.

(5) 2 Samuel 17:8
וְאָבִיךָ אִישׁ מִלְחָמָה
wə-ʾāḇîkā ʾîš milḥāmâ
CONJ-father.2MSG man.GEN war
Your father (is) a man of war.

These examples demonstrate that in both present (1), (5) and past (2), (3), (4) tense, the verbless clause is used.[1] Example (6) demonstrates that verbless clauses are compatible with temporal adverbs and therefore have a tense projections (i.e. they are not tenseless).

(6) 2 Samuel 23.14
וְדָוִד אָז בַּמְּצוּדָה
wə- ḏāwīḏ ʾāz bam-məṣûḏâ
CONJ- David then in.ART-stronghold
David (was) then in the stronghold

Examples (7) and (8) provide evidence that both subject and predicate can participate in *wh*-movement, implying that there is a CP layer which does not require a verb.

(7) 1 Samuel 3.17
וַיֹּאמֶר מָה הַדָּבָר אֲשֶׁר דִּבֶּר אֵלֶיךָ
way -yōʾmer mâ had-dāḇār ʾăšer dibber ʾēlêḵā
CONJ -said.PRET.3MSG what ART-thing which spoke.3MSG to.2MSG
He said, "What (is) the word that he spoke to you?"

(8) 1 Samuel 19.22
וַיִּשְׁאַל וַיֹּאמֶר אֵיפֹה שְׁמוּאֵל וְדָוִד
way-yiš'al way-yōʾmer ʾêp̄ô šəmûʾēl wə-ḏāwīḏ
CONJ-asked.PRET.3MSG CONJ-said.PRET.3MSG where Samuel CONJ-David
He asked and said, "Where (are) Samuel and David?"

The verbless clause can be headed by a relative pronoun, which also implies a CP layer (9).

1. Though rare, it is also possible for copular sentences in future tense to use a verbless clause. This will be discussed in Chapter 4.

(9) 1 Kings 18.3
וַיִּקְרָא אַחְאָב אֶל־עֹבַדְיָהוּ אֲשֶׁר עַל־הַבָּיִת
way-yiqrāʾ ʾaḥʾāḇ ʾel ʿōḇaḏyāhû ʾăšer ʿal hab-bāyiṯ
CONJ-called.PRET.3MSG Ahab to Obediah who over ART-house
Ahab called to Obadiah who (was) over the household.

These examples all contrast with a CH small clause (10) which is by definition tenseless and without a CP layer.

(10) Job 19.11
וַיַּחְשְׁבֵנִי לוֹ כְצָרָיו
way-yaḥšəḇēnî lô ḵə-ṣārâyw
CONJ-consider.PRET.3MSG.1CSG to.3MSG as-enemy.3MSG
And he considered me as his enemy

Much of the previous research on verbless clauses in CH has been concerned primarily with identifying default and marked word order for these constructions (Andersen 1970; Linton 1983; Miller 1999). One of the goals of Andersen (1970) is to correct the view that the normal sequence for verbless clauses is Subject-Predicate. He lists and categorizes every verbless clause in the Pentateuch (first five books of the Hebrew Bible) and presents a detailed analysis of these data. He argues that it is possible to formulate a set of rules to describe all the kinds of verbless clauses which are possible in Hebrew (1970: 18). He lists all the possible patterns of clauses distinguished by the function of the clause in relation to the sentence (namely independent, coordinate, subordinate, or adnominal), the presence or absence of "marginal" (adjunct) elements, the continuous or discontinuous nature of the subject and the predicate, as well as the internal structure of a compound subject or predicate (1970: 28–30). The evaluation of all these features, Andersen argues, is necessary for a thorough explanation of the sequence of subject and predicate. Andersen's data show that the majority of declarative verbless clauses in the Pentateuch have the sequence Subject-Predicate. The sequence Predicate-Subject exists in about one third of the examples, which suggests that calling these examples exceptions is not accurate (1970: 31).

Decaen (1999) provides the only study of verbless clauses in CH from a formal perspective. From the Government and Binding framework of generative grammar he argues that where there are inflectional demands, movement occurs to license those demands. Decaen says that the verbless clause results when there are no inflectional demands of Tense, Aspect, or Mood in a given clause. Where no inflection needs realization in a predication, no verb is necessary (Decaen 1999: 125).

Zewi has written extensively on the verbless (nominal) clause (Zewi 1994, 1996a, 1996b, 1999a, 1999b, 2000, 2013) and especially the role of the pronoun in the tripartite nominal clause (to be discussed in Chapter 4). She also discusses

in detail how to discern subject and predicate in nominal sentences. In her latest article, she discusses the issue of time in nominal sentences and says, "Time and aspect in nominal clauses are commonly expressed at all stages of the language by the finite verb *hyh*…In Biblical Hebrew its use in nominal clauses for the expression of time and aspect is optional" (Zewi 2013: 836; see also Zewi 1999a). She acknowledges that the expression of time is often left to context, especially in circumstantial and other subordinate clauses (Zewi 2013: 836).

Excursus on so-called "nominal clause": A brief history of CH terminology

The history of research on verbless clauses in CH, summarized well in Miller (1999), reveals some terminological inconsistency, largely due to the philological approach which has been much more dominant in the field than a strictly linguistic approach. A verbless predication which has as its predicate a noun, adjective, or prepositional phrase, has often been called a *nominal clause* in the history of Hebrew studies. The origin of this expression is linked to a fundamental division of CH clause types. This division is between nominal and verbal clauses.

The nominal/verbal clause division in CH syntax found its inception in the comparison of CH syntax to Arabic syntax as described by medieval Arabic grammarians. The first grammarian to divide clauses based on the Arabic division was the hebraist E. Kautzsch. Hebrew grammarian Wilhelm Gesenius and E. Rüdiger, Gesenius' student and reviser, did not consider the "nominal clause" a unique syntactic category. The 1853 edition of Gesenius' grammar, revised by Rüdiger, shows no explicit division between verbal and nominal clauses. They believed that the verbless clause was the result of an omitted yet implied *hyh* (Gesenius 1853: 262). H. Ewald also made no explicit distinction between clause types. He only mentioned that there is no need for a copula in the clause to join subject and predicate (Ewald 1827: 632).

Not until Kautzsch's revision was the Arabic grammatical distinction between nominal and verbal clauses introduced into CH syntax. Kautzsch introduced this distinction in the 22nd edition of Gesenius' grammar (Gesenius 1878). By introducing this structuring principle, he commandeered the definitions from the Arabic grammarians and applied them to CH (Groß 1999: 22), namely, the label "verbal clause" was used for every clause beginning with a verb and "nominal clause" for every clause beginning with a noun.

Hebraists such as C. Brockelmann (1953) and C. Albrecht (1887) followed Kautzsch in his structural division, though they added refinements. In two articles on the subject, Albrecht helped refine the classification (Albrecht 1887, 1888). He stated that there are indeed two word classes–nominal and verbal–but their status is determined by the type of predicate. A verbal sentence, he argues, is one that has

a noun as its subject and a verb as its predicate. A nominal sentence is one that has a noun as both subject and predicate (Albrecht 1887: 218).

Kautzsch agreed with Albrecht's refinements that the predicate determines the clause type and this viewpoint is reflected in the 25th and later editions of Gesenius' grammar:

> Jeder Satz, dessen Subjekt und Prädikat in einem Nomen oder dem Äquivalent eines solchen (d.i. insbesondere einem Partizip) besteht, heiβt ein *Nominalsatz*…. Jeder Satz, dessen Subjekt in einem Nomen (resp. in einem *b* der Verbalform mit enthaltenen Pronomen), dessen Prädikat in einem Verbum finitum besteht, heiβt ein *Verbalsatz*. (Gesenius 1909: 470–471)

> Every sentence, the subject and predicate of which are nouns or their equivalents (esp. participles), is called a *noun-clause*…. Every sentence, the subject of which is a noun (or pronoun included in a verbal-form) and its predicate a finite verb, is called a *verbal- clause*. (Gesenius 1910: 450)

The most recent edition of Gesenius (GKC) says:

> The above distinction between different kinds of sentences–especially between noun and verbal-clauses–is indispensable to the more delicate appreciation of Hebrew syntax (and that of the Semitic languages generally), since it is by no means merely external or formal, but involves fundamental differences of meaning. Noun-clauses with a substantive as predicate, represent something *fixed, a state* or in short, *a being* so and so; verbal-clauses on the other hand, something *moveable* and *in progress*, an *event* or *action*. The latter description is indeed true in a certain sense also of noun-clauses with a participial predicate, except that in their case the event or action (as distinguished from that expressed by the verbal-clause) is of a fixed and abiding character. (Gesenius 1910: 450–451)

The binary division of clauses based on the predicate is a significant deviation from what the Arabic grammarians initially intended. In his article devoted to the topic of nominal and verbal sentences in the Arab grammarian tradition Levin says, "The classification of a sentence as either nominal or verbal is determined by the *cāmil* [agent] which affects its subject, and not by the category of the part of speech to which its predicate belongs" (Levin 1985: 124). Some CH scholars (e.g. Schneider 1974: 159–67 and Michel 1960) followed the Arab grammarians in this regard, thus rejecting the modifications by Albrecht.

P. Joüon followed Kautzsch's division (viz. that clause type is determined by the predicate) in his *Grammaire de l'Hébreu biblique* (Joüon 1947: 466). Muraoka's revision of Joüon codified Kautzsch's evolved distinction and made the definitive statement, "A clause normally consists of a subject and a predicate. Depending on whether the predicate is a noun or a verb, a clause is said to be *nominal* or *verbal*" (Joüon & Muraoka 2005: 561). This short excurses demonstrates

that the term *nominal clause* in CH has an interesting history which originates and then departs from the Arab grammarian tradition. Since the term *nominal clause*–with its new CH-specific definition–is maintained in many of the most popular grammars of CH, it has persisted. The term verbless clause is preferred over nominal clause in this study. The nominal/verbal clause division reviewed above is rejected as an insufficient way to classify predicates, especially since it stands out as largely idiosyncratic and inconsistent with how sentence types are classified cross-linguistically.

3.2 Hyh clauses

Clauses which use a copula are also used for identity (11)–(12) and class membership (13)–(14) predicates.

(11) 1 Samuel 14:49
וַיִּהְיוּ בְּנֵי שָׁאוּל יוֹנָתָן וְיִשְׁוִי וּמַלְכִּי־שׁוּעַ
way-yihyû bənê šāʾûl yônāṯān wə-yišwî û-malkîšûaʿ
CONJ-COP.PRET.3MPL sons.GEN Saul Jonathan CONJ-Ishvi CONJ-Malchishua
The sons of Saul were Jonathan, Ishvi, and Malchi-shua.

(12) Joshua 20:9
אֵלֶּה הָיוּ עָרֵי הַמּוֹעָדָה לְכֹל | בְּנֵי יִשְׂרָאֵל
ʾēlleh hāyû ʿārê ham-môʿāḏâ ləḵol bənê yiśrāēl
these COP.3CPL cities ART-appointed to.all sons.GEN Israel
These were the cities which were appointed for all the sons of Israel.

(13) Judges 11:1
וְיִפְתָּח הַגִּלְעָדִי הָיָה גִּבּוֹר חַיִל
wə-yipṯāḥ hag-gilʿāḏî hāyâ gibbôr ḥayil
CONJ-Jephthah ART-Gileadite COP.PFV.3MSG warrior strong
Jephthah the Gileadite was a strong warrior.

(14) 2 Samuel 14:27
הִיא הָיְתָה אִשָּׁה יְפַת מַרְאֶה
hîʾ hāyəṯâ ʾiššâ yəpaṯ marʾeh
she COP.3FSG woman beautiful.GEN appearance
She was a woman of beautiful appearance.

The majority of research on the verb *hyh* has stated that it functions asa semantically-empty copula which serves to license TAM features as well as a full verb with

a variety of interpretations (Gesenius 1910: 454; Joüon 1947: 471; Bartelmus 1982; Niccacci 1990, 1993, 1999; Waltke & O'Connor 1990: 72; Sinclair 1999: 52).[2]

The following list provides the contexts in which the CH verb *hyh* appears to be obligatory. All other contexts in which copular predication exists can be achieved with the verbless clause.

First, *hyh* is inflected for volitive mood with either an imperative or jussive form. Examples (15)–(21) list the forms.

Imperative

הֱוֵה /*hĕwēh*- MSG: 15 examples

(15) Genesis 17.1
הִתְהַלֵּךְ לְפָנַי וֱהְיֵה תָמִים
hiṯhallēḵ ləpānay we-hyê ṯāmîm
walk.IMP before.1SG CONJ- COP.IMP.MSG blameless
Walk before me and be blameless

הֱוִי /*hĕwî*- FSG: 2 examples

(16) Isaiah 16.4
הֱוִי־סֵתֶר לָמוֹ מִפְּנֵי שׁוֹדֵד
hĕwî sēṯer lāmô mip-pənê šôḏēḏ
COP.IMP.FSG shelter for.3MSG from-face.GEN destruction.PTCP
Be a hiding place for him in front of destruction

הֱיוּ /*hĕyû*- MPL: 9 examples

(17) 1 Samuel 4.9
הִתְחַזְקוּ וִהְיוּ לַאֲנָשִׁים פְּלִשְׁתִּים
hiṯḥazzəqû wihyû la-'ănāšîm pəlištîm
be.strong.IMP.MPL CONJ.COP.IMP.MPL to-men Philistines
Take courage and be men, Philistines!

Jussive

יְהִי /*yəhî*-3MSG: 67 examples[3]

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2. Katz (1996) has provided a fascinating etymological analysis which traces the CH copula *hyh* and the pronoun *hû'* back to a pre-Proto-Semitic ancestor which meant 'to live.'

3. These data do not include the imperfective form יהיה (*yihyê*) which is sometimes interpreted as a Jussive. The discussion concerning the volitive status of clause-initial imperfectives is outside the scope of this book. See Niccacci 1987.

(18) Genesis 1.3
וַיֹּאמֶר אֱלֹהִים יְהִי אוֹר
way - yōʾmer ʾĕlōhîm yəhî ʾôr
CONJ-say.PRET.3MSG God COP.JUSS.3MSG light
And God said, "Let there be light."

יִהְיוּ /*yihyû*-3MPL: 21 examples

(19) Qohelet 5.1
וְאַתָּה עַל־הָאָרֶץ עַל־כֵּן יִהְיוּ דְבָרֶיךָ מְעַטִּים
wəʾattâ ʿal hā-ʾāreṣ ʿal kēn yihyû ḏəḇārêḵā məʿaṭṭîm
CONJ-you on ART-earth upon thus COP.JUSS.3MPL words.2MSG few
You are on the earth, therefore let your words be few.

תְּהִי /*təhî*-2FSG: 28 examples

(20) 2 Samuel 24.17
תְּהִי נָא יָדְךָ בִּי וּבְבֵית אָבִי
təhî nāʾ yāḏəḵā bî û-ḇə-ḇêṯ
COP.JUSS.2FSG please hand.2MSG against.1SG CONJ-against-house.GEN
ʾāḇî
father.1SG
Please let your hand be against me and my father's house

תִּהְיֶינָה /*tihyênāh*- 2FPL: 4 examples

(21) Jeremiah 18.21
וְתִהְיֶינָה נְשֵׁיהֶם שַׁכֻּלוֹת וְאַלְמָנוֹת
wəṯihyenâ nəšêhem šakkulôṯ wə-ʾalmānôṯ
CONJ.COP.JSS.2FPL wives.3MPL barren CONJ-widows
Let their wives be barren and widowed

The vast majority of these constructions have the verb *hyh* in clause-initial position.

CH also requires the verb *hyh* to license inchoative aspect. This function often is accompanied by the preposition *lə* prefixed to the predicate nominal as in (22) and (23).

(22) Genesis 24.67
וַיִּקַּח אֶת־רִבְקָה וַתְּהִי־לוֹ לְאִשָּׁה
wayyiqqaḥ ʾeṯ riḇqâ wattəhî lô lə-ʾiššâ
CONJ.took.PRET.3MSG OBJ Rebekah CONJ.COP.PRET.3FSG to.3MSG to-wife
He took Rebekah and she became his wife

(23) 2 Samuel 5.2
וְאַתָּה תִּהְיֶה לְנָגִיד עַל־יִשְׂרָאֵל
wəʾattâ tihyeh lə-nāḡîḏ ʿal yîśrāʾēl
CONJ.2MSG COP.IPFV.2MSG to-leader over Israel
You will become leader over Israel.

In his grammar, Blau writes, "If *hāyā* does not denote mere being, but rather becoming, the predicate may be introduced by *le*" (Blau 1976: 90). Jenni labels this use of *lamed* "*Lamed revaluationis*" (Jenni 2000: 26–53). The perfective/imperfective inflections of this verb are used to distinguish the temporal reference of the sentence.

Though it is far less common, the verb *hyh* also licenses a perfect tense/aspect.[4] The perfective (suffixed) (24) and preterite (25) forms are used in these contexts. The additional temporal deictics in (24) and (25) demonstrate that these examples should have perfect readings rather than a simple past reading.

(24) Genesis 46.34
אַנְשֵׁי מִקְנֶה הָיוּ עֲבָדֶיךָ מִנְּעוּרֵינוּ וְעַד־עַתָּה
ʾanšê miqnē hāyû ʿăḇāḏêḵā min-nəʿûrênû wə-ʿaḏ
men.GEN livestock COP.PFV.3PL servants.2MSG from-youth.1PL CONJ-until
ʿattâ
now
Your servants have been men of livestock from our youth until now.

(25) Joshua 4.9
וַיִּהְיוּ שָׁם עַד הַיּוֹם הַזֶּה
wayyihyû šām ʿaḏ hay-yôm haz-zeh
CONJ.COP.PRET.3MPL there until ART-day ART-this
They have been there until this day.

CH also uses the verb *hyh* in order to license future tense. The marking of future tense is either done with the *wəqatal*[5] (26) or the prefixed form (27) of the verb which can be used to indicate future tense.

(26) Genesis 4.14
וְהָיִיתִי נָע וָנָד בָּאָרֶץ
wəhāyîṯî nāʿ wā-nāḏ bā-ʾāreṣ
CONJ.COP.WQTL.1.SG stranger.PTCP CONJ-foreigner.PTCP in.ART-land
But I will be a stranger and a foreigner in the land.

4. For a review about the perfect as a conflicting category in tense-aspect theories see Ritz (2012).

5. The *wəqatal* is understood to be an irrealis verb conjugation in CH, based on the irrealis qatal (Cook 2012: 249–256)

(27) 2 Samuel 13.13
וְ.אַתָּה תִּהְיֶה כְּאַחַד הַנְּבָלִים בְּיִשְׂרָאֵל
wə'attâ tihyeh kə'aḥaḏ han-nəḇālîm bə- yiśrā'ēl
CONJ.2MSG COP.IPFV.2MSG like.one.GEN ART-fools in- Israel
But you will be like one of the fools in Israel.

It will be argued in Chapter 4 that the verbless clause is the default strategy in past temporal contexts and that if *hyh* is used in these contexts, it is overt for other reasons. There are some examples which appear to mark simple past in order to disambiguate the temporal reference. In these contexts, *hyh* is included because the tense has switched, as in (28).

(28) Joshua 1.17
רַק יְהִיֶה יְהוָה אֱלֹהֶיךָ עִמָּךְ כַּאֲשֶׁר הָיָה עִם־מֹשֶׁה
raq yihyê yhwh ʾĕlōhêḵā ʿimmāḵ kaʾăšer hāyâ ʿim
only COP.IPFV.3MSG YHWH god.2MSG with.2FSG as COP.PFV.3MSG with
mōšeh
Moses
Only YHWH your God will be with you as he was with Moses

Specificational sentences have been described as performing a list function where the subject provides the heading and the predicate lists what belongs under that heading. There seems to be some consistency between the specificational status of clause types and the presence of *hyh*, though not all specificational sentences require an overt form of *hyh*. Examples (29)–(32) illustrate CH specificational sentences.

(29) Genesis 9.18[6]
וַיִּהְיוּ בְנֵי־נֹחַ הַיֹּצְאִים מִן־הַתֵּבָה שֵׁם וְחָם וְיֶפֶת
wayyihyû ḇənê nōaḥ hay-yōṣʾim min hat - tēḇâ
CONJ.COP.PRET.3MPL sons.GEN Noah ART-come.out.PTCP from ART-ark
šēm wəḥām wāyāpeṯ
Shem CONJ.Ham CONJ.Japeth
The sons of Noah who came out of the ark were Shem, Ham, and Japheth.

6. Some of the genealogical records do not have this form, but it may be due to elision, since there are many lists consecutively. Other examples could also be due to the nature of the genealogy as an actual list which does not involve actual predication.

(30) Genesis 5.4
וַיִּהְיוּ יְמֵי־אָדָם אַחֲרֵי הוֹלִידוֹ אֶת־שֵׁת שְׁמֹנֶה מֵאוֹת שָׁנָה
wayyihyû yəmê ʾāḏām ʾaḥărê hôlîḏô ʾeṯ šēṯ
CONJ.COP.PRET.3PL days.GEN Adam after give.birth.INF.3MSG OBJ Seth
šəmōnē mēʾōṯ šānâ
eight hundreds year
The days of Adam after he begat Seth were 800 years.

(31) Genesis 5.11
וַיִּהְיוּ כָּל־יְמֵי אֱנוֹשׁ חָמֵשׁ שָׁנִים וּתְשַׁע מֵאוֹת שָׁנָה
wayyihyû kol yəmê ʾĕnôš ḥāmēš šānîm û-ṯəšaʿ mēʾôṯ
CONJ.COP.PRET.3PL all days.GEN Enosh five years CONJ-nine hundreds
šānâ
year
All the days of Enosh were 905 years.

(32) Joshua 19.25
וַיְהִי גְּבוּלָם חֶלְקַת וַחֲלִי וָבֶטֶן וְאַכְשָׁף
wayhi gəḇûlām ḥelqaṯ wa-ḥălî wā -ḇeṭen
CONJ.COP.PRET.3MSG borders.3MPL Helkath CONJ-Hali CONJ-Beten
wə -ʾaḵšāp̄
CONJ -Achshaph.
Their borders were Helkath, Hali, Beten, and Achshaph.

Sentences referring to the age of a participant provide a striking difference between sentences with an overt copula and those with a zero copula, as illustrated in (33) and (34).

(33) 2 Kings 18:2
בֶּן־עֶשְׂרִים וְחָמֵשׁ שָׁנָה הָיָה בְמָלְכוֹ
ben ʿeśrîm wə-ḥāmēš šānâ hāyâ ḇəmolḵô
son.GEN twenty CONJ-five year COP.3MSG when.reign.INF.3MSG
He was 25 years old when he became king.

(34) 2 Kings 16:2
בֶּן־עֶשְׂרִים שָׁנָה אָחָז בְּמָלְכוֹ
ben ʿeśrîm šānâ ʾāḥāz ḇəmolḵô
son.GEN twenty year Ahaz when.reign.INF.3MSG
Ahaz (was) 20 years old when he became king.

In the corpus there are six examples of this expression with the overt copula and six examples of this expression with the verbless clause. These are listed below:

(35) Age expression–overt strategy

a. 2 Kings 8.17
בֶּן־שְׁלֹשִׁים וּשְׁתַּיִם שָׁנָה הָיָה בְּמָלְכוֹ
ben šəlošîm û-štayim šānâ hāyâ bəmolḵô
son.GEN thirty CONJ-two year COP.3MSG when.reign.INF.3MSG
He was 32 years old when he became king.

b. 2 Kings 14.2
בֶּן־עֶשְׂרִים וְחָמֵשׁ שָׁנָה הָיָה בְּמָלְכוֹ
ben ʿeśrîm wə-ḥāmēš šānâ hāyâ bəmolḵô
son.GEN twenty CONJ-five year COP.3MSG when.reign.INF.3MSG
He was 25 years old when he became king.

c. 2 Kings 15.2
בֶּן־שֵׁשׁ עֶשְׂרֵה שָׁנָה הָיָה בְּמָלְכוֹ
ben šēš wə-ʿeśrê šānâ hāyâ bəmolḵô
son.GEN six CONJ-five year COP.3MSG when.reign.INF.3MSG
He was 16 years old when he became king.

d. 2 Kings 15.33
בֶּן־עֶשְׂרִים וְחָמֵשׁ שָׁנָה הָיָה בְּמָלְכוֹ
ben ʿeśrîm wə-ḥāmēš šānâ hāyâ bəmolḵô
son.GEN twenty CONJ-five year COP.3MSG when.reign.INF.3MSG
He was 25 years old when he became king.

e. 2 Kings 18.2
בֶּן־עֶשְׂרִים וְחָמֵשׁ שָׁנָה הָיָה בְּמָלְכוֹ
ben ʿeśrîm wə-ḥāmēš šānâ hāyâ bəmolḵô
son.GEN twenty CONJ-five year COP.3MSG when.reign.INF.3MSG
He was 25 years old when he became king.

f. 2 Samuel 4.4
בֶּן־חָמֵשׁ שָׁנִים הָיָה בְּבֹא שְׁמֻעַת
ben ḥāmēš šānîm hāyâ bə-ḇō’ šəmuʿaṯ
son.GEN five years COP.3MSG when-come.INF report
He was 5 years old when the report came.

(36) Age expression–verbless strategy

a. 2 Samuel 5.4
בֶּן־שְׁלֹשִׁים שָׁנָה דָּוִד בְּמָלְכוֹ
ben šəlōšîm šānâ dāwiḏ bəmolḵô
son.GEN thirty year Ahaz when.reign.INF.3MSG
David (was) 30 years old when he became king.

b. 2 Kings 12.1
בֶּן־שֶׁבַע שָׁנִים יְהוֹאָשׁ בְּמָלְכוֹ
ben šeḇaʿ šānîm yəhôʾāš bəmolḵô
son.GEN seven years Jehoash when.reign.INF.3MSG
Jehoash (was) 7 years old when he became king.

c. 2 Kings 16.2
בֶּן־עֶשְׂרִים שָׁנָה אָחָז בְּמָלְכוֹ
ben ʿeśrîm šānâ ʾāḥāz bəmolḵô
son.GEN thirty year Ahaz when.reign.INF.3MSG
Ahaz (was) 20 years old when he became king.

d. 2 Kings 21.1
בֶּן־שְׁתֵּים עֶשְׂרֵה שָׁנָה מְנַשֶּׁה בְּמָלְכוֹ
ben štêm ʿeśrê šānâ mənaššeh ḇəmolḵô
son.GEN two ten year Manasseh when.reign.INF.3MSG
Manasseh (was) 12 years old when he became king.

e. 2 Kings 21.19
בֶּן־עֶשְׂרִים וּשְׁתַּיִם שָׁנָה אָמוֹן בְּמָלְכוֹ
ben ʿeśrîm û-štayim šānâ ʾāmôn bəmolḵô
son.GEN twenty CONJ-two year Amon when.reign.INF.3MSG
Amon (was) 22 years old when he became king.

f. 2 Kings 22.1
בֶּן־שְׁמֹנֶה שָׁנָה יֹאשִׁיָּהוּ בְּמָלְכוֹ
ben šəmōnē šānâ yōʾšîyāhû bəmolḵô
son.GEN seven year Josiah when.reign.INF.3MSG
Josiah (was) 8 years old when he became king.

The consistent difference between these two sets of examples is whether the participant is explicitly mentioned by name. In (35) the participant is referred to by the person inflection of the verb *hyh*. In (36) the participant is mentioned explicitly by name and an overt copula is not present. I will present a hypothesis in Chapter 4 for why the copula is present or not in these sentences.

One use of the verb *hyh* has a very different distribution than those reviewed above. This use shows up in context with directional PPs as in (37) and (38) or with the directive suffix *-h* in (39).

(37) 1 Samuel 15.10
וַיְהִי דְּבַר־יהוה אֶל־שְׁמוּאֵל
wayhî dəḇar yhwh ʾel šəmûʾēl
CONJ.COP.PRET.3MSG word.GEN YHWH to Samuel
The word of YHWH came to Samuel

(38) Numbers 24.2
וַתְּהִי עָלָיו רוּחַ אֱלֹהִים
wattəhî ʿālāyw rûaḥ ʾĕlōhîm
CONJ.COP.PRET.3FSG upon.3MSG spirit.GEN god
The Spirit of God came upon him.

(39) Joshua 16.8
וְהָיוּ תֹצְאֹתָיו הַיָּמָּה
wəhāyû ṯōṣʾōṯāyw hay-yāmmâh
CONJ.COP.WQTL.3MPL boundaries.3MSG ART-sea.DIR
Its boundaries went to the sea.

Existential sentences in CH usually require the presence of an overt copula. Though a much more thorough treatment of existentials will be provided in Chapter 6, I list a few examples here. Existentials use the verb *hyh* as listed here or the existential particles *yēš* and *ʾên*.

(40) Judges 17.1
וַיְהִי־אִישׁ מֵהַר־אֶפְרָיִם וּשְׁמוֹ מִיכָיְהוּ
wayhî ʾîš mē-har ʾepārayim û- šəmô
CONJ.COP.PRET.3MSG man from-hill.GEN Ephraim CONJ-name.3MSG
mîḵāyəhû
Micah
There was a man from the hill country of Ephraim and his name was Micah.

(41) Exodus 19.16
וַיְהִי קֹלֹת וּבְרָקִים וְעָנָן כָּבֵד עַל־הָהָר
wayhî qōlōṯ û-ḇərāqîm wə-ʿānān kāḇēḏ ʿal
CONJ.COP.PRET.3MSG thunders CONJ-lightnings CONJ-cloud heavy on
hā-hār
ART-mountain
There was thunder and lightning and a heavy cloud on the mountain.

The existential construction can be negated by the negator *lōʾ*.

(42) Genesis 9.11
וְלֹא־יִהְיֶה עוֹד מַבּוּל לְשַׁחֵת הָאָרֶץ
wə-lōʾ yihyeh ʿôḏ mabbûl lə-šaḥēṯ hā-ʾāreṣ
CONJ-NEG COP.IPFV.3MS still flood to-destroy.INF ART-earth
There will never again be a flood that destroys the earth.

Examples like (43) and (44) have been called "one-place existentials" in cross-linguistic research because they convey the idea "exist" or "occur," and do not specify a location (Gast and Haas 2011: 146).

(43) Isaiah 66.2
וְאֶת־כָּל־אֵלֶּה יָדִי עָשָׂתָה וַיִּהְיוּ כָל־אֵלֶּה נְאֻם־יהוה
wə-ʾeṯ kol ʾēllê yāḏî ʿāśāṯâ wayyihyû ḵol ʾēllê
CONJ-OBJ all these hand.1SG made.PFV.3FSG CONJ.COP.PRET.3MPL all these
nəʾum yhwh
word.GEN YHWH
"All these my hand has made and all these came to be" oracle of YHWH.

(44) Genesis 1.3
וַיֹּאמֶר אֱלֹהִים יְהִי אוֹר
wayyōʾmer ʾĕlōhîm yəhî ʾôr
CONJ.say.PRET.3MSG God COP.JUSS.3MSG light
And God said, "Let there be light."

One additional construction which utilizes *hyh* is the predicative possessive construction. Predicative possessives in CH combine *hyh* with a prepositional phrase to indicate possession. Predicative possession in CH will be analyzed in Chapter 6.

(45) 2 Samuel 9.9
כֹּל אֲשֶׁר הָיָה לְשָׁאוּל וּלְכָל־בֵּיתּוֹ נָתַתִּי לְבֶן־אֲדֹנֶיךָ
kōl ʾăšer hāyâ lə-šāʾûl û-lə-ḵol bêṯô nāṯattî
all that COP.PFV.3MSG to-Saul CONJ-to-all house.3MSG give.PFV.1SG
lə-ḇen ʾăḏōnêḵā
to-son.GEN master.2MSG
All that Saul and his household had, I have given to the son of your master.

(46) 1 Chronicles 2.26
וַתְּהִי אִשָּׁה אַחֶרֶת לִירַחְמְאֵל
wattəhî ʾiššâ ʾaḥereṯ l-îraḥməʾēl
CONJ.COP.PRET.3FSG wife another to-Jerahmeel
Jerahmeel had another wife

One more context where *hyh* is used frequently has been called a discourse marker in many previous studies of CH. These constructions are characterized by the verb *hyh* in clause-initial position which is isolated from the main predication of the sentence. These constructions will be labeled differently in Chapter 5 after providing a description of their syntax and semantics.

(47) Genesis 4.14
וְהָיָה כָל־מֹצְאִי יַהַרְגֵנִי
wəhāyâ ḵol mōṣʾî yaharḡēnî
CONJ.COP.WQTL.3MSG all find.PTCP.MSG.1SG slay.IPFV.3MSG.1SG
It will happen, all who find me will slay me!

(48) Genesis 39.7
וַיְהִי אַחַר הַדְּבָרִים הָאֵלֶּה וַתִּשָּׂא אֵשֶׁת־אֲדֹנָיו אֶת־עֵינֶיהָ אֶל־יוֹסֵף
wayhî ʾaḥar had-dəḇārîm hā-ʾēllê wattiśśāʾ
CONJ.COP.PRET.3MS after ART-things ART-these CONJ.lifted.PRET.3FSG
ʾēšeṯ ʾăḏōnâyw ʾeṯ ʿênêhā ʾel yôsēp̄
wife.GEN master.3MSG OBJ eyes.3FSG to Joseph
It happened, after these things, the wife of his master lifted her eyes to Joseph.

(49) Exodus 1.21
וַיְהִי כִּי־יָרְאוּ הַמְיַלְּדֹת אֶת־הָאֱלֹהִים וַיַּעַשׂ לָהֶם בָּתִּים
wayhî kî yārʾû ha-myallədōṯ ʾeṯ hā-ʾĕlōhîm
CONJ.COP.PRET.3MSG because fear.PFV.3PL ART-midwives OBJ ART-god
wayyaʿaś lāhem bātîm
CONJ.do.PRET.3MSG to.3MPL houses
It happened because the midwives feared God, he gave them families.

The examples listed above reflect the wide array of meanings associated with the verb *hyh*. The best way to demonstrate how this verb is incorporated into CH syntax and semantics is to demonstrate its function in each phase of syntactic derivation, including the semantics of the constructions in which it occurs. This will be taken up in Chapter 4.

3.3 PRON

The final construction I will analyze in this section is the construction which includes a pronoun within a verbless clause, presumably for purposes of predication (similar to Modern Hebrew, Arabic, and Polish). This clause has been referred to as a tripartite nominal clause in CH research. The pronoun has been referred to as PRON. This construction has received extensive treatment in the research of CH as well as similar constructions in other languages. The identifying feature of this construction is a pronoun which serves neither as the subject nor the predicate as in (50).

(50) 2 Samuel 7.28
וְעַתָּה אֲדֹנָי יהוה אַתָּה־הוּא הָאֱלֹהִים
wə-ʿattâ ʾăḏōnāy yhwh ʾattâ hûʾ hā-ʾĕlōhîm
CONJ -now lord.1SG YHWH 2MSG 3MSG ART-god
And now my Lord, YHWH, you (are) God.

This construction has received extensive treatment from hebraists for more than a century from philological and comparative Semitic approaches, functional-typological approaches, and (far more infrequently) generative-syntactic approaches. Among hebraists two major camps have emerged. One camp considers the pronominal element (PRON) a copula (Gesenius 1853; Joüon 1947; Khan 2005; Kummerow 2013; Holmstedt & Jones 2014) while the other concludes that it is not a copula (Gesenius 1910; Joüon & Muraoka 2005; Zewi, 1994, 1996a, 1996b, 1999a, 1999b, 2013; Woodard 2009; Andersen 1970; Muraoka 1985, 1999, 2006) Most of those who argue that PRON is not a copula view it as a resumptive element in a left-dislocation construction. Recently, Holmstedt and Jones (2014) and Kummerow (2013) have advocated a perspective which accommodates both the copular and resumptive analysis by demonstrating from typology and grammaticalization paths as well as related Semitic languages that the resumptive pronoun in the LD construction has been reanalyzed as a copula. Katz (1996: 85–102) was the first to apply this grammaticalization perspective to Classical Hebrew in her typological observation about the cyclic nature of grammaticalization in these types of constructions. For a detailed review of the debate among hebraists, see Kummerow (2013: Chapter 3) or Holmstedt & Jones (2014).

In broader linguistic circles, there are similar camps. Some have advocated the reanalysis view similar to Holmstedt & Jones (2014) and Kummerow (2013) (Edwards 2006 for Arabic; Adger & Ramchand 2003 for Scottish Gaelic; Katz 1996 for ten languages). Others have labeled them real copulas (Greenberg 2002 for Modern Hebrew, Eid 1983 for Arabic, Citko 2008 for Polish). There is also a tradition which has attributed the existence of PRON to various syntactic and semantic feature requirements (Doron 1983; Rapoport 1987; Rothstein 1995, 2001 for Modern Hebrew, Naudé 1990, 1994, 1999 for CH, 1994 for Aramaic, 2001, 2002a, 2002b for Qumran Hebrew, Benmamoun 2008 for Arabic, Wondem 2014 for Amharic and Geʿez).

A lot of discussion about the function of PRON in CH has been produced from multiple frameworks, but unfortunately many of these studies have not started from a clearly articulated position on what a copula is and what constitutes predication. Just as others have done for these constructions in other languages (Naudé for Qumran Hebrew and Aramaic, Benmamoun for Arabic, Doron, Rapoport, and Rothstein for Modern Hebrew, Citko 2008 for Polish), a thorough syntactic analysis of PRON in CH is necessary. Such an analysis will be provided in Chapter 4 after I have articulated the syntactic and semantic variation in CH copular sentences.

CH manifests a complex copula system which conveys many different meanings in many different contexts. These data, combined with the fact that the verbless clause can be used as an additional strategy for encoding copular predication, present us with a challenge. What explanation could account for all these variances?

One solution could ascribe the different meanings to different verbs in the Lexicon. This approach is especially common in research on copular verbs cross-linguistically. This approach claims that the two Spanish copulas *ser* and *estar*, which account for the stage-level/individual level distinction, are empirical evidence for multiple copulas in the Lexicon. Another solution could ascribe the different meanings to certain functional heads which need a verb to license them. In the following chapter, I will demonstrate what accounts for the syntactic and semantic variation introduced in this chapter.

CHAPTER 4

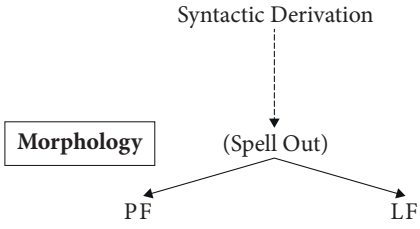
A theory of syntactic and semantic variation in copular sentences with insights from the system of Classical Hebrew

As I demonstrated in Chapter 2, there is no shortage of approaches to understanding the syntax and semantics of copular sentences. However we decide to model it our framework must allow for highly suppletive paradigms, null variants, interactions with TAM, and a way of representing the multiple semantic relationships between subject and complement. The framework of Distributed Morphology (DM) has demonstrated its effectiveness at providing tools which handle these complex issues, especially as more data are added from very diverse languages. In Section 4.1, I will introduce DM and its assumptions about the architecture of grammar and syntax. In Section 4.2, I will explain how copular sentences are built and manipulated in the thematic domain, inflectional domain, and left-periphery. Using data from CH, I will provide an explanation for the syntactic variability of copular sentences. In Section 4.3, I will introduce the semantics of copular sentences and provide an explanation for why the semantic interpretation of the pieces of copular sentences in CH vary. Based on this analysis I will also continue the discussion about PRON.

4.1 An introduction to Distributed Morphology and its relevance to copular constructions

As I already mentioned, the theoretical approach I am taking to copular and existential sentences is rooted in the assumptions of Distributed Morphology. The grammar in this system is modeled with the well-known inverted Y diagram displayed in (1).

(1) The Grammar

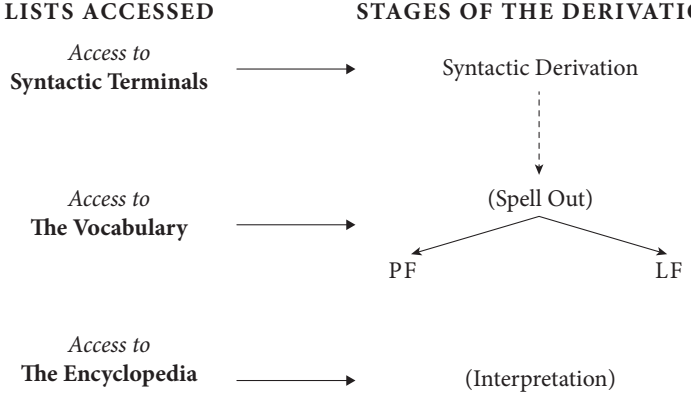


In the assumptions of DM there is no Lexicon which contains words which are introduced into the computational system with innate features (such as θ-roles). Rather, there is a single generative engine which is responsible for both word and sentence formation. Though there is not a single Lexicon which explains the source of materials manipulated by the computational system, DM has three lists which are accessed at different stages of derivation.

(2) a. Syntactic Terminals: The list containing the Roots and the Abstract Morphemes.
b. The Vocabulary: The list of Vocabulary Items. These are instructions for how to pronounce terminal nodes in context.
c. Encyclopedia: The list of semantic information which gives instructions for interpreting terminal nodes in context (idioms like *kick the bucket*).

These lists are accessed at distinct stages in the derivation, as modeled in (3).

(3)



(Embick 2015: 25)

The syntax, then, only manipulates abstract syntactic terminals which exist as bundles of formal features. These bundles include both roots and abstract morphemes. Roots were introduced in Chapter 2 in the discussion of lexical categories. Abstract morphemes are bundles of features which exist in a Universal Inventory of

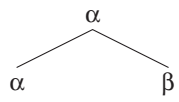
Features (UIF) which includes features such as [1st person], [+past], [female], etc. Critically, these terminals are not associated with any morpho-phonological content at this stage of derivation. Only after Spell-Out is there a mapping of phonological content (Vocabulary Items) to the bundles of features. This is known as the principle of Late Insertion (Halle and Marantz 1993). This principle of Late Insertion has also been applied to the semantic component (LF) (Marantz 2013b; Borer 2013; Kastner 2016; Wood 2015; Myler 2016, 2018). Marantz (2013b) suggests that just as Vocabulary Insertion in PF is sensitive to context, leading to things like allomorphy, there may also be a contextually sensitive process on the LF side. There may be contextual "allosemy" parallel to contextual allomorphy. He says, "The semantic interface, like the phonological interface, does allow for contextual allosemy, within the same spell-out domain as for contextual allomorphy and governed by the same locality conditions" (Marantz 2013b: 97).

One distinguishing feature of DM is that information relevant to the architecture of grammar is "distributed" across multiple stages of the derivation. After the operations are finished in the syntactic component and undergo spell-out, there is a separate module called the *morphological structure* which takes place before Vocabulary Insertion in PF (represented in (1) above). Processes such as linearization, impoverishment, lowering, morphological metathesis, and doubling take place in this "post-syntax" stage of the derivation prior to Vocabulary Insertion. With the exception of Impoverishment, Fusion, and Vocabulary Insertion, I will not discuss any post-syntactic operations or provide any more details about whether or when these operations are necessary. Further discussion of the types of post-syntactic operations can be found in Embick & Noyer (2007), Arregi & Nevins (2012), and Embick (2015). It is important at this stage to briefly describe how I understand each component in the model given in (1) and then narrow in on the underlying syntax and semantics of copular constructions before moving to Classical Hebrew specifically.

4.2 Syntax

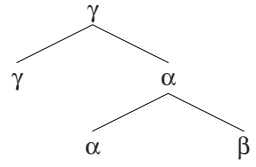
Following the research in Minimalism (Chomsky 1995, 2000, 2001), there are two basic syntactic operations that affect the structure of clauses before spell-out: MERGE and AGREE (also known as INTERNAL MERGE). MERGE happens when two objects α and β are joined and one object "projects" and forms a new object α{α,β} which is often represented with a tree structure as in (4).

(4)



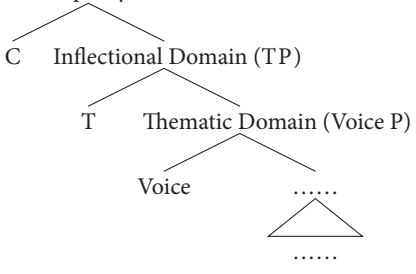
The object which projects is known as a *head*. There are both lexical heads (N, V, Adj etc.) and functional heads (C, T, Voice, *v*, Pred, etc.) which will receive more description below. Other objects can enter the derivation and MERGE with the complex structure (4) as in (5).

(5)



In the derivation, there are at least three domains. The lower domain is called the Thematic domain which represents argument structure; the middle domain is called the Inflectional domain and is typically associated with tense, aspect, mood, and negation; the highest domain is called the Left-Periphery which is associated (at least) with clause-typing and information structure. The three domains are represented in (6).

(6) Left Periphery (CP)



The syntactic operations are active in each of these domains. Each of these domains is treated as a *phase* which completes its syntactic operations and is sent to Spell-Out (Chomsky 2001).

Agreement is a relation between an interpretable feature which is on one terminal node and an uninterpretable feature on another. This operation is stated in (7).

(7) *Agree*

α can agree with β iff:

a. α carries at least one unvalued and uninterpretable feature and β carries a matching interpretable and valued feature.

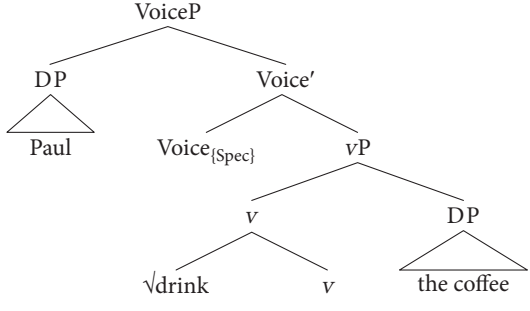
b. α c-commands β.

c. β is the closest goal to α.
d. β bears an unvalued uninterpretable feature of its own.

The c-commanding element is called the Probe which searches for a Goal to satisfy the Agree relation and value its unvalued features. There has been continuing debate about the c-commanding relationships between Probe and Goal and the direction of Agreement (Zeijlstra 2012; Preminger 2013; Bjorkman & Zeijlstra 2014; Preminger & Polinksy 2015). This discussion is not relevant for the present study.

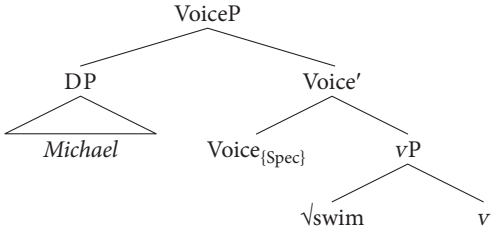
Pertaining to the structure of the thematic domain, I agree with Kratzer (1996) and believe the highest head in the thematic domain is Voice. The function of Voice is to introduce an external argument indicated by its specifier requirement {Spec} and to influence the voice of the construction. Below Voice there is little-*v*. Little-*v* on the syntactic side, categorizes an uncategorized root (Halle & Marantz 1993; Marantz 1997, 2013a). On the semantic side, it introduces eventualities such as *state* and *activity*. In the syntax a root merges with *v* as an adjunct which provides it with its category and makes it visible to the semantic component following the Categorizing Assumption introduced in Chapter 2. Example (8) is a typical transitive sentence (excluding the inflectional domain for now).

(8) Paul drank the coffee



Since this book is concerned with copular sentences, the structure of intransitive sentences is more relevant than that of transitive sentences. Intransitive sentences are traditionally divided into two categories: unaccusative and unergative. Unergative sentences have a single argument which is typically the agent. The underlying structure of the unergative is represented in (9).

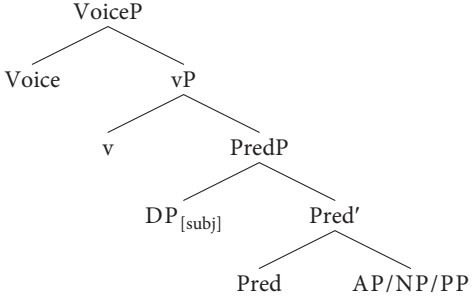
(9) *Michael swam*



Unaccusatives come in several forms but are traditionally identified by their lack of an external argument.

Copular constructions, which are a type of intransitive sentence, may pattern off either the unergative or unaccusative structures depending on the clause-type and language (see Cinque 1990 & Harves 2002 for discussion). The discussion about the position and interpretation of the subject of copular sentences is important for our purposes. In this study I assume that the subject DP is inserted in the specifier of Pred and subsequently moves to the specifier of Voice. For CH copular sentences, then, the thematic domain is minimally structured as in (10):

(10) Thematic Domain for CH Copular Sentences



The next area for investigation is the Inflectional Domain of copular sentences. As a means of developing the argument, it is important to discuss the simplest case first, the verbless clause, and then move on to a discussion of the role of the copula in CH.

In Chapter 2, I described two views on the underlying structure of verbless clauses. In addition to the debate about small versus full clauses, one other debated subject concerns whether or not there is a null copula underlying verbless clauses. Some have argued that a null copula exists in Arabic (Bakir 1979; Fehri 1993). Fehri argues that there is a null copula in Arabic but a rule exists which states "Spell out the copula as *kwn* when Mood, Aspect, and/or Tenses are specified, otherwise spell it out as zero" (Fehri 1993: 156). However, as Benmamoun points

out, when a copula is present the predicate is assigned accusative case; when it is null, the predicate has nominative case. The V assigns accusative case to the predicate, so if V exists (even in null form), the nominative case of verbless predicates is problematic (Benmamoun 2008: 112–113; also Al-Horais 2006). González-Rivera also provides the criticism that in most languages verbless clauses are only used in the present tense. He says,

> If we assume the null copula analysis, we will be forced to assume the presence of a copula in the present tense that becomes deleted in the course of the syntactic derivation. In other words, a deletion rule must be assumed, one that deletes the copula only in the present tense. (González-Rivera 2010: 120)

No such rule follows from any property of the present tense, however.

For Arabic, Benmamoun argues that if there was a null copular verb, then when there is sentential negation, the same ordering options should be available in both verbless and overtly copular sentences. The same test can be applied to CH. Examples (11) and (12) demonstrate the typical order in verbless clauses after the negative particle *lō'*: Predicate-Subject (P-S).

(11) 1 Samuel 15.29
כִּי לֹא אָדָם הוּא לְהִנָּחֵם
kî lō' 'āḏām hû' ləhinnāḥēm
for NEG man 3MSG to.regret.INF
For he (is) not a man, that he should regret.

(12) 2 Kings 19.18
כִּי לֹא אֱלֹהִים הֵמָּה
kî lō' 'ĕlōhîm hēmmâ
for NEG gods 3MPL
For they (were) not gods

Example (13) demonstrates the typical Subject-Predicate (S-P) order after the *lō'*+copula construction:

(13) Numbers 14.43
וְלֹא־יִהְיֶה יהוה עִמָּכֶם
wə- lō' yihyeh yhwh 'immāḵem
CONJ-NEG COP.IPFV.3MSG YHWH with.2MPL
YHWH will not be with you

Verbless clauses also commonly allow S-P order after the negative marker *lō'* when there is a clause-initial interrogative marker *hă*, as in (14).

(14) Genesis 37.13[1]
הֲלֹוא אַחֶיךָ רֹעִים
hă-lô' *'aḥêḵā* *rō'îm*
INTER-NEG brothers.2MSG shepherd.PTCP.PL
Are not your brothers shepherding?

Other examples which demonstrate S-P order after the negative marker are given in (15)–(17).

(15) Job 33.9[2]
וְלֹא עָוֹן לִי
wə-lō' *'āwôn* *lî*
CONJ-NEG iniquity to.1SG
I have no iniquity

(16) 1 Kings 22.17[3]
לֹא־אֲדֹנִים לָאֵלֶּה
lō' *'ăḏōnîm* *lā -'ēlleh*
NEG masters to - these
These have no master

(17) 2 Kings 6.19[4]
וַיֹּאמֶר אֲלֵהֶם אֱלִישָׁע לֹא זֶה הַדֶּרֶךְ וְלֹא זֹה הָעִיר
way -yō'mer *'ălēhem* *'ĕlîšā'* *lō'* *zeh* *had-dereḵ* *wə-lō'* *zō*
CONJ-say.PRET.3MSG to.3MPL Elisha NEG this ART-way CONJ-NEG this
hā-'îr
ART-city
Elisha said to them, "This is not the way and this is not the city."

This negation test demonstrates that verbless clauses in CH are different from Arabic. Since I am following a Late Insertion model of spell-out, these data do not demonstrate either that there is or is not a null copula. All this means is that there is no Vocabulary item which corresponds to the bundle of features on the terminal

1. Other examples include Judg. 9.38, 15.2; 1 Sam. 1.8, 17.8, 20.37, 21.12, 23.19, 26.1, 29.3, 29.5; 1 Kings 11.41, 14.29, 15.7, 15.23, 15.31, 16.5, 16.14, 16.20, 16.27, 22.39, 22.46; 2 Kings 1.18, 6.32, 8.23, 10.23, 12.20, 13.8, 13.12, 14.15, 14.18, 14.28, 15.6, 15.21, 15.36, 16.19, 20.20, 21.7, 21.25, 23.28, 24.5; Jer. 23.29; Mic. 3.11; Hab. 1.12; Zech 3.2; Job 7.1, 22.5, 22.12, 31.3; Esth. 10.2; 1Chr. 21.3, 22.18; 2 Chr. 9.29, 12.15, 25.26, 32.11.

2. Other similar examples include Jer. 2.19, 10.14, 51.17; Ezek. 7.11; Am. 5.20; Job 33.9; Num. 23.23; Job 16.7; 1 Chr. 12.17, 28.10.

3. Other similar examples include 2 Sam. 20.1; Job 18.17, 18.19; Ps. 22.2; Mal. 2.10; 2 Chr. 18.16

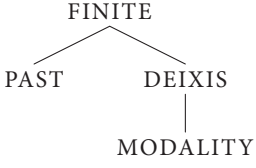
4. See also Mic. 2.10.

node *v*. CH verbless clauses should be considered full clauses which license all their syntactic features, but do so without an overt verb. Now I will discuss the role of *hyh* in CH copular sentences.

In the overview of previous treatments of these sentences in Chapters 2 and 3, I mentioned that the prevailing view is that *hyh* is used to license TAM features. The work of Baker (2003), Benmamoun (2008), and Cowper (2010) which I reviewed in Chapter 3 has already explained some of the approaches to how exactly a copula licenses TAM features. In this section I will introduce the work of Bjorkman (2011) as well as Nevins & Parrott (2010) and elaborate on how *hyh* licenses features in CH.

First, it is important to note the work by Cowper and DeCaen (2017) who have listed the conditions for Vocubulary Insertion of the CH copula. In an excurses on *hyh*, Cowper and DeCaen use the same assumptions from DM as those used in this book; namely, that vocabulary items which spell out the features on terminal heads may be underspecified. The features which they highlight have the dependency relations in (18).

(18)



(Cowper & DeCaen 2017: 7)

To quote their own explanation:

> FINITE has purely syntactic content, licensing structural nominative case and agreement. DEIXIS anchors the clause to the deictic centre of the utterance (usually utterance time). MODALITY operates on DEIXIS, and encodes necessity or possibility (*must, shall, will/would, can/could, may/might*). PAST signals back shifting or temporal precedence relative to the deictic centre; in the absence of this feature, the interpretation is NONPAST. (Cowper & DeCaen 2017: 7)

The vocabulary items of *hyh* are inserted as listed in (19) according to the paradigm in (20), which is adapted from DeCaen (1999: 124).

(19) *hāyâ* ↔ PAST
yihyeh ↔ MODALITY
yəhî ↔ DEIXIS

(20) Paradigm of auxiliary *hyh*

[PAST]	[MODALITY]	[DEIXIS]		
			ø	*is*
	+	+	*yihyeh*	*will be*
		+	*yéhî/yəhî*	*be*
+			*hāyâ*	*was*
+	+	+		*would be*
+		+		*were.*

(Cowper & DeCaen 2017: 8)

As I will demonstrate in this section, past and future temporal reference in CH can be accomplished with a verbless clause. There are also additional functional heads which are specified for inflectional features which lead to the overt insertion of *hyh*. The argument in this chapter, then, will provide a more comprehensive analysis of Vocabulary Insertion of *hyh* than that of Cowper and DeCaen.

In her research on auxiliaries, Bjorkman demonstrates that auxiliaries occur as a repair to structures in which inflection is not realizable on the main verb (Bjorkman 2011: 33).[5] Though most of her work explains how auxiliaries are inserted in verbal sentences, her approach is useful for explaining the distribution of *hyh* in certain contexts. Auxiliaries function as a "last resort" strategy to realize features which need a host to be specified. The BE-verb in many languages is selected as an auxiliary because of its semantic vacuity–it is inserted into the derivation wherever a functional head needs licensing. According to Bjorkman, functional heads such as Voice, Asp, and Mod also permit auxiliaries in order to value stranded inflectional features (Bjorkman 2011: 37ff). She distinguishes her work from that of Cowper (2010) by stating that auxiliary BE occurs for purely *morphological* reasons and not as a response to a *syntactic* requirement. Cowper proposes that the copula occurs to satisfy categorical selection (c-selection) requirements of certain functional heads which was reviewed in Chapter 2. This c-selection requirement exists in cases where the main verb has already satisfied the requirements of another head and thus needs an auxiliary to satisfy the stranded feature through BE-support as well as in those sentences which lack a verb, giving rise to the copular BE.

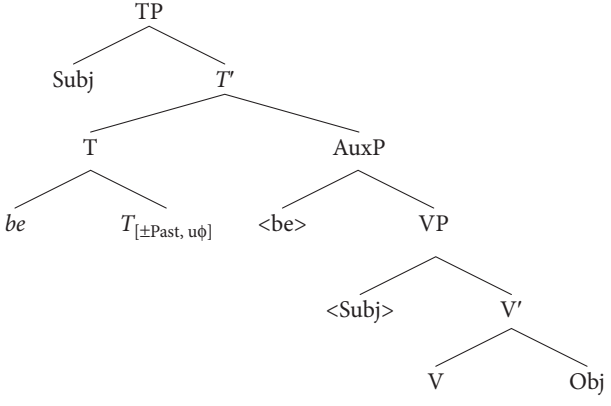
The morphological approach of Bjorkman is consistent with the approach taken in this volume. The syntax contains bundles of features which receive their pronunciation at spell-out in PF. An overt copula with its inflectional information, then, is just an auxiliary which realizes the features which would be stranded

5. Special thanks to Neil Myler for directing me to Bjorkman's research.

without it. For verbless clauses in Arabic, Bjorkman states simply that there are no stranded inflectional features in the present tense, though in the past the copula is necessary to value a stranded inflectional feature on Tense (Bjorkman 2011: 64 n. 35). I will follow Bjorkman in stating that the copula exists for morphological reasons and not as a response to a syntactic requirement.

Several important works which operate from a Late Insertion assumption have assumed that the copula merges lower in *v* or V before raising to the inflectional domain. Adger and Smith (2005) who claim to follow a "standard view" of the syntax of finite *be* in English (after Pollock 1989), assume that auxiliary *be* originates in some auxiliary position above the VP (called Aux) while copular *be* originates inside the VP. T bears unvalued features for number and person which are checked and valued by the subject. Example (21) gives the syntax of auxiliary *be* according to Adger and Smith. Head movement in the syntax raises *be* to adjoin with T, leaving a trace in AuxP (for expositional reasons),

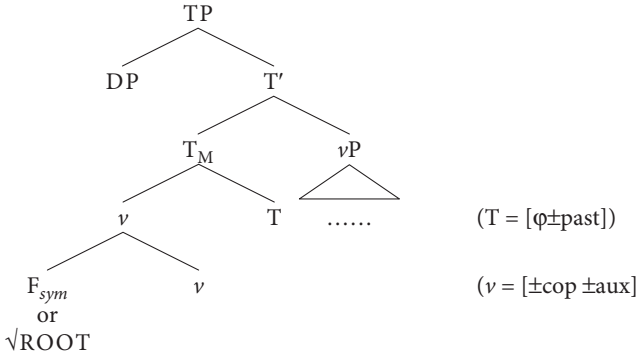
(21)



(adapted from Adger & Smith 2005)

Nevins and Parrott (2010) adopt this structure and explain that the Vocabulary Item for the past tense copula is a single exponent which includes both *be* and $T_{[\pm Past, \Phi]}$. The morphological operation Fusion combines these two terminal nodes into one and then the copula is inserted (Nevins & Parrott 2010: 1141). Merchant (2015: 297–298) adopts a similar structure in his discussion. Nevins and Parrot explain further that verbal auxiliaries (including copular *be*) consist of a category *v* adjoined either to a root (as in modals like *should*) or to a certain bundle of features they label F_{sym} which determine each auxiliary's semantics, argument structure, and complement selection. The little-*v* has two features: [±Copula, ±Auxiliary]. This is reflected in (22).

(22)



(Nevins & Parrott 2010: 17)

They state that the feature [+Copula} always entails [+Auxiliary} because no verbal element can be a copula but not an auxiliary. Fusion applies to F_{sym}/√ROOT and *v*. Through lowering (Embick & Noyer 2001), main verbs which have $v_{[\text{-COP,-AUX}]}$ feature values are adjoined with $T_{[\pm\text{Past, }\varphi]}$, allowing the insertion of the specific Vocabulary Item at the terminal T, (e.g., exponent *-d* for +past). The verbal auxiliaries, which have suppletive Vocabulary Items, are inserted after the fusion of $v_{[\pm\text{COP, }\pm\text{AUX}]}$ and $T_{[\pm\text{Past, }\varphi]}$. The feature bundles of the various auxiliaries are reproduced in (23)

(23) BE (auxiliary or copula) = $[_M$ φ ±past +copula +aux $F_{sym\text{-BE}}]$
HAVE (auxiliary) = $[_M$ φ ±past -copula +aux $F_{sym\text{-HAVE}}]$
DO (light verb) = $[_M$ φ ±past -copula -aux $F_{sym\text{-DO}}]$
DO (*do* support for $T_{[\pm\text{Past}]}$) = $[_M$ φ ±past -copula -aux]

(Nevins and Parrott 2010: 17)

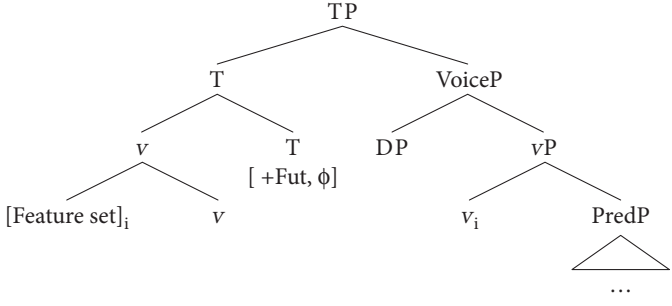
This analysis is helpful for explaining the auxiliary function of *hyh* as in (24), which is rare but possible in CH.

(24) 2 Kings 6.8
וּמֶלֶךְ אֲרָם הָיָה נִלְחָם בְּיִשְׂרָאֵל וַיִּוָּעַץ אֶל־עֲבָדָיו
û-meleḵ ʾărām hāyâ nilḥām bə-yiśrāʾēl
CONJ-king.GEN aram COP.PFV.3MSG make.war.PTCP in-Israel
way-yiwwāʿaṣ ʾel ʿăḇāḏāyw
CONJ-take.council.PRET.3MSG to servants.3MSG
The king of Aram had been warring against Israel and he took council with his servants.

Nevins and Parrott demonstrate how auxiliaries and copulas should be treated as part of the same phenomena. This has already been anticipated by Hengeveld (1992) and Bjorkman (2011). This approach presents a compelling account for

how CH copulas follow verbal derivational morphology, but do not include a meaningful root like other verbs. For the CH copula, then, I adopt the approach of Nevins and Parrott with respect to the fusion of terminals which result in one morphological exponent. I depart from their analysis, however, which postulates a unique AUX or BE head in the syntax. I also depart from Adger and Smith who assume the copula begins inside the VP. The little-*v* head, which bears the responsibility of introducing different types of eventualities, depends on the Pred head in its complement for determination of what feature set is (or is not) merged in the inflectional domain. The *v*P contains a feature set which is moved in narrow syntax and adjoined to a categorizer *v*. In the case of a CH copular sentence with future temporal reference, the syntax will look like (25) before the morphological component and Vocabulary Insertion. Through syntactic head movement, the feature set in *v* moves to T, is adjoined to a categorizer *v*, undergoes Fusion with T resulting in a single exponent at Vocabulary Insertion.

(25)



Example (26) and the Vocabulary Items inserted at PF are represented in (27).[6]

(26) Genesis 4.14

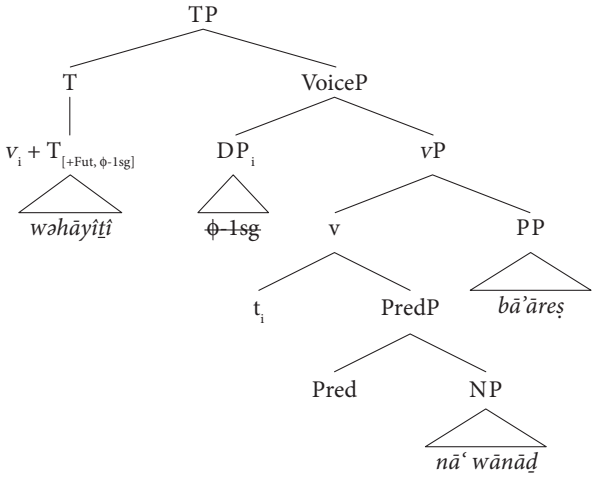
וְהָיִיתִי נָע וָנָד בָּאָרֶץ

wəhāyîṯî	*nāʿ*	*wā-nāḏ*	*bā-ʾāreṣ*
CONJ.COP.WQTL.1SG	stranger.PTCP	CONJ-foreigner.PTCP	in.ART-land

But I will be a stranger and a foreigner in the land.

6. The discussion of the role of the conjunction wə in this derivation goes beyond the scope of this volume and will not be discussed further.

(27)



The strikethrough of the subject in the specifier of VoiceP is a reflection of the agreement relation between the unvalued φ-features on T and the valued features on the subject DP.[7]

What is more difficult to explain, however, are the examples which are in the suffixed (perfective) or preterite conjugations with clear past temporal reference. If there are no specified inflectional features for past tense in CH copular sentences, why are there many examples of this verb in past tense contexts? The answer is found in the specified features on other functional heads.

There are inflectional features specified on the functional aspect head (Asp) which can account for the overt manifestation of *hyh* in many contexts.[8] One test which would confirm the hypothesis that *hyh* in past referring contexts exists to value aspectual features rather than tense is to see if there are any forms of the verb in past referring contexts which are unambiguously licensing aspect instead of tense. Such examples exist, as examples (28) and (29) demonstrate.

7. Benmamoun (2000, 2008) and Fakih (2016) have developed a theory that the prefix and suffix inflections in Semitic languages such as Arabic and Hebrew are due to historic pronouns which developed into clitics over time. In this example, the theory would hypothesise that the 1st singular pronoun *ʾănī* remains below the moved verb and cliticises on the verb *hyh*. The Fusion analysis presented here is a DM-internal way of describing the same phenomenon.

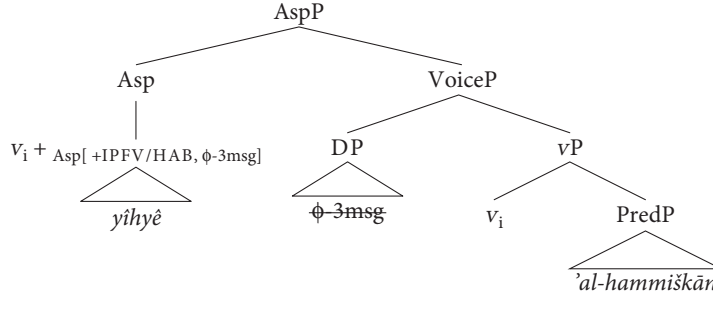
8. This use of *hyh*, though from a different theoretical framework, has previously been suggested in the work of Zevit (1998: 15) and Osborne (2012).

(28) Exodus 40.38
כִּי עֲנַן יְהוָה עַל־הַמִּשְׁכָּן יוֹמָם וְאֵשׁ תִּהְיֶה לַיְלָה בּוֹ
kî ʿănan yhwh ʿal ham- miškān yômām wə-ʾēš tihyê laylâ bô
for cloud.GEN YHWH over ART-tabernacle day CONJ-fire COP.IPFV.3FSG night in.3MSG
For the cloud of YHWH was over the tabernacle by day and fire would be in it by night.

(29) Numbers 9.15
וּבָעֶרֶב יִהְיֶה עַל־הַמִּשְׁכָּן כְּמַרְאֵה־אֵשׁ עַד־בֹּקֶר
û-bāʿereb yîhyê ʿal ham-miškān
CONJ-in.ART.morning COP.IPFV.3MSG over ART-tabernacle
kə-marʾê ʾēš ʿaḏ- bōqer
like-appearance.GEN fire until- morning
In the evening, it would be over the tabernacle like the appearance of fire until morning.

In these examples, the prefixed form of *hyh* is used in contexts with past temporal reference. This is contrary to the expected suffixed conjugation. There is, however, an habitual imperfective aspectual nuance in these examples. These examples demonstrate that it is not tense which motivates the presence of *hyh* in past tense contexts, but aspect. The core predication in (29) is represented in (30).[9]

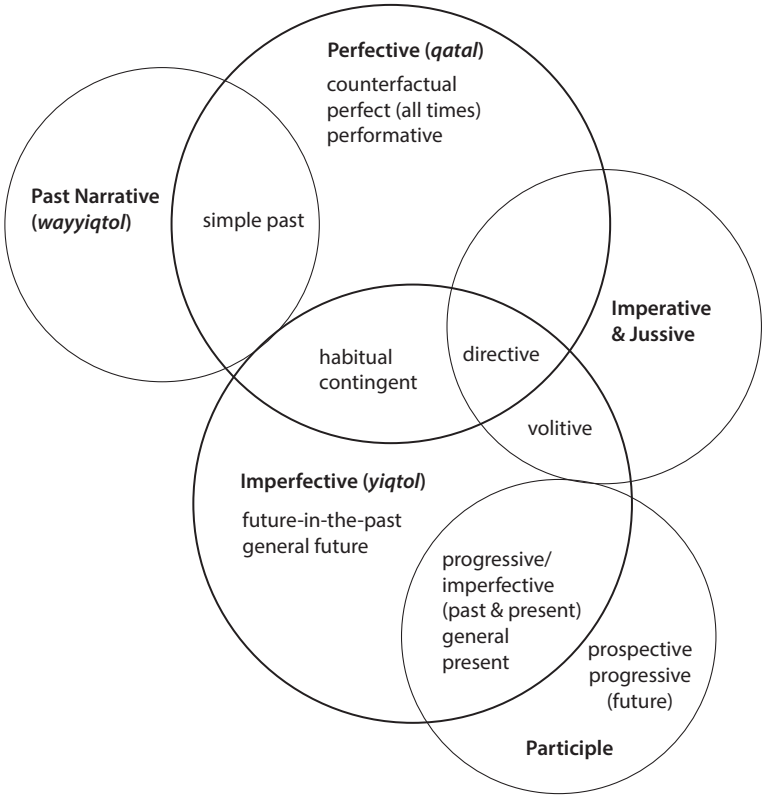
(30)



Cook (2012) notes that the TAM system in CH "competes" for limited inflectional possibilities. The prefixed conjugation is used in these examples to spell-out the imperfective aspect. Cook represents the competition between inflectional forms with the diagram in (31).

9. Since we have not yet analyzed the CH left-periphery, the topical frame is not represented in the following phrase structure. Also for the sake of expositional simplicity, the other adjuncts are left off the tree.

(31)



(Cook 2012: 270)

This is consistent with the Late Insertion hypothesis of DM in which the syntactic features of a terminal node are scanned in PF and then the Vocabulary Item which best fits the features of that node is selected. Though the prefix and *wəqatal* forms of *hyh* are often used for future tense, they are also best suited for the (more limited) contexts where an imperfective/habitual feature is specified in the syntax.

A construction which uses both suffixed and preterite morphology seems to be doing so to license a perfect Tense/Aspect. The examples in (32) and (33) demonstrate the present perfect construction which is confirmed by the temporal deictics.

(32) Genesis 46.34

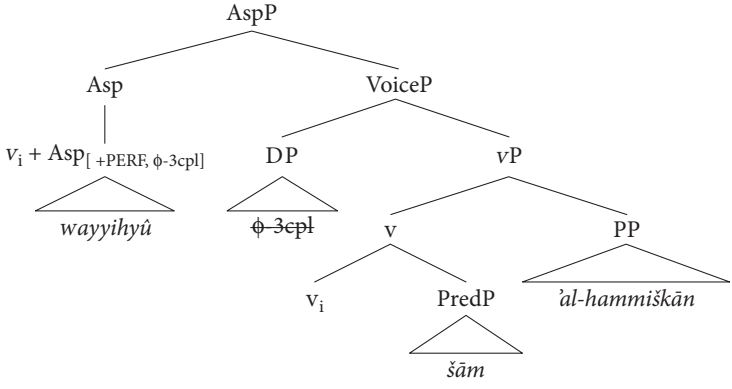
אַנְשֵׁי מִקְנֶה הָיוּ עֲבָדֶיךָ מִנְּעוּרֵינוּ וְעַד־עַתָּה

ʾanšê miqneh hāyû ʿăḇāḏêḵā min-nəʿûrênû wəʿaḏ ʿattâ

men.GEN livestock COP.PFV.3PL servants.2MSG from-youth.1PL CONJ.until now

Your servants have been men of livestock from our youth until now.

(33) Joshua 4.9
וַיִּהְיוּ שָׁם עַד הַיּוֹם הַזֶּה
wayyihyû šām ʿaḏ hay-yôm haz -zeh
CONJ.COP.PRET.3MPL there until ART-day ART-this
They have been there until this day.



The perfect use of *hyh* helps explain the use of this verb in Genesis 1.2. Consider Genesis 1.1–3 in (34).

(34) Genesis 1.1–3
בְּרֵאשִׁית בָּרָא אֱלֹהִים אֵת הַשָּׁמַיִם וְאֵת הָאָרֶץ: וְהָאָרֶץ הָיְתָה תֹהוּ וָבֹהוּ וְחֹשֶׁךְ עַל־פְּנֵי תְהוֹם וְרוּחַ
אֱלֹהִים מְרַחֶפֶת עַל־פְּנֵי הַמָּיִם: וַיֹּאמֶר אֱלֹהִים יְהִי אוֹר וַיְהִי־אוֹר
bərēʾšîṯ bārāʾ ʾĕlōhîm ʾēṯ haššāmayim waʾēṯ hāʾāreṣ:
[2] *wəhāʾāreṣ hāyəṯâ ṯōhû wāḇōhû wəḥōšeḵ ʿal pənê ṯəhôm*
wərûaḥ ʾĕlōhîm məraḥepeṯ ʿal-pənê hammāyim:
[3]*wayyōʾmer ʾĕlōhîm yəhî ʾôr wayhî ʾôr*

Holmstedt (2014) has proposed the following translation, "In the beginning period that God created the heavens and earth (the earth was formless and void, and darkness was over the surface of the deep, and the wind of God was hovering over the surface of the waters), God said, "Let light be!" And light was" (Holmstedt 2014: 147). This translation hinges on his interpretation of the initial word setting up an unmarked (asyndetic) relative clause within which the verb *bārāʾ* occurs. A central question he sets out to answer is the following: If the main verb is not *bārāʾ*, is it *hāytâ* in verse 2 or *wayyōʾmer* in verse 3? It is clear from his translation that he has decided *wayyōʾmer* is more likely and the sentence in verse 2 is parenthetical (Holmstedt 2014: 143ff).

My analysis supports Holmstedt's perspective that verse 2 is, in fact, parenthetical. This verse does not need *hyh* in order to disambiguate the temporal reference

of the clause and thus should be understood as past perfect.[10] This would render the translation as, "In the beginning period that God created the heavens and the earth (Now the earth *had been* formless and void, and darkness had been over the surface of the deep, and the wind of God had been hovering over the surface of the waters), God said, "Let light be!" And there was light."[11]

One anonymous reviewer pointed out several examples in CH where the wider context or the clause itself had sufficient information to provide TAM, so a verbless clause was used. The suggestion was that perhaps TAM licensing on *hyh* is obligatory primarily for disambiguation. This is certainly the case for *hyh* in past temporal contexts and may also be for the aspectual examples. It is even the case that in rare circumstances *hyh* may be absent in future tense if the surrounding context is clear.[12] This leads to an important question: If there are inflectional features specified on T, why are there cases where a copula does not appear? Consider example (35):

(35) 1 Samuel 28.19
וְיִתֵּן יְהוָה גַּם אֶת־יִשְׂרָאֵל עִמְּךְ בְּיַד־פְּלִשְׁתִּים וּמָחָר אַתָּה וּבָנֶיךָ עִמִּי
wə-yîtten yhwh gam ʾeṯ yiśrāʾēl ʿimməḵā bəyaḏ
CONJ-give.PRET.3MSG YHWH also OBJ Israel with.2MSG in.hand.GEN
pəlištîm û-māḥār ʾattâ û-ḇānêḵā ʿimmi
philistines CONJ-tomorrow you CONJ-sons.2MSG with.1SG
YHWH will give Israel as well as you into the hand of the Philistines and tomorrow you and your sons will be with me.

In this example the sentence is clearly referring to a time in the future but the second clause "you and your sons will be with me" is verbless. Usually the prefixed form of *hyh* is used in cases like this, but clearly it is not obligatory.

One explanation for this can be found in research which suggests that the role of context is sufficient in certain instances to situate a proposition in time. Progovac states, "If it is indeed true that a predication needs to be situated in time in order to qualify as a truth-evaluable proposition…the conclusion has to be that a syntactic tense node is not the only way to anchor a predication in time (Progovac 2006: 55). She states that this time anchor can be provided by the context and that a functional category like Tense can be taken over by this context. Since

10. As past perfect, there is also a T head with specified features which undergoes Fusion with the Asp head and *v* and receives a single exponent at Vocabulary Insertion.

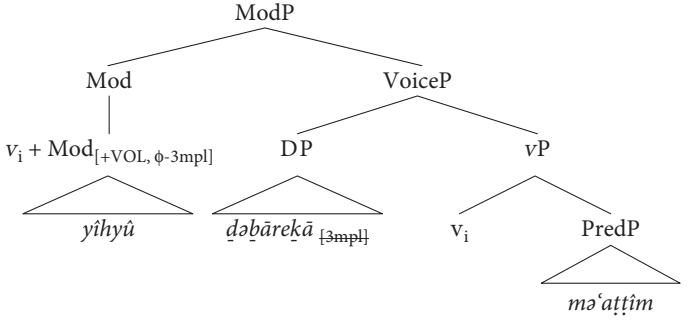
11. The verbless clauses which follow the clause with *hyh* repeat the past perfective reference as they do with past and present temporal reference elsewhere (Zewi 1999a: 203).

12. Many thanks to Jessie Scheumann for bringing some examples of this phenomenon to my attention.

Vocabulary Insertion happens after syntax and there are other operations which happen in post-syntax (Arregi & Nevins 2012), it is possible that the inflectional features are eliminated or even that the whole tense node is eliminated. Post-syntactic operations such as Impoverishment and Obliteratation which eliminate features or whole nodes prior to Vocabulary Insertion have been used increasingly to explain certain morphological phenomena across languages. The work by Nevins and Parrott (2010) and Arregi and Nevins (2012) and Embick (2016) all give examples of Impoverishment (or 'radical' impoverishment) operating on copulas in different languages, even on T. Vocabulary Insertion, according to the Late Insertion hypothesis, cannot take place when the Vocabulary Item contains features not present on the morpheme. This means that the features on T have somehow been eliminated in those cases where they are clear from context. How exactly Impoverishment works at the discourse-morphosyntax interfaces is still unclear, but work on this would likely provide some interesting results.

Completing the picture for the inflectional domain, there is a Mood head (Mod) which accounts for the jussive and imperative forms listed earlier.

(36) Qohelet 5.1
וְאַתָּה עַל־הָאָרֶץ עַל־כֵּן יִהְיוּ דְבָרֶיךָ מְעַטִּים
wəʾattâ ʿal hā-ʾāreṣ ʿal kēn yihyû ḏəḇārêḵā məʿaṭṭîm
CONJ-you on ART-earth upon thus COP.JUSS.3MPL words.2MSG few
You are on the earth, therefore let your words be few.



One more set of examples present a different context in which the copula is spelled-out overtly. This is the curious pattern mentioned in Chapter 3 with reference to age-referring expressions such as (37) and (38).

(37) 2 Kings 8.17[13]
בֶּן־שְׁלֹשִׁים וּשְׁתַּיִם שָׁנָה הָיָה בְּמָלְכוֹ
ben šəlošîm û-štayim šānâ hāyâ bəmolḵô
son.GEN thirty CONJ-two year COP.3MSG when.reign.INF.3MSG
He was 32 years old when he became king.

(38) 2 Samuel 5.4[14]
בֶּן־שְׁלֹשִׁים שָׁנָה דָּוִד בְּמָלְכוֹ
ben šəlōšîm šānâ dāwiḏ bəmolḵô
son.GEN thirty year David when.reign.INF.3MSG
David (was) 30 years old when he became king.

The clear difference between (37) and (38) is that (37) contains a copula and a pronominal reference (on the copula) while (38) is verbless and has a proper name. When understood within a realizational approach like DM, this phenomenon has a good explanation. The operation of Vocabulary Insertion must obey the Subset Principle (Halle 2000). This principle includes both the Subset Clause and the Maximal Subset Clause given in (39) and (40) respectively.

(39) *The Subset Clause*: A phonological exponent realizes a morpheme in the terminal string if the item matches all or a subset of the grammatical features specified in the terminal morpheme. Insertion does not take place if the Vocabulary Item contains features not present in the morpheme.

(40) *The Maximal Subset Clause*: Where several Vocabulary Items meet the conditions for insertion, the item matching the greatest number of features specified in the terminal morpheme must be chosen.

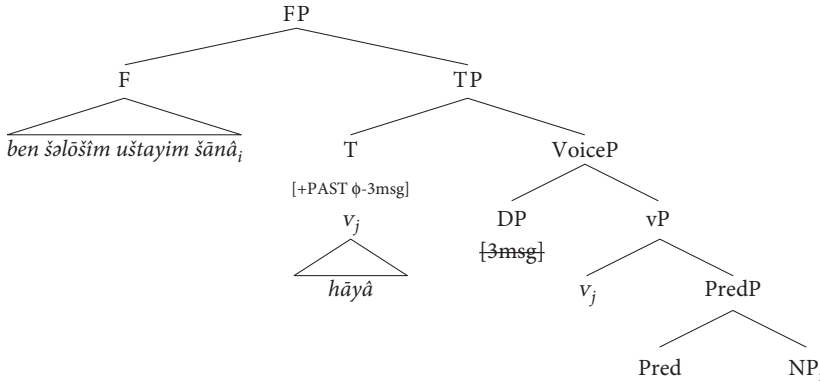
(Halle 2000: 128)

In the syntactic component of example (37), there are a bundle of φ-features [3msg] in the specifier of VoiceP, which is the location of the sentential subject. These features value the φ-feature requirement on T through Agree and lead to the Vocabulary Insertion of a rightly-inflected form of *hyh*. Instead of a 3msg pronoun in the subject position, an inflected form of *hyh* wins in PF as the Vocabulary Item matches the greatest number of features specified on the terminal node.

13. Also 2 Kings 14.2, 15.2, 15.33, 18.2; 2 Samuel 4.4.

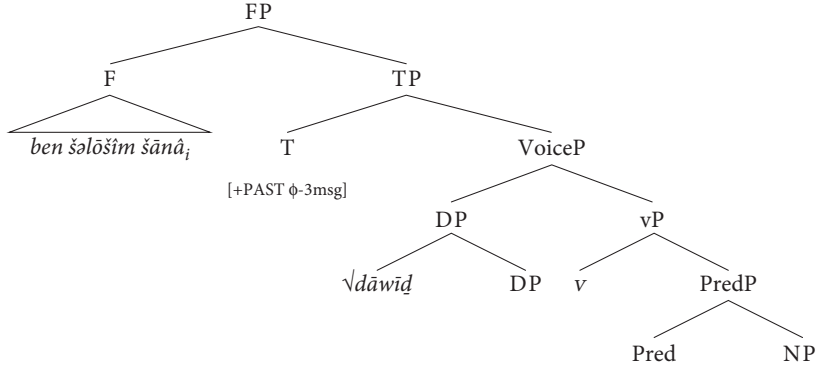
14. Also 2 Kings 12.1, 16.2, 21.1, 21.19, 22.1.

(41)[15]



Example (38) is different, however. There is a root proper name in the subject position which also bears [3MSG] φ-features, but these features do not lead to the insertion of *hyh* since they are not stranded on DP. The Agree relation still satisfies the φ-features on T and the context is sufficient to value the +Past feature on T, so there is no Vocabulary Insertion of *hyh* in these examples. Vocabulary insertion of (38) is reflected in (42).

(42)



The discussion thus far has dealt with the straightforward examples of copular sentences in CH. There are clear features in the inflectional domain whose single exponent is *hyh*. There are other copular sentences – introduced in Chapter 3 – which are not so straightforward, however. Take, for example, all the sentences in (43)–(45) which have a *hyh*–NP–PP construction.

15. Since it is not relevant to the current subject, I am ignoring the functional head which has caused the movement of the predicate to raise out of PredP and simply label it F for convenience.

(43) 1 Samuel 15.10
וַיְהִי דְּבַר־יהוה אֶל־שְׁמוּאֵל
wayhî *dəḇar* *yhwh* *ʾel* *šəmûʾēl*
CONJ.COP.PRET.3MSG word.GEN YHWH to Samuel
The word of YHWH came to Samuel

(44) 1 Chronicles 2.26
וַתְּהִי אִשָּׁה אַחֶרֶת לִירַחְמְאֵל
wattəhî *ʾiššâ* *ʾaḥereṯ* *l-îraḥməʾēl*
CONJ.COP.PRET.3FSG wife another to-Jerahmeel
Jerahmeel had another wife

(45) Genesis 2.7
וַיְהִי הָאָדָם לְנֶפֶשׁ חַיָּה
wayhî *hā-ʾāḏām* *lə-nep̄eš* *ḥayyâ*
CONJ.COP.PRET.3MSG ART-man to-creature alive
The man became a living creature

Example (43) is significantly different than the sentences evaluated thus far. The semantic role of the subject is different than a typical copular construction. It also appears to be eventive rather than stative. Example (44) also manifests some very different semantic roles. Example (45) has inchoative aspect and also seems eventive. It is quite interesting that the syntax is similar in each sentence but the relationship between subject and predicate are very different from a typical predicational sentence. To explain the mismatch in syntax and semantics in these sentences, we need to understand how the semantics of copular sentences works.

4.3 Semantics

In order to find an explanation for these examples we must look at the semantics of these constructions which build off the syntactic structures reviewed in Section 4.2. Following Halle & Marantz (1993), Wood (2015) and Myler (2016), the DM principle of Late Insertion applies at the LF interface in addition to the PF interface. Just as the principle of *Conditioned Allomorphy*–discussed in Section 4.1–takes place in PF, the principle of *Conditioned Allosemy* occurs in the LF interface (Wood 2012: 37–41; Marantz 2013b: 96–97; Myler 2016: 40). Allosemy, as represented in this book, can be described parallel to allomorphy. Just as different Vocabulary Items compete for insertion at PF, different denotations of functional morphemes compete for interpretation at LF. There are different contextually-determined denotations of the fixed terminal nodes Voice and *v*. As stated in Section 4.1, the role of the Voice head is to introduce an external argument. The

external argument introduced by this head is directly related to the semantics of the *v*P complement. If the *v*P is an activity, the external argument will be an Agent. If the *v*P is a state, the external argument will be the holder of that state which is called *Holder* following Kratzer (1996: 123). I will add a third alloseme which will become relevant for the present discussion which introduces an experiencer argument in the context of an achievement eventuality. These three allosemes are represented in (46).

(46) Allosemes of Voice
  a. $[\![\textbf{Voice}]\!] \leftrightarrow \lambda x_e.\lambda e_s.$Agent (x)(e) / ____ (agentive, dynamic event)
  b. $[\![\textbf{Voice}]\!] \leftrightarrow \lambda x_e.\lambda e_s.$Holder (x)(e) / ____ (stative eventuality)
  c. $[\![\textbf{Voice}]\!] \leftrightarrow \lambda x_e.\lambda e_s.$Experiencer (x)(e) / ____ (achievement eventuality)
  (Adapted from Myler 2016: 43)

Property-concept predicational copular sentences (with adjectival predicates in English) belong to the class of stative *v* allosemes. Their external head, then is interpreted as the Holder of the state defined in the complement of *v*P. Equative copular sentences and certain nominal predicates are interpreted differently. The *v* head also has several allosemes which can be compared to the different *aktionsarten* related to Vendler's categories (Vendler 1957):

(47) Allosemes of *v*
  a. $[\![v]\!] \leftrightarrow \lambda e_s.$activity(e)
  b. $[\![v]\!] \leftrightarrow \lambda e_s.$state(e)
  c. $[\![v]\!] \leftrightarrow \lambda e_s.$achievement(e)
  d. $[\![v]\!] \leftrightarrow \lambda x.x$

The fourth alloseme in (47d) is how the copula is reflected in Myler (2016: 42) who says that it does not contribute anything to the thematic interpretation of the sentence. He states that its sole purpose is to link non-verbal predicates to functional heads (Myler 2016: 42). The discussion below will demonstrate how copulas can realize other types of *v*. Our discussion of the semantics of copular constructions below will demonstrate the necessity of these different allosemes.

The allosemic approach provides an alternate explanation for how there can be different semantic roles for subjects without positing that the verb assigns different thematic roles to its subject (a lexicalist explanation). Instead, the semantic role of the subject is determined by the composition of the complement of Voice. With these assumptions we will look at how to explain the semantic differences of the challenging copular sentences just introduced.

In the semantics component, the type of eventuality in *v* is affected by the PredP in its complement. Recent research has suggested that there are multiple Pred heads which have differing effects on the syntax and semantics. Among other

distinctions, the so-called stage-level/individual-level distinction has been attributed to two different Pred heads: $Pred_{STAGE}$ and $Pred_{INDIV}$ (Adger & Ramchand 2003; Markman 2008; Myler 2018). In Spanish, this distinction leads to the spell out of two different copulas *ser/estar*. Since there are different Vocabulary Items which reflect these differences, this is not allosemic variation as in *v* or Voice. The type of Pred head is found in the syntax and leads to different interpretation in LF and pronunciation in PF. So we will need to discuss both syntax and semantics in this section. The type of *v* used depends upon the type of Pred head in the syntax.

It was already noted by Cowper that some instances of *be* have more meaning than just simple linking between arguments. The examples in (48)–(49) demonstrate this phenomenon.

(48) a. Martina was being polite.
b. Wayne was rude three times.

(49) a. Martin was lethargic all day.
b. Martin was deliberately lethargic all day. (Cowper 2010: 10–11)

Both sentences in (48) seem to be eventive and agentive. Example (49a) is eventive but not agentive while (49b) becomes agentive with the included adverb. Adger and Ramchand (2003) and Markman (2008) also have proposed a Pred head which introduces an eventive variable to its complement. Markman's hypothesis is that this Pred eventive head (called $Pred_{Ev}$) explains the instrumental case in Russian copular sentences such as (50) and (51).

(50) *Dima ø/byl pisatel'.*
Dima is/was writer.$_{NOM}$
'Dima is/was a writer.'

(51) *Dima byl/budet pisatelem* (Markman 2008: 188)
Dima was/will be writer.$_{INST}$
'Dima was/will be a writer.'

Example (50) with the nominative has an inherent or permanent property, but Example (51), with the instrumental predicate denotes a temporary, transient, or changeable property (Markman 2008: 188). Harves (2002) provides (52) and (53) to illustrate the same phenomenon:

(52) *Anna byla professor, a potom stala dekanom*
Anna was professor-NOM and then became dean

(53) *Anna byla professor-om, a potom stala dekanom* (Harves 2002: 258)
Anna was professor-INST and then became dean
'Anna was a professor and then became a dean'

Example (52) implies that even though Anna has become a dean, she is still, in some sense, a professor. Example (53), however, implies that once Anna became a dean she stopped being a professor (Harves 2002: 258).

Markman (in agreement with Adger & Ramchand 2003) says the $Pred_{Ev}$ introduces a spacio-temporal (event) argument which licenses instrumental case in Russian (Markman 2008: 196). Additionally, this eventive notion does not hold inherently of the individual but rather that the relevant eventuality which is true of the individual has ended (Markman 2008: 198). Markman relates this event argument to what has been traditionally labeled *Aktionsart* or situation aspect (Markman 2008: 199). Adger and Ramchand (2003) have identified something very similar for Scottish Gaelic as well.

Markman proposes that there is an AspP above $Pred_{Ev}$ which accounts for the run-time of the event argument introduced by $Pred_{Ev}$. This run-time introduced by AspP serves to individuate the event in the same way that determiners make it possible to refer to count nominals (Markman 2008: 200). For the sentence in (51), Markman proposes the following LF spell-out from the most embedded constituent outward. The notation in (54) should be read from the bottom up.

(54) TP→ $\exists t \exists e$ [writer (e, dima) & τ(e) o t & t < n]
AspP→ $\lambda t \exists e$ [writer (e,dima) & τ(e) o t]
Asp→ $Q_{<s,t>}$ $\lambda t \exists e$ [Q(e) & τ(e) o t]
$Pred_{Ev}$P→ λe_s(writer(e,dima))
Dima→ dima
$Pred_{Ev}$'→ $\lambda x_e.\lambda e_s$.(writer(e,x))
–the NP is shifted from <e,t> to <e,<st>>
$Pred_{Ev}$→ $\lambda P_{<e,t>}.\lambda x_e.\lambda e_s$.(P(e,x))
–$Pred_{Ev}$ forced a type-shift of the NP
NP(writer) → λy_e(writer(y))

She explains the notation saying:

> In [54] <i,t> stands for a set of instants–a time interval; <st> is a set of events; and "o" denotes overlap. The T (tense) provides existential closure over the interval t and locates it with respect to the utterance time *n*; thus t<n denotes future, and t o n denotes present. (Markman 2008: 200)

If this $Pred_{Ev}$ is present in the syntax, the semantics which reads the syntax will necessarily be affected. If there is a $Pred_{Ev}$ underlying sentences like *Martha was rude three times*, it becomes easier to explain how a copular sentence can receive an eventive/agentive interpretation in LF. The existence of a $Pred_{Ev}$ in the syntax of CH explains the different semantic interpretations of the interesting examples (43)–(45). In the same way that $Pred_{INDIV}$ or $Pred_{STAGE}$ leads the phonological

component to spell-out either *ser* or *estar* in Spanish and that $Pred_{Ev}$ leads to instrumental case marking in Russian, the presence of $Pred_{Ev}$ in CH requires the spell-out of *hyh* and creates the different semantic interpretations. The following examples will demonstrate how this works. Take for example the inchoative aspect of example (55).

(55) 2 Samuel 8.2
וַתְּהִי מוֹאָב לְדָוִד לַעֲבָדִים
wattəhî *môʾāḇ* *lə-ḏāwīḏ* *la-ʿăḇāḏîm*
CONJ.COP.PRET.3FSG Moab to-David to.ART-servants
The Moabites became servants to David.

It has been established in grammars of CH that the verb *hyh* plus the inseparable preposition *lamed* prefixed to the complement indicates the inchoative aspect of *becoming*. The semantics of these constructions differ from simple copular sentence because of the inchoative semantics which must be accounted for. Inchoative (or ingressive) predicates are a type of achievement. If there is a $Pred_{Ev}$ in the complement of *v*, perhaps the alloseme $[\![\mathbf{v}]\!] \leftrightarrow \lambda e_s$.achievement(e) is introduced in the context of $Pred_{Ev}$. This specific alloseme of *v* determines the type of Voice head which is introduced. In the context of an achievement eventuality, an Experiencer argument is introduced into the specifier of Voice: $[\![\mathbf{Voice}]\!] \leftrightarrow \lambda x_e.\lambda e_s$.Experiencer (x)(e) / _____ (achievement eventuality).

Types of achievements can vary, however. The semantics of inchoatives are demonstrated by Marín and McNally (2011) as follows:

(56) λeλe′λP[Boundary-Happening(e)P∧ Eventuality(e′) ∧ Left-Boundary (e, e′) ∧ P(e′) ∧ ¬ ∃e″ [e″«e′ ∧ P(e″ ⊕e′)]]

This notation follows the work of Piñón who distinguishes between two kinds of entities: *happenings*, which include events, states, and processes; and *boundary happenings*, which are the boundaries (onsets or ends) of happenings (Piñón 1997). The difference between happenings and boundary happenings is that while happenings have a temporal trace (τ) corresponding to an interval (t), a boundary happening has a temporal trace corresponding to a *point*. Achievements typically denote events without any notable duration in time. The predicate types, instead, denote boundary happenings like inchoatives or those that are telic.

Marín and McNally describe (56) in the following:

> [The inchoative] is a 3-place relation between a left boundary happening *e*, a happening *e′* that it is the boundary of, and the description *P* of that happening. The final clause of the definition guarantees that *e′* is not immediately preceded (≪) by any other happening *e″* that could form part of a larger happening with *e′* and

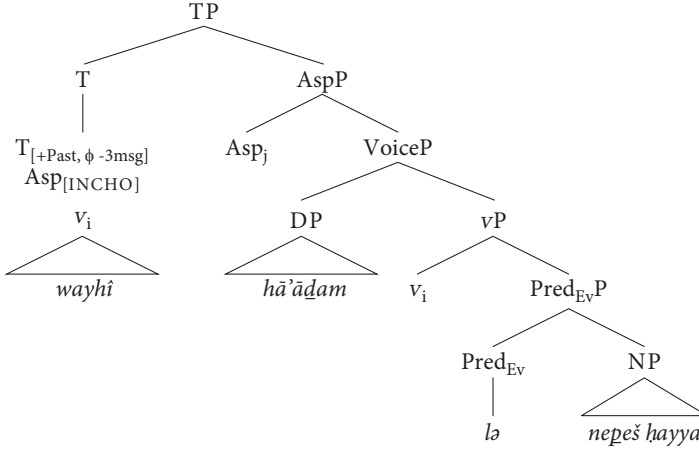
which would also be describable as *P*; this larger happening is represented as the sum of *e*″ and *e*′ (*e*″ ⊕*e*′).

The semantics of the inchoative in (55) as a particular type of achievement provides further specification for the type of achievement reflected in *v*. Since it is an achievement eventuality the VoiceP assigns the role of Experiencer to the external argument. In CH, then, Pred_{Ev} creates an achievement eventuality which can receive inchoative semantics from *v*. The presence of this Pred_{Ev} creates the conditions which necessitate the presence of *hyh*. The eventive nature of this predicate must be anchored in time and thus is always spelled-out as the copula *hyh* in PF. Unlike simple copular sentences, this inchoative use of *hyh* requires the presence of the copula in every case.

(57) Genesis 2.7
וַיְהִי הָאָדָם לְנֶפֶשׁ חַיָּה
wayhî *hā-ʾāḏām* *lə-nep̄eš* *ḥayyâ*
CONJ.COP.PRET.3MSG ART-man to-creature alive
The man became a living creature

The Vocabulary Insertion is represented in (59). In the syntactic component, the feature set of *v* is categorized and moved to the inflectional domain where through fusion it joins both the Asp and T head which both have specified features in this example. The Fusion of *v*, T, and Asp receives a single exponent in PF.

(59)



In (59) I represent the preposition *lə* is the overt spell-out of $\text{Pred}_{\text{Ev.}}$ This is supported by its use in other types of sentences. As I reviewed in Chapter 2, Pred is overt in different contexts for different languages. Since overt Pred has been identified in other types of constructions cross-linguistically, such as those using

causative verbs, if *lə* was the overt representation of Pred in CH, we would expect it to appear in some of these constructions as well. This is indeed what we find in CH. In the causative construction in (60), *lə* appears precisely where Pred would be expected to appear.

(60) Genesis 12.2
וְאֶעֶשְׂךָ לְגוֹי גָּדוֹל
wĕ-ʾeʿeśkā *lə-gôy* *gāḏôl*
CONJ- make.IPFV.1SG.2MSG to-nation great
I will make you a great nation.[16]

This preposition is not obligatory in these contexts, however, which is also true of overt Pred in many other languages. A more detailed discussion of *lamed* as the overt representation of Pred can be found in the recent research of Boulet (2019) on secondary predicates in CH.

This overall hypothesis gains strength when the directional construction is evaluated in similar terms. Examples (61) and (62) provide examples of the directional construction.

(61) 1 Samuel 15.10
וַיְהִי דְּבַר־יהוה אֶל־שְׁמוּאֵל
wayhî *dəḇar* *yhwh* *ʾel* *šəmûʾēl*
CONJ.COP.PRET.3MSG word.GEN YHWH to Samuel
The word of YHWH came to Samuel

(62) Jeremiah 7.1
הַדָּבָר אֲשֶׁר הָיָה אֶל־יִרְמְיָהוּ מֵאֵת יְהוָה
had-dāḇār ʾăšer *hāyâ* *ʾel* *yirməyāhû* *mē-ʾēṯ* *yhwh*
ART-word which COP.PFV.3MS to Jeremiah from-with YHWH
The word which came to Jeremiah from YHWH

What is in view in these examples is not an inchoative achievement, but a telic achievement. Marín and McNally connect the semantics of telic predicates with those of inchoatives, except the end boundary is in view. They describe this with the formulation in (63).

(63) telic: λeλe′λP[Boundary-Happening(e) ∧ Eventuality(e′) ∧ Right-Boundary (e, e′) ∧ P(e′) ∧ ¬◊∃e″ [e′«e″ ∧ P(e′ ⊕e″)]

The obvious difference between (63) and (56) is that instead of the left-boundary (beginning), telic predicates have to do with the right-boundary. They also add

16. This is called an "indirect object" *lamed* in Waltke-O'Connor 1990: 209. Many of the other examples listed in this section can equally be explained as the overt representation of Pred.

that telic predicates must specify not only that there is no larger happening (e′⊕e″) describable by the predicate in question but also that no such happening can exist" (modeled with ¬◊∃e″) (Marín & McNally 2011). Example (64) demonstrates that the directional clitic *-āh* may also be used instead of a preposition.

(64) Joshua 16.8
וְהָיוּ תֹצְאֹתָיו הַיָּמָּה
wəhāyû *ṯōṣ'ōṯāyw* *hay-yāmmâh*
CONJ.COP.WQTL.3MPL boundaries.3MSG ART-sea.DIR
Its boundaries went to the sea.

So, in these so-called directional predicates, I am suggesting that there is also an underlying Pred_{Ev} which introduces the eventive information that is then restricted by a *v* which delimits the type of eventuality as a telic achievement. Both inchoative and telic eventualities are boundary happenings and not eventualities with any meaningful duration. The overt Vocabulary Insertion of *hyh*, which is obligatory in these types of sentences, is the single exponent of the categorized feature bundle from *v*, the Asp head which anchors the boundary happening of the telic eventuality, and the T head which is specified for +past.

Also, in these sentences we have a clear experiencer which is introduced into the specifier position of the Voice head. If this phenomenon were approached with lexicalist assumptions, one would be forced to account for the multiple semantic roles for the subject of *hyh.* These data render questionable the lexicalist hypothesis that all potential semantic roles are contained in the verbs within the Lexicon. Within the present framework, then, we can state that the existence of Pred_{Ev} creates the conditions in which *hyh* must be present in the phonological spell-out of these syntactic/semantic structures. Since spell-out happens from the most embedded item outward, Pred_{Ev} is encountered before *v* and dictates what alloseme of *v* is used. In contrast, the *v* which exists in verbless clauses does not require an overt form of *hyh* because there are no features specified in the inflectional domain which need an explicit exponent.

One additional context where Pred_{Ev} exists is in sentences which do not have a complement. These sentences have been called "one place existentials" (Gast & Haas 2011: 146).

(65) Isaiah 66.2
וְאֶת־כָּל־אֵלֶּה יָדִי עָשָׂתָה וַיִּהְיוּ כָל־אֵלֶּה נְאֻם־יהוה
wə-'eṯ *kol 'ēlleh* *yāḏî* *'āśāṯâ* *wayyihyû* *ḵol 'ēlleh*
CONJ-OBJ all these hand.1SG made.PFV.3FSG CONJ.COP.PRET.3MPL all these
nə'um *yhwh*
word.GEN YHWH
"All these my hand has made and all these came to be" declares YHWH.

Defining constructions like these as "existentials" will be called into question in Chapter 6. In addition to their lack of locational specification, one of the primary differences between these constructions and existentials is that what is in view is the onset of the state–the achievement eventuality mentioned above. These constructions have the same achievement semantics as the other constructions reviewed above. The only difference is that they have no specified complement. Below are a few more examples.

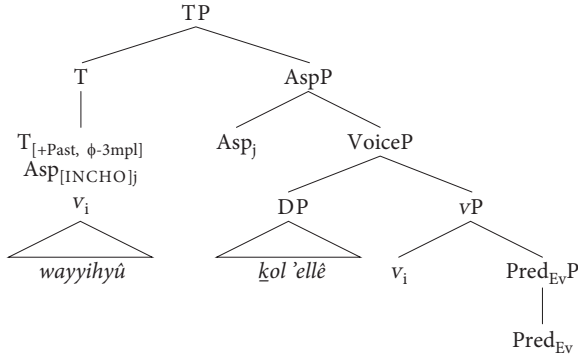
(66) Qohelet 1.9
הַדָּבָר אֲשֶׁר הָיָה אֶל־יִרְמְיָהוּ מֵאֵת יְהוָה
mâ še-hāyâ hû' šey-yihyê
What which-COP.PFV.3MSG 3MSG which-COP.IPFV.3MSG
What has been is what will be.

(67) Psalm 33.9
כִּי הוּא אָמַר וַיֶּהִי
kî hû' 'āmar wayyehî
for 3MS speak.PFV.3MS CONJ.COP.PRET.3MSG
For he spoke and it came to be.

(68) 1 Samuel 4.7
אוֹי לָנוּ כִּי לֹא הָיְתָה כָזֹאת אֶתְמוֹל שִׁלְשֹׁם
'ôy lānû kî lō' hāyəṯâ kā-zōṯ 'eṯmôl šilšōm
woe to.1PL for NEG COP.PFV.3FSG like-this formerly yesterday
Woe to us! For nothing like this has ever happened to us before.

It is evident from the examples above that these constructions may also allow a null subject. While the subject may optionally be null, there is no complement, not even in null form. The eventuality introduced by Pred_{Ev} is the context for the achievement semantics of *v.* Like the inchoative examples, an Experiencer argument is introduced by Voice and Fusion in the inflectional domain leads to the spell-out of the single exponent. These examples have no complement for PredP, so the denotation is simply that an achievement eventuality involved the Experiencer subject. Vocabulary Insertion for Example (65) is represented in (69).

(69)



The Pred$_{Ev}$ analysis presented above accounts for one additional puzzling phenomenon about the verb *hyh*. CH is like other Semitic languages in that it uses a complex system of derivational morphology which modifies a verbal root into seven derived stems (called *binyamin*) which create differences in voice, intensiveness, and causativity (see Benton 2009). The verb *hyh* is unique in not participating in the *binyanim* system. However, in a very small number of examples in the Hebrew Bible, *hyh* exists in the *Niphal* stem which is used to form the passive.[17] If *hyh* is a pure stative auxiliary, one would not expect it to passivize. The data present an interesting correlation: every example of the *Niphal* form of *hyh* exists in one of the conditions which have an underlying Pred$_{Ev}$ head, which were discussed above. The occurrences of this form are categorized in the examples below.

Example (70) is the only instance of the *Niphal* of *hyh* combined with the preposition *lamed* to express the inchoative sense.

(70) Deuteronomy 27.9
הַיּוֹם הַזֶּה נִהְיֵיתָ לְעָם לַיהוָה אֱלֹהֶיךָ
hayyôm haz-zeh nihyêṯā lə-ʿām la-yhwh ʾĕlōhêḵā
ART-day ART-this COP.PFV.PASS.2FSG to-people to-ART.YHWH god.2MSG
This day you have become the people of YHWH your God.

Most of the instances of the *Niphal* of *hyh* have no complement, as in (71):[18]

(71) Judges 20.3
אֵיכָה נִהְיְתָה הָרָעָה הַזֹּאת
ʾêḵâ nihyəṯâ hā -rāʿâ haz-zōʾṯ
how COP.PFV.PASS.3FSG ART-evil ART-this
How did this evil thing happen?

17. Special thanks to Vincent DeCaen for an engaging discussion of these constructions.

18. Ex. 11.6; Dt. 4.32; Judg. 19.30, 20.12; 1 Kings 1.27; Jer. 5.30, 48.19; Ezek. 21.7, 39.8; Joel 2.2; Prov. 13.19; Dan. 12.1; Neh. 6.8; Dan. 8.27.

Two examples are directionals, as in (72):[19]

(72) 2 Chronicles 11.4
כִּי מֵאִתִּי נִהְיָה הַדָּבָר הַזֶּה
kî mēʾittî nihyâ had- dāḇār haz-zê
for from.with.1SG COP.PFV.PASS.3MSG ART-thing ART-this
For this thing has come from me.

One example functions as the subject phrase of a verbless clause with the added meaning of fulfilled potential as in (73). This example can be categorized along with those that have no complement.

(73) Proverbs 13.19
תַּאֲוָה נִהְיָה תֶּעֱרַב לְנָפֶשׁ
taʾăwâ nihyâ teʿĕraḇ lĕ-nāp̄eš
desire COP.PFV.PASS.3MSG be.sweet.IPFV.3FSG to-soul
Desire fulfilled is sweet to the soul

A detailed description of the template morphology of Semitic verbs is outside the scope of this book, but it is important to comment briefly on the morphology in these examples. The *Niphal* stem of CH is distinguished by its *ni-* prefix and a certain vowel template. It is typically used to construct the passive, middle, and reflexive based on a verbal root (*see* Benton 2009). Doron (2003) has written about voice and Semitic template morphology and states that there is a morpheme which is introduced by Voice for the *Niphal.* It is possible that when the *Agree* relation happens between the experiencer argument in the specifier of Voice and the unvalued φ-features on T, this morpheme raises to T and then received pronunciation as *ni-* at Vocabulary Insertion. More research on the template morphology of verbs in CH would likely provide more insight about how this prefixed morphology is pronounced on these copular sentences. The important point here, though, is that the *Niphal* of the CH copula is only found in those contexts where Pred_{Ev} exists in the narrow syntax.

In summary, then, the semantic spell-out in LF for copular sentences starts with multiple types of Pred heads which are read from the syntax and determine the type of allosemes of both *v* and Voice. The principle of Late Insertion applies at the LF level as well as at PF. That is, the content at the bottom of the derivation is interpreted first which then determines the interpretations higher up.

With this approach to Vocabulary Insertion for the CH copula *hyh*, we are now in a better position to explain why PRON exists where it does, continuing the discussion from Chapter 3. What are considered genuine examples of PRON in

19. Also 1 Kings 12.24; Dan. 2.1.

CH sentences is not uncontroversial. There are many sentences which fulfill the criteria for being genuine examples of left-dislocation with a resumptive pronoun rather than PRON, such as (74).

(74) Genesis 2.14
וְהַנָּהָר הָרְבִיעִי הוּא פְּרָת׃
wə-han -nāhār hā-rəḇîʿî hûʾ pərāṯ
CONJ-ART- river ART-fourth 3MSG Euphrates
The fourth river, it (is) the Euphrates

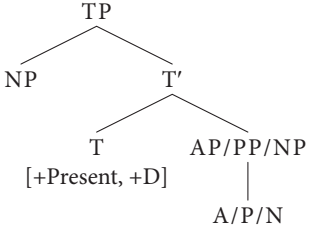
Others, such as (75) and (76) do not fulfill the requirements for genuine left-dislocation constructions and must be classified as instances of PRON.

(75) 1 Chronicles 17.26
וְעַתָּה יְהוָה אַתָּה־הוּא הָאֱלֹהִים
wə-ʿattâ YHWH ʾattâ hûʾ hā-ʾĕlōhîm
CONJ-now YHWH 2MSG 3MSG ART-god
And now, YHWH, you (are) God.

(76) Isaiah 37.16
אַתָּה־הוּא הָאֱלֹהִים לְבַדְּךָ
ʾattâ hûʾ hā-ʾĕlōhîm ləḇaddəḵā
2MSG 3MSG ART _ god alone.2MSG
You (are) God, you alone

The lack of person agreement in (75) and (76) is the clearest indication that this is not a resumptive pronoun. Lack of person agreement is a cross-linguistic phenomenon for languages which have PRON. In Chapter 3 I reviewed Benmamoun's syntactic description of Arabic verbless clauses in which he proposed an explanation for the lack of person agreement in Arabic sentences with PRON.

(77) Arabic Present Tense Features



(Benmamoun 2008: 115)

Since PRON only exists in present tense in Arabic and the copula *kwn* does not appear in present tense, Benmamoun proposes that the +D features on T are spelled-out as PRON. The +V feature of past and future tense displays the agreement

pattern of verbs which is +person, +number, +gender. The +D feature displays the agreement pattern of nouns which is only +number and +gender. This leads Benmamoun to recognise the pronominal element in Arabic present tense sentences to be the overt realization of the +D feature which defaults for 3rd person (Benmamoun 2008: 125).

CH displays the same behaviour as Arabic. PRON only occurs in present tense and (75) demonstrates that person agreement is not realized on PRON. Example (78) demonstrates that CH does permit number agreement in PRON.

(78) 1 Chronicles 1.31
אֵלֶּה הֵם בְּנֵי יִשְׁמָעֵאל
ʾēlleh hēm bənê yîšmāʿēʾl
these 3MPL sons.GEN Ishmael
These (are) the sons of Ishmael

The analysis of Benmamoun appears at first to explain the existence of PRON in CH, but additional analyses on these constructions have revealed important findings.

In her analysis of PRON in Modern Hebrew, Rothstein (2001) explains that there are semantic distinctions between sentences with and without PRON. Examples (79) and (80) illustrate this distinction.

(79) *orvim *(hem) sxorim*
ravens PRON black
Ravens are black

(80) *tel aviv *(hi) be-yisrael* (Rothstein 2001: 233)
Tel Aviv PRON in Israel
Tel Aviv is in Israel

Both (79) and (80) require PRON to be grammatical. In Example (81), however, PRON is optional.

(81) *ha-samaim (hem) kxolim*
ART-sky PRON blue
The sky is blue

With PRON, Example (81) would receive the interpretation that the sky has the general property of being blue. Without PRON, the interpretation would be that the sky is blue now as opposed to being overcast or some other possibility. PRON is obligatory in (79) and (80) because the only grammatical interpretations of these sentences have a general timeless interpretation. This is the stage/individual level distinction that has become a well-attested phenomenon in predication cross-linguistically. Rothstein says, "Where Pron is optional in predicative sentences,

its presence/absence often correlates with a difference in meaning: when Pron is present, the sentence has a more individual level reading, and when Pron is absent, it has more of a stage level interpretation" (Rothstein 2001: 233). In Chapter 2, I reviewed the claim that there is a functional head Pred which is overt in some languages. This means that PRON in Modern Hebrew could be the overt manifestation of Pred in individual level predicates. In her analysis of similar constructions in Polish, Bondaruk makes precisely this claim for the pronominal clitic *to* (Bondaruk 2013, 2017). Polish is distinct from other languages by having a pronominal element serving in this type of construction in addition to a verbal copula as in (82).

(82) *Warszawa jest to stolica Polski*
Warsaw-NOM is PRON capital.NOM Poland
Warsaw is the capital of Poland. (Adapted from Bondaruk 2013: 234)

Bondaruk labels PRON the overt realization of Pred and the copula as *v* (Bondaruk 2017). Polish as well as other languages with this construction are notorious for having defective φ-agreement. This defective agreement is common in CH as well, and may provide evidence for what is happening. Instead of proposing that the defective φ-agreement of PRON is due to +D features on T (Benmamoun 2008), perhaps there is a case of Impoverishment in these constructions. Impoverishment is an operation proposed in DM which explains how certain features are deleted prior to phonological spell-out. A few examples will demonstrate how this works.

Though there is considerable debate about which examples qualify as instances of PRON (though see Naudé and Miller-Naudé 2017), the most frequent and uncontroversial examples which uses PRON in CH are equational constructions such as (83) and (84).

(83) Genesis 36.8
עֵשָׂו הוּא אֱדוֹם
ʿēśāw hûʾ ʾĕḏôm
Esau 3MSG Edom
Esau (is) Edom.

(84) Isaiah 37.16
אַתָּה־הוּא הָאֱלֹהִים לְבַדְּךָ
ʾattâ hûʾ hā-ʾĕlōhîm ləḇaddəḵā
2MSG 3MSG ART_god alone.2MSG
You (are) God, you alone

The necessary question is what features can account for the exponent PRON? One of the allosemes of *v* that received no discussion in Section 4.3 is the one which is utilized for equational predicates (i.e. non-stative, non-achievement predicates). This alloseme is ⟦v⟧ ↔ λx.x and it makes no semantic contribution to the copular

sentence. It does not seem like *v* is the source of PRON, especially since PRON is not categorized with a *v*. Naudé claims that PRON is necessary in in equational (his *specificational*) clauses because the second NP cannot function as a predicate which assigns functions to the subject. PRON is then introduced as a *saving device* which can assign the requisite features to yield a grammatical sentence (Naudé 2001: 110–111). This insight is important in that it draws attention to the relationship between the subject and object DPs. I have already noted that the Pred head which exists in the syntax is directly responsible for the interpretation and pronunciation in the derivation higher up. I have demonstrated that in other languages $\text{Pred}_{\text{INDIV}}$ and $\text{Pred}_{\text{STAGE}}$ account for different copulas. As equational predicates, these sentences inherently receive an individual level reading. The $\text{Pred}_{\text{INDIV}}$ creates the context where PRON is inserted. The features +person, +number, +gender still need to be valued on T, since these are not tenseless sentences. These φ-features are supplied by the subject, except the person feature has been deleted. This happens in the context of a $\text{Pred}_{\text{INDIV.}}$ The following Impoverishment rule thus explains PRON in CH:

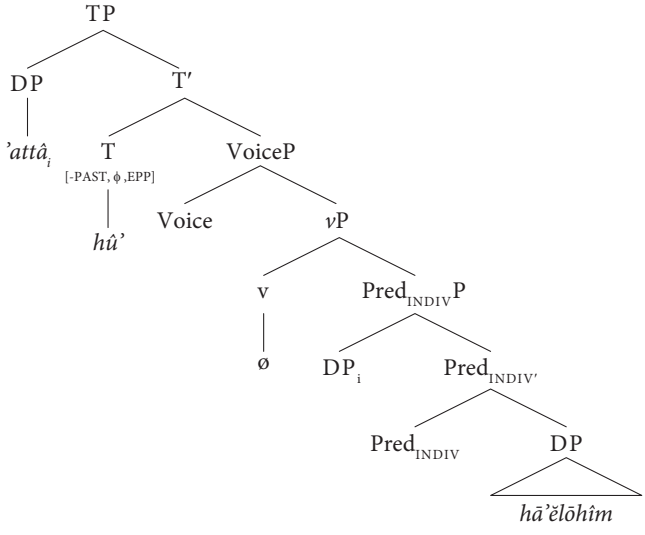
(85) $\{+\text{Person}\} \rightarrow \text{ø} \; / \; \text{T}_{[\text{-PAST}]}\_\_\_\_\text{Pred}_{\text{INDIV}}$

This rule means in the morphological component, after syntax, in present tense copular sentences with a $\text{Pred}_{\text{INDIV}}$ the person features will be deleted, leading to the otherwise case which is 3rd person.[20] In Vocabulary Insertion, the PF inserts a Vocabulary Item which matches the features on T. In verbal sentences and copular sentences with an overt copula, these valued features are shown as inflections on the verbs. Since there are no features which are adjoined with a *v*-categorizer, they are spelled out as they exist on T, as pronouns with gender and number features, but default person. Thus, PRON in CH is not the spell-out of $\text{Pred}_{\text{INDIV}}$ as Rothstein has claimed for Modern Hebrew; it does, however, create the context in which PRON is spelled-out because of the φ-features on T, a position much closer to what Benmamoun (2008) claimed for Arabic. A syntactic structure is proposed for CH sentences with PRON.[21]

(86) Isaiah 37.16
אַתָּה־הוּא הָאֱלֹהִים לְבַדְּךָ
ʾattâ hû' hā-ʾĕlōhîm laḇaddəḵā
2MSG 3MSG ART–god alone.2MSG
You (are) God, you alone

20. The discussion in Chapter 5 will add further evidence that for φ-features, 3rd person, masculine gender, and singular number are the default or "otherwise" case.

21. There is an EPP feature on T which accounts for the subject moving to the specifier of T.



With this analysis of PRON, it is therefore a semantically vacuous element which attributes its presence to the process of licensing features on T, which are essential properties of copulas. This means that PRON may rightly be called a *pronominal copula* as it is often used for similar constructions that occur in other languages. An Impoverishment rule explains why the exponent appears with the person features deleted.

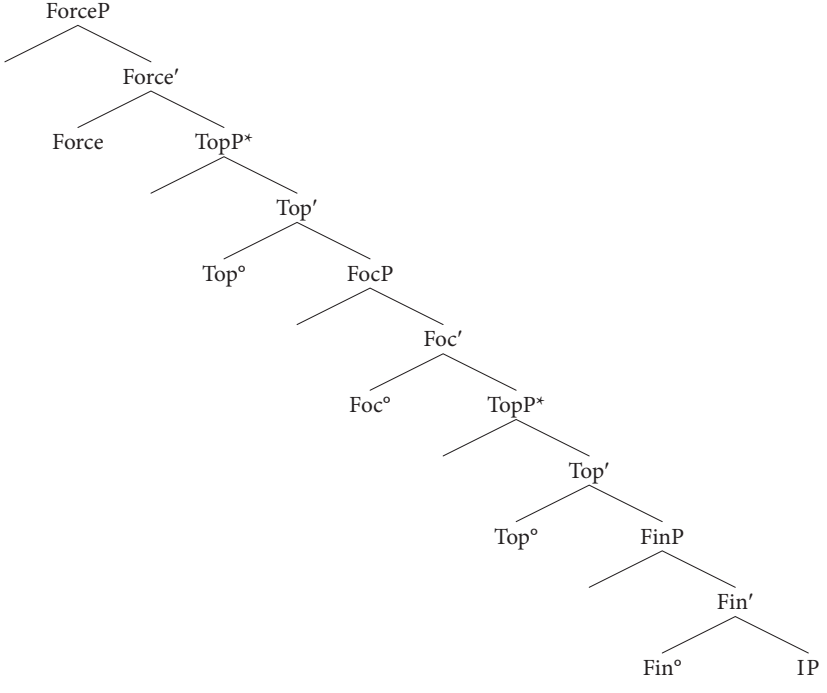
There is one additional use of the copula in CH which has received a lot of attention in previous research. This construction places the copula in the highest position in the left-periphery. In the following chapter I will give a review of the recent analysis of this construction I provide in Wilson (2019) and Wilson (forthcoming) and will situate it within this broader discussion of CH copular sentences.

CHAPTER 5

The copula in the left-periphery

The left periphery of CH has been demonstrated to be very rich (Naudé 1990, 2001; DeCaen 1995; Holmstedt 2002, 2009, 2011, 2014; Cowper & DeCaen 2017, Miller-Naudé and Naudé 2019). The left periphery is traditionally the layer of syntax which accounts for clause-type (called ForceP), information structural nodes (TopicP and FocusP/FocP), and a Finiteness node (FinP). The Left Periphery is traditionally called CP (complementizer phrase) and is split (minimally) into the structure developed by Rizzi (1997) in (1):

(1) The Left-Periphery (CP)



(Rizzi 1997: 297)

ForceP presents the type of clause (declarative, interrogative, comparative, etc.), TopP can attract an *aboutness* topic or framing topics; FocP can attract a new item

set against a presupposition or a contrastive item; FinP reflects whether the clause is finite or non-finite.

The left-periphery accounts for the greatest diversity in word order for CH sentences and thus has received the greatest treatment by hebraists out of all the domains of syntax. Naudé (1990, 2001) pioneered an analysis of the CH left-periphery from a generative perspective in his analysis of dislocated constituents such as (2).

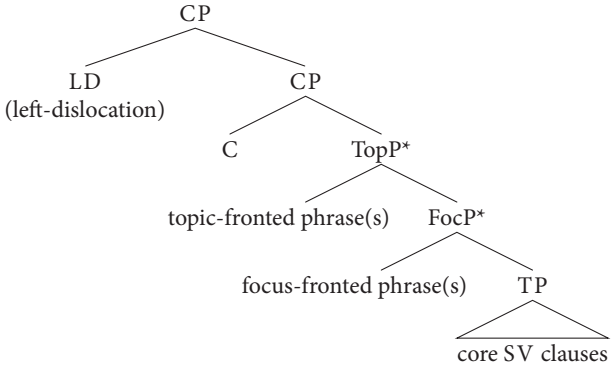
(2) Psalm 89.13
צָפוֹן וְיָמִין אַתָּה בְרָאתָם
ṣāp̄ôn wə -yāmîn ʾattâ ḇərāʾṯām
north CONJ-south 2MSG create.PFV.2MSG.3MPL
[$_{LD}$The north and south]- you created them.

Naudé, working from within a Government and Binding approach, claims that dislocated constituents like those bracketed in (2) are base-generated in a CP-adjunction position. In contrast to constituents that undergo *fronting* from a lower position in the syntax, dislocated constituents leave no gaps, but have a resumptive element lower in the clause (Naudé 1990: 126). Naudé also demonstrates that the movement analysis does not work since the dislocated constituent can be assigned a different case from its co-indexed resumptive element (Naudé 1990: 126). Naudé makes an important claim that CP-adjuncts can be full CPs that are recursive and allow stacking of multiple constituents (Naudé 1990: 127).

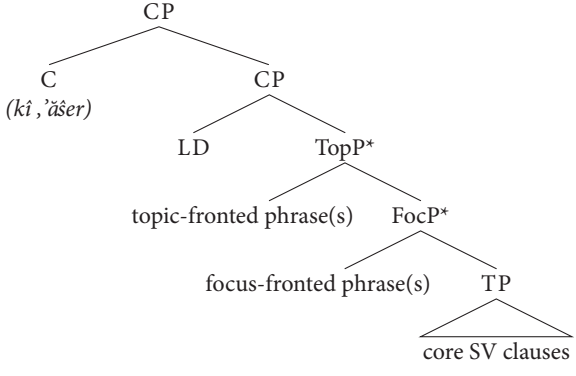
Holmstedt (2014) also adds to the treatments of the CH left-periphery in his analysis of multiple "edge" constituents. He analyzes four edge constituents in CH: fronting, left-dislocation (=*casus pendens*),[1] extraposition, and right-dislocation. Holmstedt, in agreement with Naudé, explains that the rich left-periphery is due to CP-adjunction. This left-periphery is also consistent in CH embedded constructions as represented in (3):

1. For a critique of the label *casus pendens* and its applicability to CH, see Naudé 1990: 115.

(3) Main clause Left-dislocation



Subordinate clause left-dislocation



(Holmstedt 2014: 124)

Holmstedt demonstrates that CH takes advantage of the recursive nature of CP by allowing many layers of stacking. He also provides an innovative analysis of what he calls extreme topic fronting, which can allow an additional topic above the embedding items *kî* and *'ăšer* in (3) (Holmstedt 2014: 149).

Cowper and Decaen (2017) provide a different analysis of the CH left-periphery. One of the most fundamental differences between their approach and that of Naudé and Holmstedt is their denial of the recursivity of heads in CP as well as their insistence that there can only be one TopP (Cowper and DeCaen 2017: 1). A full discussion of the contents of the Left-Periphery in CH is outside the scope of the present book, so the arguments of Cowper and DeCaen over against that of Naudé and Holmstedt will not be pursued further. Cowper and DeCaen argue for a designated head in the Left-Periphery for the existential particles *yēš and 'ên*, however, which I will discuss in Chapter 6.

Examples are abundant for copular sentences, both verbless and those with *hyh*, being moved to fill topic or focus position. Buth (1999) evaluates the pragmatic

marking of verbless clauses demonstrating that they move to fill these positions. Since verbless clauses theoretically only require two (overt) adjacent constituents (subject and complement), movement is underspecified in many cases. Buth provides the example in (4) to show the subject serving as topic in the left-periphery.[2]

(4) Qohelet 1.4
A generation goes and a generation comes…
וְהָאָרֶץ לְעוֹלָם עֹמָדֶת
wə-hā -ʾāreṣ lə-ʿôlām ʿōmāḏeṯ (Buth 1999: 82)
CONJ-ART- earth to-eternity remain.PTCP
but the earth remains forever

The default position of the subject for CH verbless clauses is the initial position.[3] Contextually, the subject in (4) seems like a candidate for a Topic which is reorienting the reader/listener to a new referent. Moving this subject to the Topic position in the left-periphery ends up making no structural difference after phonological spell-out. Another example is provided in (5).

(5) 1 Samuel 17.33
Saul said to David, "You are not able to go against this Philistine to fight with him…
כִּי־נַעַר אַתָּה וְהוּא אִישׁ מִלְחָמָה מִנְּעֻרָיו
kî naʿar ʾattâ wə-hûʾ ʾîš milḥāmâ min - nəʿurāyw
for youth 2MSG CONJ-3MSG man GEN war from- youth.3MSG
for you are a youth, but (he) is a warrior since his youth."

This time there are two verbless clauses: the first with P-S order and the second with S-P. In the first clause, the predicate constituent has been fronted to Focus position. In the second clause the subject has been moved to Topic position to contrast it with the subject of the previous sentence. Example (6) demonstrates movement to FocP in one of the contexts where *hyh* is obligatory.

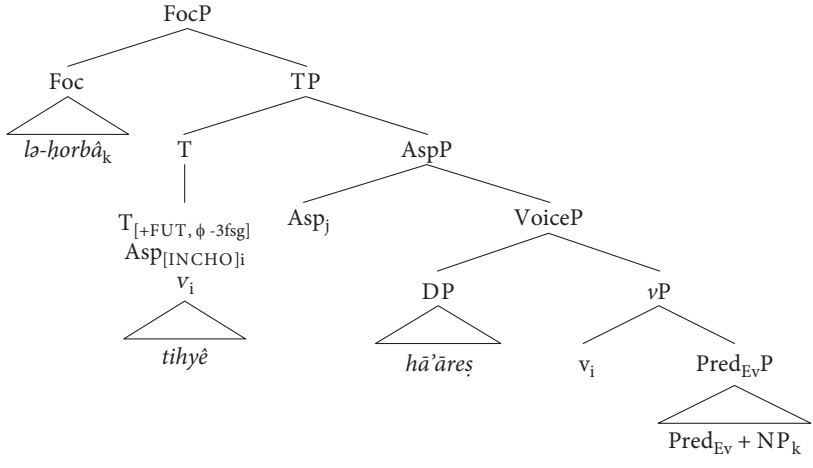
2. Buth never uses the term *left-periphery* to describe the landing site for topic or focus. In fact, he avoids using most of the normative labels for generative syntactic analysis. Even though he classifies his approach as generative-functional, the theoretical language is kept to a minimum. Even without terminological coherence, however, Buth's analysis is largely consistent with the feature-driven movement principles of generative grammar.

3. There has been considerable debate about the default word order in finite verbal sentences in CH (for a representative sample see Moshavi 2010; Holmstedt 2009, 2011, 2016. The default S-P word order for verbless clauses, however, is a consensus view.

(6) Jeremiah 7.34
לְחָרְבָּה תִּהְיֶה הָאָרֶץ
lə-ḥorbâ tihyeh hā-ʾāreṣ
to-waste COP.IPFV.3FS ART-land
[$_{FOC}$A waste,] [$_{TP}$ the land will become _____$_{a\ waste}$]

This example is interesting because overt Pred$_{Ev}$ (the preposition *lamed*) is pied-piped to Spec, FocP along with the focused constituent. The subject remains in Spec, Pred$_{Ev}$ when the verb raises to T as represented in (7).

(7)



Left-dislocation in addition to topicalization is possible in verbless clauses (8). Focusing and topicalization can also co-occur in *hyh* clauses (9).

(8) 2 Samuel 21.2
וְהַגִּבְעֹנִים לֹא מִבְּנֵי יִשְׂרָאֵל הֵמָּה
wə-hag-giḇʿōnîm lōʾ mib-bənê yiśrāʾēl hēmmâ
CONJ-ART- Gibeonites NEG from-sons.GEN Israel 3MPL
[$_{LD}$ Now the Gibeonites,] [$_{TOP}$ not from the Israelites][$_{TP}$ they (were)_____$_{not\ from\ the\ Israelites}$]

(9) Genesis 39.22
וְאֵת כָּל־אֲשֶׁר עֹשִׂים שָׁם הוּא הָיָה עֹשֶׂה
wə-ʾēṯ kol ʾăšer ʿōśîm šām hûʾ hāyâ ʿōśê
CONJ-OBJ all that do.PTCP there 3MSG COP.PFV.3MSG do.PTCP
[$_{FOC}$ Everything that was done there], [$_{TOP}$ he][$_{TP}$ had been the one who did it_____$_{was\ him}$]]]

There is one additional construction which features *hyh* in the left-periphery. Example (10) demonstrates that this verb can occur even higher than an LD constituent.

(10) Numbers 16.7
וְהָיָה הָאִישׁ אֲשֶׁר־יִבְחַר יְהוָה הוּא הַקָּדוֹשׁ
wəhāyâ hā-ʾîš ʾăšer yiḇḥar yhwh hûʾ
CONJ.COP.WQTL.3MSG ART-man who choose.IPFV.3MSG YHWH 3MSG
haq-qāḏôš
ART-holy
[$_{??}$It will be], [$_{LD}$ the one whom YHWH chooses], [$_{TP}$ he (is) the holy one]]]

Hyh in clauses like (11) has been called a "macro-syntactic sign," or "discourse marker."[4]

(11) Genesis 4.14
וְהָיָה כָּל־מֹצְאִי יַהַרְגֵנִי
wəhāyâ ḵol mōṣʾî yaharḡēnî
CONJ.COP.WQTL 3MSG all find.PTCP.MSG.1SG slay.IPFV.3MSG.1SG
It will happen, all who find me will slay me!

The role of this construction according to previous studies is to anchor or update the reference time of the sentence and/or mark discourse boundaries (Hatav 1997, 2018; van der Merwe 1999). In this section I will begin with a description of characteristics of these sentences and then provide an explanation for their semantic/pragmatic function which I develop in Wilson (2019) and Wilson (forthcoming).

The example in (10) demonstrates that the verb *hyh* is in the left-periphery. This is further confirmed by the data which demonstrate that this construction must always occur clause-initially.

(12) Genesis 39.7
וַיְהִי אַחַר הַדְּבָרִים הָאֵלֶּה וַתִּשָּׂא אֵשֶׁת־אֲדֹנָיו אֶת־עֵינֶיהָ אֶל־יוֹסֵף
wayhî ʾaḥar had-dəḇārîm hā-ʾēllê wattiśśāʾ
CONJ.COP.PRET.3MS after ART-things ART-these CONJ lifted.PRET.3FSG
ʾēšeṯ ʾăḏōnâyw ʾeṯ ʿênêhā ʾel yôsēp̄
wife.GEN master.3MSG OBJ eyes.3FSG to Joseph
[It happened], [after these things, the wife of his master lifted her eyes to Joseph.]

4. For previous treatments of this construction see Vanoni 1982; van Hecke 2008, 2013; Harmelink 2011; Isaakson 1998; Ber 2008; van der Merwe 1999; Longacre 2014; Hatav 1997, 2018; Wilson 2019.

(13) Judges 2.19
וְהָיָה בְּמוֹת הַשּׁוֹפֵט יָשֻׁבוּ וְהִשְׁחִיתוּ מֵאֲבוֹתָם
wəhāyâ bə-môṯ haš-šôp̄ēṭ yāšuḇû
CONJ.COP.WQTL.3MSG when-die.INF ART-judge turn.IPFV.3MPL
wə-hišḥîṯû mē-ʾăḇôṯām
CONJ-be.corrupt.WQTL.3PL from- fathers.3MPL
[It would happen] [when the judge would die, they would turn back and be more corrupt than their fathers.]

(14) Deuteronomy 8.19
וְהָיָה אִם־שָׁכֹחַ תִּשְׁכַּח אֶת־יְהוָה אֱלֹהֶיךָ וְהָלַכְתָּ אַחֲרֵי אֱלֹהִים אֲחֵרִים וַעֲבַדְתָּם וְהִשְׁתַּחֲוִיתָ לָהֶם הַעִדֹתִי בָכֶם הַיּוֹם כִּי אָבֹד תֹּאבֵדוּן
wəhāyâ ʾim šāḵōaḥ tiškaḥ ʾeṯ yhwh
CONJ.COP.WQTL.3MSG if forget.INF.ABS forget.IPFV.2MSG OBJ YHWH
ʾĕlōhêḵā wə-hālaḵtā ʾaḥărê ʾĕlōhîm ʾăḥērîm wa-ʿăḇaḏtām
god.2MSG CONJ-go.WQTL.2MSG after gods other CONJ-serve.3MPL
wə-hištaḥăwîṯā lā-hem haʿîḏōṯî ḇā-ḵem hay-yôm kî
CONJ-worship.WQTL.2MSG to-3MPL warn.1SG in-2MPL ART-day that
ʾāḇōḏ tō ʾḇēḏûn
perish.INF.ABS perish.IPFV.2MPL
[It will happen] [If you forget YHWH your God and go after other gods and serve them and worship them, I warn you today that you will surely perish].

Examples (12)–(14) demonstrate that these constructions possess no φ-agreement with any constituents in the matrix sentence. In Example (12) the subject is feminine, yet the clause-initial *hyh* has 3ms inflection. Example (13) also presents 3ms inflection on *hyh* yet the subject is plural. In (14) *hyh* once again has 3ms inflection but the two potential subjects which could supply their agreement features are 1st person (I warn you…) and 2nd person (you will surely perish). This is a clear indication that the 3msg feature set is regarded as default in CH, which is important for the Impoverishment analysis I gave for PRON in Chapter 4. The one consistent feature of these constructions is that *hyh* always mirrors the TAM inflection of the matrix verb. In (12) past temporal reference is present for the clause-initial *hyh* and the matrix verb *wattišā*ʾ. In (13) the habitual imperfective aspect is represented by the prefixed main verb and then mirrored with the *weqatal* form of *hyh*.[5] In (14) future tense is reflected by both verbs. These features demonstrate a link between *hyh* and the matrix verb of the sentence.

5. One anonymous reviewer points out that another interpretation of the *weqatal* form, following Cook (2012), is that it is a habitual (irrealis) perfective. Under this analysis, what is mirrored from the matrix sentence in this construction is not the aspect but the irrealis habitual nuance. This reading is certainly possible.

It is necessary to determine where in the left-periphery *hyh* is located. Example (10) is repeated in (15) representing that *hyh* can merge higher even than a left dislocated constituent.

(15) Numbers 16.7
וְהָיָה הָאִישׁ אֲשֶׁר־יִבְחַר יְהוָה הוּא הַקָּדוֹשׁ
wəhāyâ hā-ʾîš ʾăšer yiḇḥar yhwh hûʾ
CONJ.COP.WQTL.3MSG ART-man who choose.IPFV.3MSG YHWH 3MSG
haq-qāḏôš
ART-holy
[It will be], [$_{LD}$ the one whom YHWH chooses], [$_{TP}$ he (is) the holy one]]]

Example (16) also demonstrates the impressive distance that can be tolerated between this verb and its linked verb. The linked verbs are the first and last constituents in the entire sentence.

(16) Deuteronomy 8.19
וְהָיָה אִם־שָׁכֹחַ תִּשְׁכַּח אֶת־יְהוָה אֱלֹהֶיךָ וְהָלַכְתָּ אַחֲרֵי אֱלֹהִים אֲחֵרִים וַעֲבַדְתָּם וְהִשְׁתַּחֲוִיתָ לָהֶם הַעִדֹתִי בָכֶם הַיּוֹם כִּי אָבֹד תֹּאבֵדוּן
wəhāyâ ʾim šāḵōaḥ tiškaḥ ʾeṯ yhwh
CONJ.COP.WQTL.3MSG if forget.INF.ABS forget.IPFV.2MSG OBJ YHWH
ʾĕlōhêḵā wə-hālaḵtā ʾaḥărê ʾĕlōhîm ʾăḥērîm wa-ʿăḇaḏtām
god.2MSG CONJ-go.WQTL.2MSG after gods other CONJ-serve.3MPL
wə-hištaḥăwîṯā lā-hem haʿiḏōṯî ḇā-ḵem hay-yôm kî
CONJ-worship.WQTL.2MSG to-3MPL warn.1SG in-2MPL ART-day that
ʾāḇōḏ tōʾḇēḏûn
perish.INF.ABS perish.IPFV.2MPL
[It will happen] [If you forget YHWH your God and go after other gods and serve them and worship them, I warn you today that you will surely perish].

Though not explicitly referring to this construction, Holmstedt has labelled constructions like these extreme topic fronting (Holmstedt 2014: 144ff). Examples (12)–(14) above demonstrate that these constructions precede Left-Dislocation constructions, Topics, and the protasis of a conditional sentence in the Left-Periphery. In order to truly know where *hyh* is located in the left-periphery, it is important to understand its semantic and pragmatic role in CH. After providing an explanation of the semantic/pragmatic features associated with this construction, we can address again the syntactic question.

In previous publications (Wilson 2019, forthcoming), I associated this construction with the function of setting up a thetic judgment. Thetic judgments are contrasted with categorical judgments which were first distinguished in the late 19th and early 20th century philosophical tradition of Fichte (Seidel 1993),

Brentano (1870–1877), and Marty (1908). Fichte was reacting to Kant's proposal that all judgments require a minimum of two concepts. Fichte argued that there exist certain judgments that are simply asserted or posited. The Greek word *tithēmi* "to put, pose" is the origin of the term thetic. The Japanese linguist Kuroda brought the philosophical discussion of the thetic/categorical distinction into the realm of modern linguistics by stating that the particles *wa* and *ga* in Japanese correspond to thetic and categorical sentences (Kuroda 1972).

(17) *Inu ga hasitte iru*
A/the dog is running

(18) *Inu wa hasitte iru*
A/the dog is running

Example (17) is an example of a thetic sentence and is the simple recognition of an event while Example (18) is a categorical sentence which first selects a topic and predicates an activity of that topic. The most thorough, cross-linguistic study of theticity is provided by Sasse (1987, 1996). Macías gives common examples of thetic sentences in English in the following subtypes.

(19) a. Existentials (e.g. There are three Tasmanian devils in the zoo).
b. Weather statements (e.g. It is snowing).
c. Presentatives (e.g. HERE's John).
d. Physical sensation (e.g. My HEAD hurts).
e. Hot news statements (e.g. The POPE died). (Macías 2016: 5)

In Wilson (2017, 2019), I found a correlation between the isolated *hyh* in the left-periphery and the form and function of thetic sentences cross-linguistically. In Wilson (forthcoming), however, it seemed more appropriate to describe what is happening with these constructions (and with the overall category of thetics generally) with the concept of common ground update. In the remainder of this chapter I will review the argument of Wilson (forthcoming) and connect it to the general discussion of this volume.

The notion of common ground (CG) was introduced by Stalnaker (1978) who described it simply as the common or mutual knowledge between participants in a conversation. This mutual knowledge allows interlocutors to take certain things for granted in a conversation and to build the dialogue off of these shared assumptions. Roberts (2012) further articulates that the CG is a superset of the common ground for any and all previous moves in a discourse. Each move in a dialogue updates the common ground with *at-issue* content and sometimes *not-at-issue* content. *At-issue* content has sometimes been referred to as the felicitous answer to the *Question-Under-Discussion* (QUD) (Roberts 2012: 15–16). Roberts illustrates how

the QUD works with prosodic focus in English. She states that prosodic focus in English reveals the type of QUD and gives the following example

(20) a. Who did Mary invite?
b. Mary invited [nobody]$_F$
c. *Mary [invited]$_F$ nobody.
d. *[Mary]$_F$ invited nobody. (Roberts 2012: 34)

In (20), only (20b) is felicitous with the QUD. The QUD is present in all dialogue, not just actual questions. The QUD simply enables the addressee to discern the strategy of the speaker and respond with a felicitous move. Roberts also states that often in a discourse there is information that an interlocutor introduces which has not yet been accepted into the common ground, but when no interlocutors object to this presupposition, it is simply embraced as if it was part of the CG all along (Roberts 2012: 8). One example of this comes from English *happen*-clefts, repeated from Wilson (forthcoming). Consider Example (21) from the Corpus of Contemporary American English (Davies 2008).

(21) Q: Whenever we've talked, I always ask if you received the call from Mick that it was time to hit the road again. So when did this call come?
A: *What happened was* that, starting in late 2012, the band celebrated its 50th anniversary, and we started late that year and did a couple of shows at the O2 Arena in London and did three shows in the Northeast…
(Davies 2008, accessed 11–05–19)

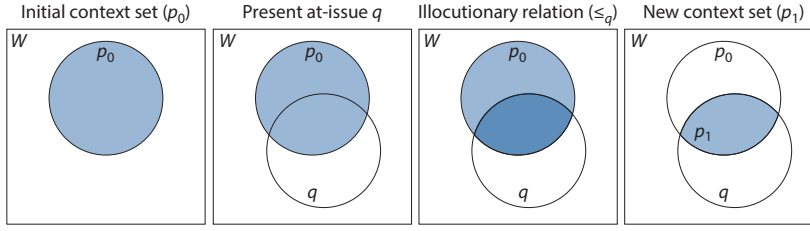
The *happen*-cleft italicized in (21) is a signal to the addressee by the speaker that the information to follow is relevant to the QUD and should be accepted into the CG even though it is not a direct answer to the QUD. It is a request that the interlocutors accept the information that follows as a felicitous move in the discourse. The *happen*-cleft is a signal for this type of update. (22) demonstrates that a direct answer to the QUD cannot follow a *happen*-cleft.

(22) Q: So when did this call come?…
A: What happened was, *at 5 pm.

The isolated *hyh* in the left-periphery functions in this manner. It is a signal that the following information should be accepted into the CG by the reader so that further moves may be built off of it, in a manner similar to the English *happen*-cleft.

The work by Murray (2009, 2010, 2014) is also relevant to understanding what is happening in these constructions. According to Murray, every sentence can contribute multiple types of update to a discourse. The important types for our purposes have to do with the *at-issue* and *not-at-issue* types. Murray provides an illustration in (23) for how *at-issue* update works.

(23) Floyd won the race



(Murray 2014: 17)

In (23), the whole proposition is illustrated through 4 squares. The first square illustrates the initial common ground which is represented by the context set p_0. The context set is represented by the shading in each stage of update. The second square introduces a discourse referent (Floyd won the race) as the *at-issue* content (q). The third square is the illocutionary relation which is where a structural update is introduced to propose that q is true to the common ground. The fourth square shows the updated and reduced context set p_1 once q has been added (Murray 2014: 17–18).

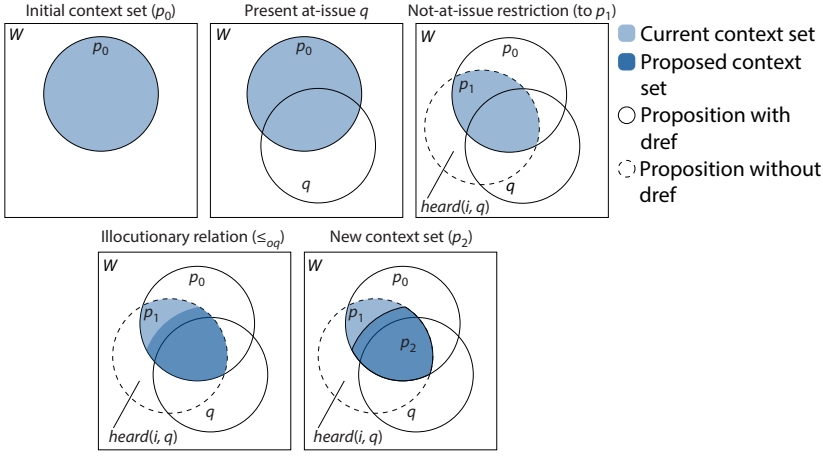
In sentences where *not-at-issue* content is being added, the picture is more complicated. Murray uses English "slifting" constructions which are used for evidentiality to introduce how *not-at-issue* content works. In the sentence (24a), there are two propositions. The first is directly challengeable since it is the *at-issue* content while the second is not directly challengeable.

(24) a. Kathy sang, I hear.
b. No, she didn't (sing). She danced.
b′. # No, you didn't (hear that).

(Murray 2014: 2:4)

The second proposition is the *not-at-issue* content which can be challenged in other more indirect methods, e.g. *Hey wait, you didn't hear that!* The distinction between *at-issue* and *not-at-issue* content is the difference between content which is directly added to the CG (*not-at-issue*) and content which is proposed to be added (*at-issue*). Murray provides a representation of an English slifting construction in (25) in order to illustrate how direct update of *not-at-issue* content works.

(25) Floyd won the race, I hear.



(Murray 2014: 19)

As the key indicates, the discourse referent (*at-issue* content) is the circle with the solid line. The *not-at-issue* content of the evidential clause directly restricts the initial context set to worlds where *heard*(i,q) is true. In the fourth square the illocutionary relation indicates that *q* is possible ($\leq_{\Diamond q}$). The fifth square indicates that *q* might or might not be true which is the *at-issue* content as it has been restricted by the evidential.

The reason why this introduction of *not-at-issue* content is so important for our discussion of the isolated *hyh* in the left-periphery is because most of the examples of this construction contain *not-at-issue* content. Example (26) will illustrate the most common type.

(26) Genesis 39.7

וַיְהִי אַחַר הַדְּבָרִים הָאֵלֶּה וַתִּשָּׂא אֵשֶׁת־אֲדֹנָיו אֶת־עֵינֶיהָ אֶל־יוֹסֵף

wayhî *ʾaḥar* *had-dəḇārîm hā -ʾēllê* *wat-tiśśāʾ*

CONJ.COP.PRET.3MS after ART -things ART- these CONJ-lift.PRET.3.F.SG

ʾĕšeṯ *ʾăḏōnâyw* *ʾeṯ* *ʿênêhā* *ʾel* *yôsēp̄*

wife.GEN master.3MS DOM eyes.3.F.SG to Joseph

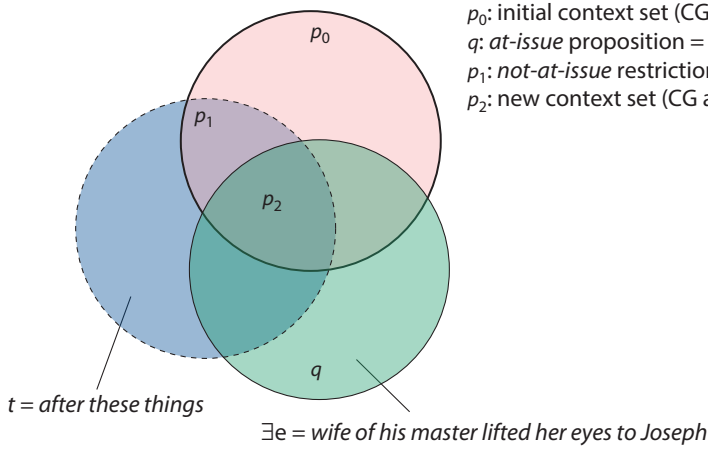
It happened, after these things, the wife of his master lifted her eyes to Joseph.

After the isolated *hyh* in Example (26) there is an adverbial temporal clause. In the Hebrew Bible, 634 out of 748 examples (85%) of isolated *hyh* constructions have a temporal adverbial directly following *hyh*, as in Example (26). This adverbial presents another proposition which is not directly challengeable, like English slifting evidentials.

(27) a. After these things, the wife of his master lifted her eyes to Joseph.
b. No, she didn't.
b′ #No, it wasn't (after these things)

One would have to use some other means in order to challenge the proposition in the adverbial such as *Hey wait, wasn't it before?*. I reproduce a model originally in Wilson (forthcoming) to illustrate the types of update in (28).

(28)



The isolated *hyh* in CH, then, is a signal that new information is being added to the CG which should be accepted by the reader so that further moves may be built off of it. The main proposition is the *at-issue* content which may be restricted by *not-at-issue* content introduced by a temporal adverbial (or other types discussed in Wilson (forthcoming)).

While the pragmatics of this construction seem to be clear, the syntax is more difficult. There are a few features of this construction which make it difficult to place syntactically. The easiest syntactic fact is that this construction always places *hyh* in the left-most position in a clause. It precedes topic, focus, and left-dislocation. It also mirrors the TAM of the matrix verb, but not the φ-features. These facts are certain. Whatever head the isolated *hyh* appears in, it seems to behave exactly like an auxiliary behaves in the sense of Bjorkman (2011) which I reviewed in Chapter 4. In the syntax there are inflectional features which are specified on this specific node in the left-periphery which are derived from T below it. The auxiliary copula *hyh* is inserted as the Vocabulary Item which realizes these features. Agree does not operate on this terminal node, however, which results in the default 3msg φ-features surfacing in every case. A more detailed study of the left-periphery in CH and in the relationship of the syntax/pragmatics interfaces is necessary before determining exactly which head the isolated *hyh* appears in.

CHAPTER 6

Existentials in Classical Hebrew

An existential construction may be defined as "a specialized or non-canonical construction which expresses a proposition about the existence or the presence of someone or something" (McNally 2011: 1829).[1] Example (1) demonstrates an existential sentence in English.

(1) There is a mug on the counter.

Creissels compares existentials to locatives and says

> What distinguishes existential clauses from plain locational clauses is a different perspectivization of figure-ground relationships whose most obvious manifestation is that, contrary to plain locational clauses, existential clauses are not adequate answers to questions about the location of an entity, but can be used to identify an entity present at a certain location. (Creissels 2013: 2)

Example (1) is an existential sentence because it has a specialised structure which does not reflect the canonical Topic-Comment or Subject-Predicate form. *There* is classified as an expletive element which is non-referential. The NP following the verb is called the pivot. The PP following the pivot is known as the coda and is optional in English existential sentences, such as (2).

(2) There is fresh coffee.

Cross-linguistically, existentials utilize some combination of the following constituents:

> (Expletive) (proform) (copula) pivot (coda) (Bentley et al. 2013).

From a purely formal viewpoint, the only obligatory component of an existential construction is the pivot (Francez 2009; Cruschina 2012; Bentley et al. 2013). Other elements are either permitted or required to exist in these constructions depending on the individual language. Certain languages, such as English (*there*) and French (*Il*) require an expletive while others do not. Often existentials will contain a verb which has been classified as a copula in the language, even a specialized copula for existentials. Some languages use a form of the verb *have* or *give* like the German *geben* in (3).

1. See Creissels (2013) for a detailed explanation of why the philosophical notion of existence/presence is inadequate and that an alternate figure-gound relationship is preferred.

(3) *Es gab ein Kind in dem Garten* (German)
It gave a child in the garden
'There was a child in the garden' (McNally 2011: 1831)

Reflecting different combinations of the elements above, (4) demonstrates the variability of existentials in other languages.

(4) a. There are some books on the table (English)
PROFORM COPULA PIVOT CODA
b. Ci sono dei libri sul tavolo (Italian)
PROFORM be.3PL some books on the table
c. Il y a des livres sur la table (French)
EXPLETIVE PROFORM have.3SG some books on the table
d. Hay unos libros sobre la mesa (Spanish)
have.3SG-PROFORM some books on the table
'There are some books on the table' (Bentley et al. 2013: 1)

6.1 The existential/predicational distinction

In the literature dedicated to analysing existentials, the predicative versus existential distinction has been compared to the distinction between categorical and thetic statements (Partee & Borschev 2002). Partee and Borschev argue that this distinction is necessary but the critical distinction between these types of sentences is not in the Theme-Rheme structure but in the notion of Perspectival Structure. This notion compares existentials with locative constructions, distinguishing between them based on a Perspectival Centre. In a locative sentence, the THING is chosen as the perspectival centre while in an existential sentence, the LOCATION is chosen as the perspectival centre. They provide a helpful analogy to explain the difference:

> An analogy may be made with a video camera and "what the camera is tracking". A predicational sentence keeps the camera fixed on the protagonist as she moves around (THING as Center); and ES [Existential Sentence] is analogous to the way a security camera is fixed on a scene and records whatever is in that location (LOC as Center). (Partee & Borschev 2002)

The difference is represented in (5), with the underlined element functioning as the Perspectival Centre.

(5) a. BE(THING, LOC) Existential "There is a mug on the table"
b. BE(THING, LOC) Locative "The mug is on the table"

Applying the video camera metaphor to these examples, (5a) provides the perspective from a stationary security camera which regards the table as the object of interest and records what is on it, while (5b) assumes the mug as the object of interest and follows it to the table.

Partee and Borschev explain that Perspective Structure is not the same as information structure, though they share some similarities. Perspective Structure is also not directly syntactic, though it is regularly reflected in the syntax. Partee and Borchev say, "Perspective Structure is basically a structuring at the model-theoretic level, like the telic/atelic distinction, or the distinction between Agents and Experiencers" (Partee & Borschev 2002: 158). One can choose whether to say that A is above B or B is below A. This is a diathetic alternation. The analysis above does not depend on the presence of a locative coda, however. For examples like (2) (There is fresh coffee), the location is presupposed in the universe of discourse and the perceptual space of the subject of consciousness (Jung 2011).

The primary focus of this chapter is comparing the syntax and semantics of CH existentials–including predicative possessives –to the analyses of CH copular sentences which have already been analyzed. I adopt the analysis of Francez (2007, 2009) and Myler (2016, 2018) in my description of the syntax and semantics of these constructions.

In Section 6.2, I provide an overview of the semantic distinctions of existential and copular sentences made by Francez (2009). In Section 6.3, I describe Myler's approach to complex copular systems and how existentials fit in. In Section 6.4, I list the data of CH existential constructions and, following Myler and Francez, describe the syntax of existentials which use the CH verb *hyh*. I also describe the syntax of existentials which use the particles *yēš* and *ʾên*, In 6.5, I incorporate a diachronic analysis following Naudé and Miller-Naudé (2016) and Naudé, Miller-Naudé and Wilson (2019) to explain cyclical change in CH existentials. In Section 6.6, I give a brief account of predicative possessives which utilize the same formal strategies as existentials.

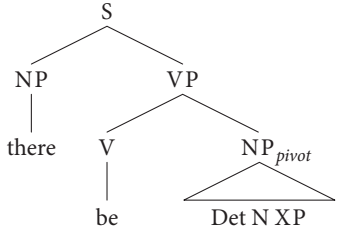
6.2 The semantics of existential sentences

The following example demonstrates the ambiguity between an existential interpretation and its copular counterpart.

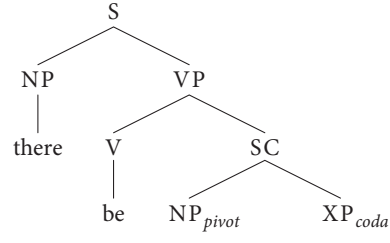
(6) Genesis 41.54
וַיְהִי רָעָב בְּכָל־הָאֲרָצוֹת
wayhî *rāʿāḇ* *bə-ḵol hā-ʾărāṣôṯ*
CONJ.COP.PRET.3MSG famine in-all ART-lands
There was a famine in all the lands
or
A famine was in all the lands

The difference between these two options centers upon whether the post-copular NP should be interpreted as the pivot of an existential or as the subject of a PP predicate. The semantics of these two interpretations appear to be identical, but the analysis of existentials by Francez (2007, 2009) has demonstrated that in fact they are different. Francez traces the difference back to the debate about how to classify the individual parts of the existential–chiefly the pivot and the coda. The pivot is the NP which follows the copula in an existential sentence (e.g. *famine* in (6)) and the coda is the PP (*in all the lands* in (6)). Most analyses of existentials have argued that pivots should be understood as arguments of some predicate and that codas should be interpreted as predicates. Francez lists the structures in (7i-v) to demonstrate the current options for the argument structure in existentials.

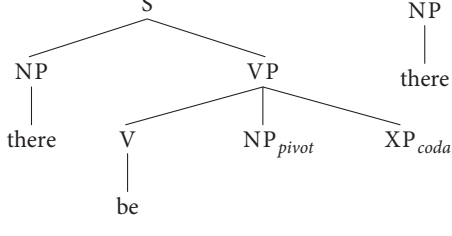
(7) i. **NP-analysis: no codas**. (Barwise and Cooper 1981)



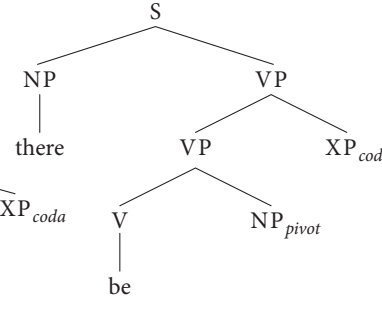
ii. **Small clause structure: pivotes as subjects of codas**. (Stowell 1978; Chomsky 1981; Safir 1982 inter alia)



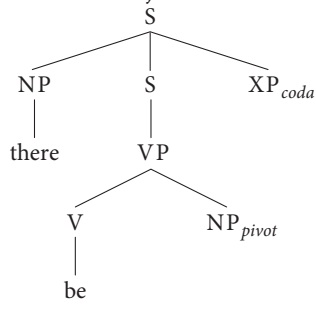
iii. **Pivot and coda co-arguments of be**. (Keenan 1987; Pollard and Sag 1994)



iv. **Codas as VP-adjuncts**. (McNally 1992)



v. **Codas as S-adjuncts**.



(Francez 2009: 4)

Francez argues against these analyses. Pivots, he argues, are not arguments, but main predicates. He states that pivots should be treated as second-order predicates expressing properties of sets, which are known as Generalised Quantifiers (GQ) in formal semantics (Francez 2009: 3). He defines this second order property in (8) (his (11)).

(8) GQs as predicates:
An NP of form [Det N] denotes a Property $P_{<<e,t>,t>}$ of sets such that for any set P, P$\in$ *P* iff P contains *d* elements of ⟦**N**⟧, where *d* is a cardinality, an element in a set of cardinalities or a proportion determined by ⟦**Det**⟧. (Francez 2009: 8).

He provides an example of how a GQ analysis of the pivot fits in an existential sentence.

(9) $\llbracket$***there be NP***$\rrbracket$= =⟦**NP**⟧ $\lambda P_{<\tau,t>}[Q_{<<\tau,t>,<<\tau,t>,\tau>>}(N_{<\tau,t>}, P)]$.

(10) $\llbracket$***there are three flowers***$\rrbracket$= $\lambda P_{<e,t>}[three_{<<e,t>,<<e,t>,t>>}(\lambda x[flower(x)],P)]$

The meaning of BE is given in (9) where τ is any simple type, Q is a relation between sets which is determined by the determiner of the pivot and N is a set determined by the noun in the pivot (Francez 2009: 9). In (10) the relation "three" holds between two sets P,Q if and only if the cardinality of their intersection is three.

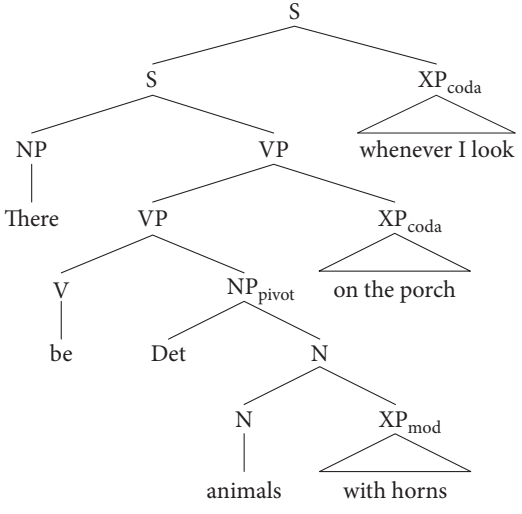
The meaning of BE is applied to what Francez calls a *contextual domain* C through a process he calls *contextualization*. Example (11) is a contextualised version of (10).

(11) $\llbracket$***there are three flowers***$\rrbracket_{contextualised}$= $\lambda P_{<e,t>}[three(\lambda x[flower(x)],P)](C)$ = three(λx[flowers(x)], *C*).

According to Francez, then, pivots are context-sensitive predicates (Francez 2009: 9). The single argument of a pivot must be determined contextually by inference or by explicit contextual modifiers.

Francez classifies codas as sentential modifiers operating on bare existentials (i.e. having no coda) rather than as predicates taking the pivot as a subject (Francez 2009: 3). Existential pivots can also have internal modifiers which are not codas. An example of an existential with two codas and an internal modifier is given and represented syntactically in (12).

(12) There are animals with horns on the porch whenever I look



(adapted from Francez 2009: 6).

In (12), the internal modifier of the pivot *animals* is *with horns*. This PP is not a coda because it is not modifying the contextual domain of the existential predication, but only the NP. In contrast, the two additional PPs *on the porch* and *whenever I look* do modify the primary predication and are therefore codas. Francez makes several important points to demonstrate that codas should interpreted as modifiers and not as predicates. Instead, codas pattern along with frame adverbials. One of his main arguments against viewing codas as predicates has to do with the alternation of existentials and their copular counterparts. If codas are predicates, then they should be truth-conditionally equivalent with their copular counterparts, a situation which is not supported by the data. He demonstrates that not every sentence allows an alternation between existential and copular sentence, as in (13) and (14).

(13) There is room in the car
*Room is in the car

(14) There are penalty kicks in soccer
*Penalty kicks are in soccer (Francez 2009: 35)

In sentences where alternation is possible there is still a different interpretation as in part-whole or *constitution* readings in (15).

(15) a. There is a/no prime minister in the U.S.
b. A/no prime minister is in the U.S. (Francez 2009: 35)

The sentence in (15a) has a reading which indicates that the country that is called the U.S. does or does not have a prime minister. The sentence in (15b) lacks this reading and only asserts the location of a prime minister (from any country) as being in the U.S. Since both the readings in (15) are made of the same material, the difference in meaning must be from their configuration or from lexical ambiguity. Francez suggests that the preposition "in" in (15a) must be a sentential modifier which has a superset of meanings which are not available to it as a predicate. As a predicate, "in" in (15b) is restricted to mere location (Francez 2009: 35). This distinction also provides a natural way of explaining how existentials interact differently from copular sentences with adverbs of quantification, as in (16).

(16) a. There is usually a zoo keeper in a zoo.
$\text{USUALLY}_x[\text{zoo}(x)][\text{a}(\lambda y[\text{zoo-keeper}(y)],<_x])]$[2]
b. A zoo keeper is usually in a zoo.

The sentence in (16a) means that most zoos have a zoo-keeper. The adverbial quantifier scopes over the pivot, but does not scope over the subject NP in (16b) which merely describes the typical location of a zoo-keeper.

Francez also demonstrates that there is semantic distinction with free-relative codas/predicates. Consider Example (17).

(17) a. There is a toilet where we went camping ≠
b. A toilet is where we went camping (Francez 2009: 40)

The sentence in (17a) clearly demonstrates that the existential coda is distinct from the predicative free relative. This is because the coda is a sentential modifier and not a predicate as PPs are in true copular sentences.

One final context where Francez demonstrates a distinction is in the durational vs. punctual interpretations of duration PPs, as in (18).

(18) a. There were no contracts for more than a year
b. No contracts were for more than a year (Francez 2009: 44)

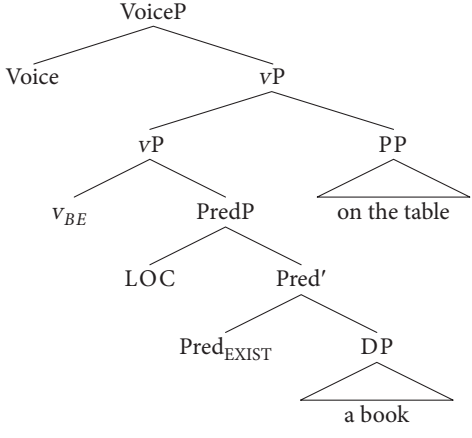
Since existential codas are to be understood as sentential modifiers and pivots are to be understood as predicates, the next important question is to see this worked out in the syntax, which is the topic for Section 6.3.

2. The notation $<_x$ should be interpreted with the constitutive analysis "part-of x".

6.3 The syntax of existential sentences

Myler (2016, 2018), in agreement with Francez, has worked out a syntactic analysis of existentials and predicative possession. He agrees that the semantic denotation of the pivot is a simple property and the coda is optionally included as a modifier to specify the content of a locative element, the coda (Myler 2017: 6). Following Irwin (2012) he assumes that another variant of the functional head Pred, i.e. $\text{Pred}_{\text{EXIST}}$ is selected by the pivot and asserts that the pivot is instantiated at a particular location: LOC. A syntactic representation of an English existential is provided in (19).

(19) There is a book on the table

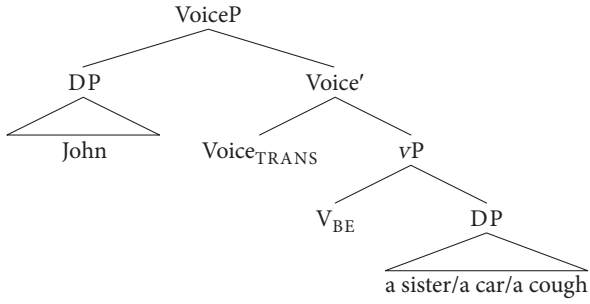


(Myler 2017: 6)[3]

A major innovation in the work of Myler is his analysis of HAVE-sentences. He states that the English verb *have* and verbs which correspond to this verb in other languages are a 'transitive' allomorph of BE (Myler 2016: 10, 2017 :4). This means that the Voice head has a specifier and bears a φ probe which licenses a DP. This is indicated by the head $\text{Voice}_{\text{TRANS}}$ in (20).

3. Myler takes no position on the status of the expletive 'there' in his analysis. He mentions that it could be inserted into spec-VoiceP or (more likely) it could be the overt realization of LOC which is identical to the analysis of Williams (1994) and Hazout (2004).

(20)



(Myler 2016: 5)

The context conditions for Vocabulary Insertion in English possession constructions compared to copular constructions is (21).

(21) English Possessives: $v_{BE} \leftrightarrow$ /have// Voice$_{TRANS}$_____
English Predicatives: $_{VBE} \leftrightarrow$ /be/

More will be said about predicative possession in Section 6.6.

The data from French and Spanish will illustrate how the Vocabulary Insertion works for existentials, possessives and copular sentences. Myler provides the following examples from French (Myler 2017: 8).

(22) *Jean a {deux sœurs/une voiture rouge/de la toux}*
John has two sisters/a car red/of the cough
'John has two sisters/a red car/ a cough.'

(23) *Jean est content*
John is happy
'John is happy'

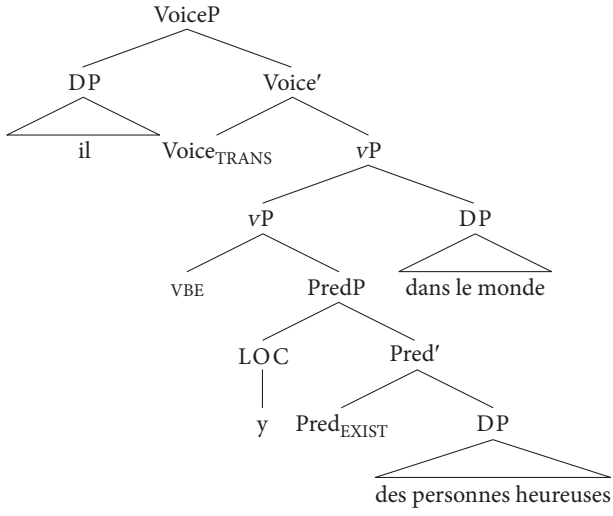
(24) *Il y a des personnes heueuses dans le monde*
it there has of.the people happy in the world
'There are happy people in the world.

Example (24) demonstrates that in French, existentials are formed with an expletive *Il* and the HAVE verb *avoir*. Myler provides the context conditions for the complex copula system in French.

(25) French Possessives: $_{VBE} \leftrightarrow$/*avoir* (have)// Voice$_{TRANS}$_____
French Predicatives: $_{VBE} \leftrightarrow$ /*être* (be)/
French Existentials: $_{VBE} \leftrightarrow$ /*avoir* (have)// Voice$_{TRANS}$_____Pred$_{EXIST}$

Myler proposes that the expletive *Il* is in the Specifier of VoiceP and that *y* is a manifestation of LOC as in (26).

(26)



(Myler 2017: 9)

French is unique among languages in spelling out an overt expletive in both spec-VoiceP and LOC. Turning to Spanish, the situation is even more complex. There is a clear HAVE-verb *tener* for predicative possession (27), but additionally there is an allomorph *haber* used in existential sentences such as (28).

(27) *Juan tiene {dos hermanas/un carro rojo/tos}.*
Juan has two sisters a car red cough
'Juan has two sisters/a red car/a cough.'

(28) *Hay personas felices en el mundo* (Myler 2017: 9)
EXIST people happy in the world
'There are happy people in the world.'

In Chapter 2 it was already mentioned that the two Spanish copulas *ser* and *estar* correspond to two varieties of Pred: Pred$_{INDIV}$ for *ser* and Pred$_{STAGE}$ for *estar*. For Spanish, then, the context conditions for the complex copula system of Spanish are listed in (29).

(29) Spanish Possessives: $_{VBE}$ ↔ /*tener* (have)// Voice$_{TRANS}$____
Spanish Predicatives: $_{VBE}$ ↔ /*ser* (be)/____Pred$_{INDIV}$
$_{VBE}$ ↔ /*ser*(be)/____Pred$_{INDIV}$
Spanish Existentials: $_{VBE}$ ↔ /*haber* (have)// Voice$_{TRANS}$____Pred$_{EXIST}$
(Myler 2017: 10).

The preceding analysis of the semantics of existential propositions of Francez and the syntactic presentation of Myler provide the background with which to evaluate CH existentials and predicative possessives.

6.4 The shape of existentials in Classical Hebrew

Sentences which use the CH verb *hyh* in an existential construction are not immediately apparent in all cases. Example (30) demonstrates the ambiguity.

(30) Genesis 41.54
וַיְהִי רָעָב בְּכָל־הָאֲרָצוֹת
wayhî *rāʿāḇ* *bə-ḵol hā-ʾărāṣôṯ*
CONJ.COP.PRET.3MSG famine in-all ART-lands
There was a famine in all the lands
or
A famine was in all the lands

Examples such as (31) or, more famously (32), provide unambiguous examples of existentials using the verb *hyh*.

(31) Exodus 8.11
וַיַּרְא פַּרְעֹה כִּי הָיְתָה הָרְוָחָה וְהַכְבֵּד אֶת־לִבּוֹ
way-yarʾ *parʿō* *kî* *hāyṯâ* *hārwāḥâ*
CONJ-see.PRET.3MSG Pharaoh that COP.PFV.3FSG respite
wə-haḵbēḏ *ʾeṯ* *libbô*
CONJ-make.hard.WQTL.3MSG OBJ heart.3MSG
When Pharaoh saw that there was respite he hardened his heart.

(32) Genesis 1.5
וַיְהִי־עֶרֶב וַיְהִי־בֹקֶר
wayhî *ʿereḇ* *wayhî* *ḇōqer*
CONJ.COP.PRET.3MSG evening CONJ.COP.PRET.3MSG morning
There was evening and there was morning.

Existentials and their copular counterparts are similar but distinct in their syntactic composition and must also be distinguished based on the semantics proposed by Francez in Section 6.2. The existential clause in example (32), may be analyzed as follows. Each pivot NP, *ʿereḇ* (evening) and *ḇōqer* (morning), is the predicate which is a property of sets which is applied to the context as in (33) and (34).

(33) $\lambda P_{<e,t>}[a(\lambda x[\text{evening}(x)], P)](C) = a(\lambda x[\text{evening}(x)], C)$.

(34) $\lambda P_{<e,t>}[a(\lambda x[\text{morning}(x)], P)](C) = a(\lambda x[\text{morning}(x)], C)$.

The indefinite quantifier *a* is null but implied in CH and C (context) is the implicit argument – the *contextual domain*–of the pivot. Francez says, "In a sense then, contextual domains are the semantic subjects of existentials" (Francez 2007: 71).

This is similar to the "stage topic" in Erteschik-Shir (1997, 2007). Francez gives the Example (35) to illustrate the concept of a contextual domain or context set.

(35) Coli endotoxin caused death in all animals within 16 to 29 hours
(Francez 2007: 71).

This sentence is not understood to mean that every animal in the world is now extinct. Rather, in the interpretation implies a contextually supplied set which restricts the quantified NP. Something like a covert PP *in the experiment* is understood from the contextual domain (Francez 2007: 71).

Applied to Examples (33) and (34), then, the contextual domain which functions as the sole argument of the pivot *evening/morning* is something like *for the first time* and/or *in creation*. The contextual domain for Example (31) would be something like a(λx[respite(x)], *for the Israelites*). With this basic understanding of unambiguous CH existentials using *hyh*, we can move on to the more ambiguous examples.

The examples given above do not have a coda. Francez argues that the role of codas can be seen simply as setting the value of the contextual domain that is the implicit argument of the pivot (Francez 2007: 74). Codas do not play a role in the main predication; rather, they are contextual modifiers similar to frame adverbials (Francez 2009: 9).

The addition of a coda in Examples (36)–(38) creates some ambiguity concerning the proper interpretation of these sentences. The existential interpretation is followed by a copular counterpart (which has questionable grammaticality) in each example.

(36) Judges 17.1
וַיְהִי־אִישׁ מֵהַר־אֶפְרַיִם וּשְׁמוֹ מִיכָיְהוּ
wayhî *ʾîš* *mē-har* *ʾepārayim* *û- šəmô*
CONJ.COP.PRET.3MSG man from-hill.GEN Ephraim CONJ-name.3MSG
mîḵāyəhû
Micah
There was a man from the hill country of Ephraim and his name was Micah.
or
A man was from the hill country of Ephraim and his name was Micah.

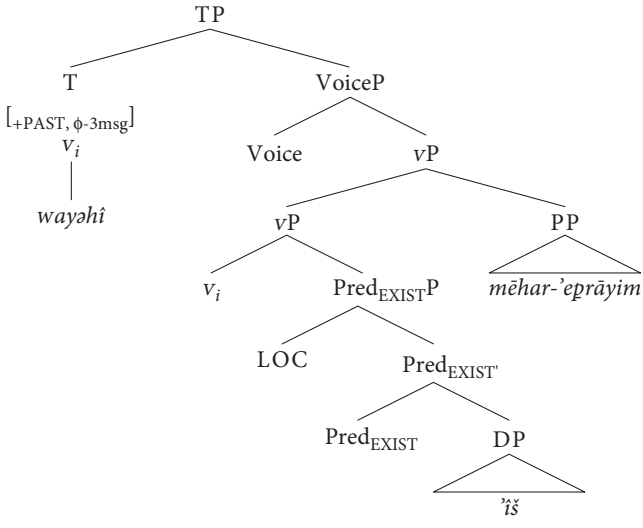
(37) Genesis 13.7
וַיְהִי־רִיב בֵּין רֹעֵי מִקְנֵה־אַבְרָם וּבֵין רֹעֵי מִקְנֵה־לוֹט
wayhî *rîḇ* *bên* *rōʿê* *miqnê* *aḇrām*
CONJ.COP.PRET.3MSG strife between shepherds.gen livestock.gen Abram
û-ḇên *rōʿê* *miqnê* *lôṭ*
CONJ- between shepherds.GEN livestock.GEN Lot

There was strife between the herdsmen of Abram and the herdsmen of Lot.
or
Strife was between the herdsmen of Abram and the herdsmen of Lot.

(38) Isaiah 11.16
וְהָיְתָה מְסִלָּה לִשְׁאָר עַמּוֹ אֲשֶׁר יִשָּׁאֵר מֵאַשּׁוּר
wəhāyṯâ məsillâ li-šʾār ʿammô ʾăšer
CONJ.COP.WQTL.3FSG highway to-remnant.GEN people.3MSG who
yîššāʾēr mē-ʾaššûr
remain.IPFV.3MSG from-Assyria
There will be a highway from Assyria for the remnant of his people who remain,
or
A highway will be from Assyria for the remnant of his people who remain

The first argument in favor of interpreting these as existentials is the presence of *hyh*. Based on the discussion in Chapter 4, these examples do not have any discernible inflectional features which would trigger the presence of *hyh* in past temporal context. It was demonstrated that past tense in CH is not specified for inflectional features, though features on an Asp head were demonstrated. These also cannot be read as past perfective. Second, the work by Francez (2009) demonstrated that the two interpretations provided for each example are not semantically equivalent. The important question to answer for each of the Examples (36)–(38) is what type of predication is taking place. Example (36), for instance, is introducing a character into the narrative for the first time and specifying his name. If this is an instance of copular predication, then the only predication taking place is the specification of previously unmentioned referent (*a man*) as being from a particular location (*from the hill country of Ephraim*). If, by contrast, this is an existential construction, the pivot (and therefore the predicate) is *a man* and the "subject" is the contextual domain which is valued by the PP *from the hill country of Ephraim*. The main predication in this interpretation is that the pivot NP is asserted into the contextual domain which is modified by the PP. Considering that this is the first mention of the referent into the discourse, the existential semantics are more probable than the copular semantics. Similar analyses can be done for each of the examples listed above. Since we have determined that Example (36) is an existential, the syntax can be represented as (39).

(39)



The syntactic representation in (39) underlies the semantic hypothesis that the primary predication in existentials is the relation between the pivot and the contextual domain. The specifier of PredP is the base position for subjects in copular constructions. Consistent with Myler and Francez, the notation LOC indicates that the subject argument in existential predication is the contextual domain, which can then be specified with an adjunct phrase as in (39).[4] Examples (40) and (41) demonstrate that the pivot of an existential can move to the left-periphery, presumably to become topicalised.

(40) Ezekiel 23.2

בֶּן־אָדָם שְׁתַּיִם נָשִׁים בְּנוֹת אֵם־אַחַת הָיוּ

ben ʾāḏām štayîm nāšîm bənôṯ ʾēm ʾaḥaṯ hāyû

son.GEN man two women daughters.GEN mother one COP.PFV.3PL

Son of man, [$_{TOP}$ two women, daughters of one mother][$_{Voice}$ there were___$_{\text{two women, daughters of one mother}}$]]

Son of man, there were two women, daughters of the same mother.

(41) 2 Kings 7.3

וְאַרְבָּעָה אֲנָשִׁים הָיוּ מְצֹרָעִים פֶּתַח הַשָּׁעַר

wə-ʾarbāʿâ ʾănāšîm hāyû məṣōrāʿîm peṯaḥ haš-šāʿar

CONJ-four men COP.PFV.3PL lepers opening ART-gate

[$_{TOP}$ Four men][$_{Voice}$ there were___$_{\text{four men}}$ who were lepers at the entrance to the

gate.]]

There were four men who were lepers at the entrance to the gate.

4. Francez does not use $Pred_{EXIST}$ in his work, though Myler does.

A coda may also be topicalized as in (42).

(42) Exodus 16.13
וּבַבֹּקֶר הָיְתָה שִׁכְבַת הַטַּל סָבִיב לַמַּחֲנֶה
û-ḇabbōqer hāyṯâ šiḵḇaṯ haṭ-ṭal sāḇîḇ lam-maḥănê
CONJ-in.ART.morning COP.PFV.3FSG layer ART-dew around to.ART-camp
[$_{TOP}$In the morning] [$_{Voice}$ there was a layer of dew around the camp_____$_{in\ the\ morning}$]].
In the morning there was a layer of dew around the camp.

The GQ analysis of Francez also helps explain the semantics of negative existentials as in (43).

(43) Numbers 20.2
וְלֹא־הָיָה מַיִם לָעֵדָה
wə- lō' hāyâ mayim lā-ʿēḏâ
CONJ-NEG COP.PFV.3MSG water to.ART-congregation
There was no water for the congregation.

(44) 1 Kings 17.7
לֹא־הָיָה גֶּשֶׁם בָּאָרֶץ
lō' hāyâ gēšem bā-'āreṣ
NEG COP.PFV.3MSG rain in.ART-land
There was no rain in the land.

The negative particle *lō'* in (43) functions as the quantifier which scopes over the whole predication as in (45).

(45) $\lambda P_{<e,t>}[no(\lambda x[water(x)],P)](C) = no(\lambda x[water(x)], C)$.

Since *no* scopes over C (the contextual domain), the coda *in the land* which specifies C provides the context where no(λx[water(x)] is true. Negative existentials will receive further analysis in Section 6.5

There are two particles in CH which are well-known for their role in existential sentences: *yēš* and *'ên*. Per the definition in Crystal (2008: 352) they are classified as particles because they are invariable items with grammatical functions which do not readily fit into a standard classification of parts of speech. These particles do not inflect for TAM and they are used in varying temporal contexts as (46) demonstrates.

(46) Genesis 42.1–2

בַּעֲבוּר הָאֲדָמָה חַתָּה כִּי לֹא־הָיָה גֶּשֶׁם בָּאָרֶץ בֹּשׁוּ אִכָּרִים חָפוּ רֹאשָׁם: כִּי גַם־אַיֶּלֶת בַּשָּׂדֶה יָלְדָה וְעָזוֹב
כִּי לֹא־הָיָה דֶּשֶׁא: וּפְרָאִים עָמְדוּ עַל־שְׂפָיִם שָׁאֲפוּ רוּחַ כַּתַּנִּים כָּלוּ עֵינֵיהֶם כִּי־אֵין עֵשֶׂב:

way-yar' *ya'ăqōḇ* *kî* *yēš* *šeḇer* *bə-miṣrāyim* *way*
CONJ-see.PRET.3MSG Jacob that EX grain in-Egypt CONJ
-yō'mer *ya'ăqōḇ* *ləḇānāyw* *lāmmâ* *tiṯrā'û*
-say.PRET.3MSG Jacob to-sons.3SMG why look.IPFV.REFL.2MPL
[5] *way-yō'mer* *hinnê šāma'tî* *kî* *yēš* *šeḇer* *bə-miṣrāyim*
CONJ-say.PRET.3MSG behold hear.PFV.1SG that EX grain in-Egypt
Jacob saw that there was grain in Egypt and he said to his sons, "Why do you look at each other?" He said, "Behold I heard that there is grain in Egypt."

In Example (46) the first occurrence of *yēš* is in the past temporal context of the narrative. The second example is in reported speech in which Jacob is reporting to his sons that there is (currently) grain in Egypt.

Just as the particle *yēš* is used in positive existentials, the particle *'ên* is used for negative existentials. The example in (47) demonstrates a minimal pair where the negative existential construction reviewed above is equivalent to the particle *'ên*.

(47) Jeremiah 14.4–6

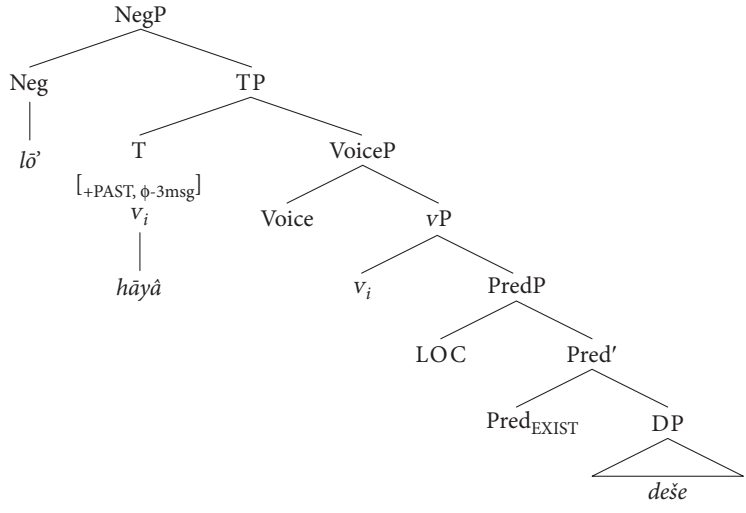
בַּעֲבוּר הָאֲדָמָה חַתָּה כִּי לֹא־הָיָה גֶּשֶׁם בָּאָרֶץ בֹּשׁוּ אִכָּרִים חָפוּ רֹאשָׁם: כִּי גַם־אַיֶּלֶת בַּשָּׂדֶה יָלְדָה וְעָזוֹב
כִּי לֹא־הָיָה דֶּשֶׁא: וּפְרָאִים עָמְדוּ עַל־שְׂפָיִם שָׁאֲפוּ רוּחַ כַּתַּנִּים כָּלוּ עֵינֵיהֶם כִּי־אֵין עֵשֶׂב:

ba-'ăḇûr *hā-'ăḏāmâ* *ḥattâ* *kî lō'* *hāyâ*
in.ART-because.GEN ART-ground dismay.PFV.3FSG for NEG COP.PFV.3MSG
gēšem *bā-'āreṣ* *bōšû* *'ikkārîm* *ḥāp̄û* *rō'šām:*
rain in.ART-land be.ashamed.PFV.3PL farmers cover.PFV.3PL heads.3MPL
kî gam 'ayyeleṯ *baś-śāḏê* *yoldâ* *wə'āzôḇ* *kî lō'*
for even doe in.ART-field fawn.PFV.3FSG forsake.INF.ABS for NEG
hāyâ *dešeʾ:* *ûp̄ərā'îm* *'omḏû* *'al šəp̄āyim* *šā'ăp̄û*
COP.PFV.3MS grass donkeys stand.PFV.3PL on heights pant.PFV.3PL air
rûaḥ *kat-tannîm kālû* *'ênêhêm* *kî 'ên* *'ēśeḇ:*
like.ART-jackals fail.PFV.3PL eyes.3PL for NEG.EX vegetation.

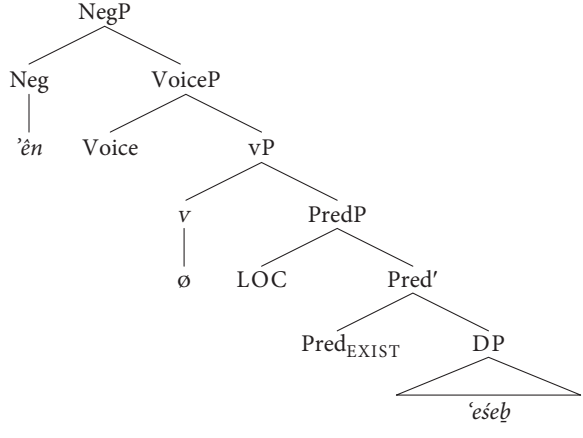
[4] Because of the ground that is dismayed,
since there is no rain on the land,
the farmers are ashamed;
they cover their heads.
[5] Even the doe in the field forsakes her newborn fawn
because there is no grass.
[6] The wild donkeys stand on the bare heights;
they pant for air like jackals;
their eyes fail
because there is no vegetation. (ESV)

The syntax of these different existential forms is represented in (48) and (49).

(48) Negative Existential with *hyh*



(49) Negative existential with *'ên*



An analysis of the particle *yēš* reveals some interesting contextual patterns that distinguish it from the existentials which use a form of *hyh*. An exhaustive analysis of every use of *yēš* reveals that this particle has a high percentage of usage with the interrogative particle *hă* (50) and (51)[5] and the conditional particle *'im* (52) which can also be used in rhetorical questions (53).

5. Gen. 24.23, 43.7, 44.19; Ex. 17.7; Num. 13.20; Dt. 13.4; 1 Sam. 9.11; 2 Sam. 9.1; 2 Kings 4.13, 10.15; Isa. 44.8; Jer. 14.22, 23.26, 37.17; Ps. 14.2, 53.3, 73.11; Job 5.1, 6.30, 25.3, 38.28.

(50) Genesis 24.23
הֲיֵשׁ בֵּית־אָבִיךְ מָקוֹם לָנוּ לָלִין
hă-yēš bēṯ ʾāḇîḵ māqôm lānû lā-lîn
INTER.EX house.GEN father.2MSG place for.1PL for-lodge.INF
Is there a place in your father's house for us to lodge?

(51) Judges 4.20
אִם־אִישׁ יָבוֹא וּשְׁאֲלֵךְ וְאָמַר הֲיֵשׁ־פֹּה אִישׁ וְאָמַרְתְּ אָיִן
ʾim ʾîš yāḇô' û-šəʾēlēḵ wə-ʾāmar
if man come.IPFV.3MSG CONJ-ask.PFV.3MSG.2FSG CONJ-say.PFV.3MSG
hă-yēš pō ʾîš wə-ʾāmartə ʾāyîn
INTER-EX here man CONJ -say.PFV.2FS NEG.EX
"If a man comes and asks you saying, "Is there anyone here?" Say "No one."

(52) 1 Samuel 20.8
וְאִם־יֶשׁ־בִּי עָוֹן הֲמִיתֵנִי אַתָּה
wə-ʾim yeš bî ʿāwôn hămîṯēnî ʾattâ
CONJ-if EX in.1SG guilt kill.IMP.1SG 2MSG
If there is guilt in me, kill me yourself.

(53) 1 Kings 18.10
חַי יְהוָה אֱלֹהֶיךָ אִם־יֶשׁ־גּוֹי וּמַמְלָכָה אֲשֶׁר לֹא־שָׁלַח אֲדֹנִי שָׁם לְבַקֶּשֶׁךָ
ḥay yhwh ʾĕlōhêḵā ʾim yēš gôy û-mamlāḵâ ʾăšer lō'
life.GEN YHWH god.2MSG if EX nation CONJ-kingdom which NEG
šālaḥ ʾăḏōnî šām lə-ḇaqqešḵā
send.PFV.3MSG lord.1SG there to-seek.INF.2MSG
As YHWH your God lives, has there been a nation or kingdom where my Lord has not sent to seek you?

The existential use of *hyh* never occurs with the interrogative particle *hă*.[6] In most conditional clauses with *hyh* the particle *kî* is used instead, as in (54) and (55).[7]

(54) 1 Kings 8.37
רָעָב כִּי־יִהְיֶה בָאָרֶץ
rāʿāḇ kî yihyê ḇā-ʾāreṣ
famine if COP.IPFV.3MSG in.ART-land
If there is famine in the land

6. The four occurrences where *hə* is prefixed to *hyh*, the verb is being used in its complement-less function reviewed in Section 4.3.2. Deut. 4.32; 2 Kings 7.2, 7.19; Joel 1.2.

7. Other examples include Lev. 13.42, 13.47; Dt. 19.11, 25.4; 1 Kings 8.37 (3x). There are 2 instances of existentials using *ʾim*: Num. 12.6, Am. 3.6.

(55) Deuteronomy 22.23
כִּי יִהְיֶה נַעֲרָה בְתוּלָה מְאֹרָשָׂה לְאִישׁ וּמְצָאָהּ אִישׁ בָּעִיר וְשָׁכַב עִמָּהּ
kî yihyeh naʿărâ bəṯûlâ məʾōrāśâ lə-ʾîš
if COP.IPFV.3MSG girl virgin betrothed.PTCP to-man
û-məṣāʾah ʾîš bā-ʿîr wə-šāḵaḇ ʿimmāh
CONJ-meet.WQTL.3MSG.3FSG man in.ART-city CONJ-lie.WQTL.3MSG with.3FSG
If there is a betrothed virgin and a man meets her in the city and lies with her,

Other particles which combine with *yēš* include *ʾûlay* (suppose/perhaps) (56),[8] *pen* (lest) (57),[9] *kî-ʾim* (surely) (58),[10] and *kî* (surely)(59).

(56) Genesis 18.24
אוּלַי יֵשׁ חֲמִשִּׁים צַדִּיקִם בְּתוֹךְ הָעִיר
ʾûlay yēš ḥămiššîm ṣaddîqim bə-ṯôḵ hā-ʿîr
Suppose EX fifty righteous in-midst.GEN ART-city
Suppose there are fifty righteous within the city.

(57) 2 Kings 10.23
חַפְּשׂוּ וּרְאוּ פֶּן־יֵשׁ־פֹּה עִמָּכֶם מֵעַבְדֵי יְהוָה
ḥappəśû û-rəʾû pen yēš pō ʿimmāḵem mēʿaḇḏê yhwh
search.IMP CONJ-see.IMP lest EX here with.2MPL servants.GEN YHWH
Search and see lest there are here among you any servants of YHWH.

(58) Proverbs 23.18
כִּי אִם־יֵשׁ אַחֲרִית
kî ʾim yēš ʾaḥărîṯ
surely EX future
Surely there is a future.

(59) Job 28.1
כִּי יֵשׁ לַכֶּסֶף מוֹצָא
kî yēš lak-kesep̄ môṣāʾ
that EX for-silver source
Surely there is a mine for silver.

Cowper and DeCaen (2017) place these "overt particles of illocutionary force" in a rich cartography of the CH left-periphery. The interrogative *hă* is in ForceP spelling out the feature [Q] (Cowper & DeCaen 2017: 14). The existential particles

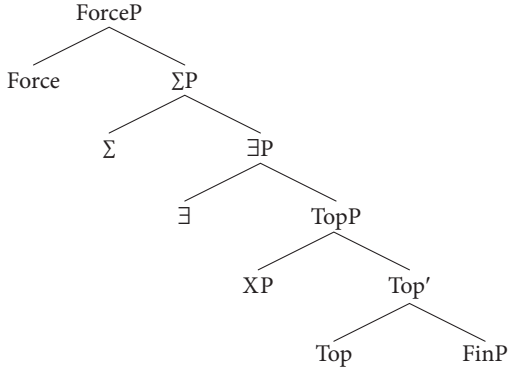
8. Lam. 3.29

9. Deut. 29.17 (2x); 2 Kings 10.23

10. 1 Sam. 21.5

yēš and *ʾên* they locate in an existential head ∃. The particle *ʾim* forms rhetorical questions and is found in a Polarity head Σ (Cowper and DeCaen 2017: 20). This cartography is represented in (60).

(60)

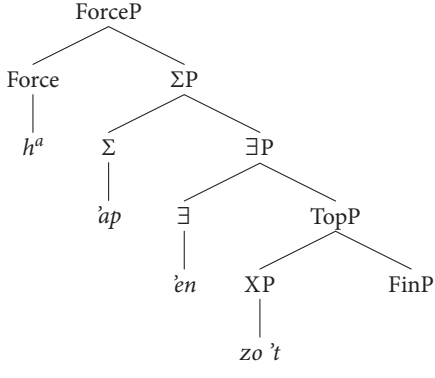


(Adapted from Cowper & DeCaen 2017: 21)

This expansion of the left-periphery is helpful in understanding many of the particles mentioned by Cowper and DeCaen, but the proposal of an existential head below Polarity and above Topic is not supported by the data. First of all, in the example they give, repeated in (61), *ʾên* is not being used as an existential particle.

(61) Amos 2.11
הַאַף אֵין־זֹאת
ha-ʾap̄ *ʾên* *zōʾṯ*
INTER- indeed NEG.EX this
Is this not true?

(Cowper & DeCaen 2017: 21–22)



As will be demonstrated below, both *yēš* and *ʾên* have non-existential roles. Example (61) is a clear case of one of these other roles. Additionally, existentials have a unique predicate relation between the pivot and the contextual domain.

As explained in Section 6.3, this relation is distinguished from the copular counterpart in the thematic domain, below VoiceP. It is not expected, then, that there would be a functional head in the left-periphery which hosts the existential distinction. Finally, there are cases where *hyh* in its existential function and these particles can have a topicalised constituent preceding them, as in (62) and (63), which is not allowed in the cartography of Cowper and DeCaen if there is a functional existential head above TopP.

(62) Exodus 16.13
וּבַבֹּקֶר הָיְתָה שִׁכְבַת הַטַּל סָבִיב לַמַּחֲנֶה
û-ḇab-bōqer hāyṯâ šiḵḇaṯ haṭ-ṭal sāḇîḇ lam-maḥănē
CONJ-in.ART-morning COP.PFV.3FSG layer ART-dew around to-ART.camp
In the morning, there was a layer of dew around the camp.

(63) 1 Samuel 21.5
אֵין־לֶחֶם חֹל אֶל־תַּחַת יָדִי כִּי־אִם־לֶחֶם קֹדֶשׁ יֵשׁ
ʾên leḥem ḥōl ʾel taḥaṯ yāḏî kîʾim leḥem qōḏeš yēš
NEG.EX bread common to under hand.1SG rather bread holy EX
There is no common bread on hand, but holy bread there is.

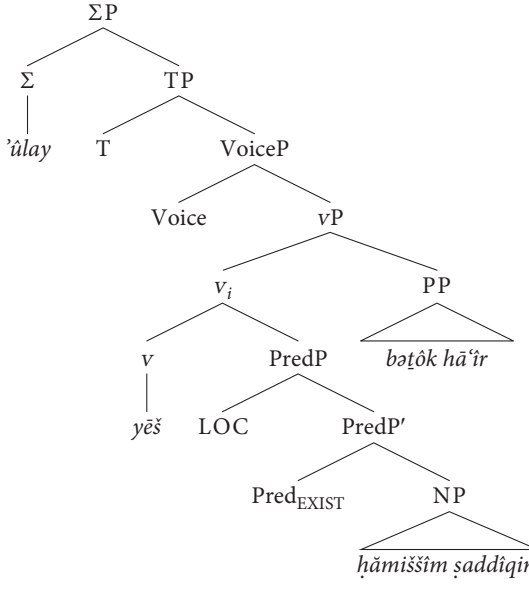
I disagree with Cowper and DeCaen, then, about the necessity of an existential functional head in the left-periphery. Instead I am proposing that the particle *yēš* is the Vocabulary Item selected for a specific context. All of the particles listed which are preceding *yēš* affect the certainty of the proposition. These can be categorized as particles of certainty which I represent with the label CERT. This label represents the list of particles of certainty mentioned by Cowper and DeCaen. These particles may be distributed among different functional heads as Cowper and DeCaen have presented or not. The pattern is that when they do appear, the Vocabulary Item *yēš* pronounces the little-*v* and the tense features specified on T can be valued by context. The Vocabulary Items and contexts of insertion are represented in (64).[11]

(64) $_{\text{VBE}} \leftrightarrow$ /*wayəhî*// T_{PAST}___$\text{Pred}_{\text{EXIST}}$
$_{\text{VBE}} \leftrightarrow$ /*wəhāyâ*// T_{FUT}___$\text{Pred}_{\text{EXIST}}$
$_{\text{VBE}} \leftrightarrow$ /*yēš*//CERT___$\text{Pred}_{\text{EXIST}}$

As existentials, these particles have the syntax represented in (65).

11. The examples with *hyh* are only Vocabulary Items for 3msg inflection. They will obviously be different when the agreeing constituent requires different φ-features.

(65) Genesis 18.24
אוּלַי יֵשׁ חֲמִשִּׁים צַדִּיקִם בְּתוֹךְ הָעִיר
ʾûlay yēš ḥămiššîm ṣaddîqim bə-ṯôḵ hā-ʿîr
Suppose EX fifty righteous in-midst.GEN ART-city
Suppose there are fifty righteous within the city.



While a complete cartography of the CH left-periphery is outside the scope of this book, the analysis of Cowper and DeCaen (minus an ∃P) combined with the previous analyses by Holmstedt (2014) and Naudé (1990, 2001) provide a good foundation for further research on the CH left-periphery.

I have already alluded to the non-existential functions of the particles *yēš* and *ʾên*. The data reveal two patterns which are non-existential. The first involves the combination of these particles with a participle as in (66)–(67). The second pattern seems to resemble simple predication (68)–(71).

Particle + participle

(66) Genesis 24.49
וְעַתָּה אִם־יֶשְׁכֶם עֹשִׂים חֶסֶד וֶאֱמֶת אֶת־אֲדֹנִי
wə-ʿattâ ʾim yešḵem ʿōśîm ḥeseḏ we-ʾĕmeṯ ʾeṯ ʾăḏōnî
CONJ-now if EX.2MPL make.PTCP love CONJ-truth with master.1SG
Now, if you are going to show love and faithfulness to my master,

(67) Genesis 20.7
וְאִם־אֵינְךָ מֵשִׁיב דַּע כִּי־מוֹת תָּמוּת אַתָּה
wə-ʾim ʾênəḵā mēšîḇ daʿ kî môṯ tāmûṯ ʾattâ
CONJ -if NEG.EX.2MSG return.PTCP knowIMP that die.INF.ABS die.IPFV.2MSG 2MSG
If you do not return her, know that you shall surely die.

Particle + simple predication

(68) Exodus 17.7
הֲיֵשׁ יְהוָה בְּקִרְבֵּנוּ אִם־אָיִן
hă-yēš yhwh bə-qirbēnû ʾim ʾāyîn
INTER-EX YHWH in-midst.1PL if NEG.EX
Is YHWH among us or not?

(69) 1 Samuel 9.11
הֲיֵשׁ בָּזֶה הָרֹאֶה
hă-yēš bā- zê hā-rōʾeh
INTER-EX in- this ART-seer
Is the seer here?

(70) 1 Samuel 14.39
כִּי אִם־יֶשְׁנוֹ בְּיוֹנָתָן בְּנִי כִּי מוֹת יָמוּת
kî ʾim yešnô bə-yônāṯān bənî kî môṯ yāmûṯ
for if EX.3MSG in-Jonathan son.1SG that dieINF.ABS die.IPFV.3MSG
Even if it is in my son Jonathan, he shall surely die.

(71) Genesis 37.29
וְהִנֵּה אֵין־יוֹסֵף בַּבּוֹר
wə-hinnê ʾên yôsēp̄ bab-bôr
CONJ-behold NEG.EX Joseph in.ART-pit
Behold, Joseph was not in the pit.

Following the work of Naudé and Miller-Naudé (2016) and Naudé, Miller-Naudé, and Wilson (forthcoming), I am proposing that these patterns find their explanation in diachronic change which has resulted in multiple patterns existing simultaneously in the language.

6.5 Diachronic change in ancient Hebrew existentials[12]

In research conducted by Naudé and Miller-Naudé (2016) and Naudé, Miller-Naudé, and Wilson (forthcoming, 2019) negative existentials in ancient Hebrew (including post-biblical Qumran and Mishnaic Hebrew) demonstrate a cycle of change which corresponds to Croft's (1991b) negative existential cycle.

This cycle is a cross-linguistic pattern in which a standard verbal negator can be shown to evolve out of a negative existential particle which then can be reanalyzed itself. This cycle has been demonstrated in many languages in Veselinova (2013, 2016) and Veselinova & Hamari (forthcoming). In his original formulation, Croft identifies three types of languages which have no synchronic variation in their negative constructions. In type A, the negation of existential constructions and verbal constructions are accomplished by the same negator. In Type B there is a special negative existential construction which is distinct from the verbal negator. Type C has a special negative existential construction which is identical to the verbal negator (Croft 1991b: 6). Croft then describes three types of languages which have synchronic variation: A~B, B~C, C~A. Croft says, "Thus, we hypothesize a negative existential cycle, in which a special negative existential form arises (A>B), comes to be used as a verbal negator (B>C), and then is supplemented by the positive existential predicate in its existential function, restoring a 'regular' negative + existential construction (C>A)" (Croft 1991b: 6). This cycle has been modified as data from new languages have been analyzed, but it is generally a universal path of diachronic change.

Naudé and Miller-Naudé (2016) and Naudé, Miller-Naudé and Wilson (2019, forthcoming) have identified that this cycle explains the variation in CH negation, both of existentials and verbal sentences. They argue that CH exhibits a clear B~C stage in Croft's typology in which the negative existential particle is expanding its domain of use from existential sentences to verbal sentences (Naudé & Miller-Naudé 2016: 850). The use of an existential particle to negate participles is one of the most common ways cross-linguistically for negative existentials to begin taking over the verbal domain (Veselinova 2016: 157). The negative existential construction *lō'+hyh* also exhibits diachronic change into Mishnaic Hebrew (Naudé, Miller-Naudé & Wilson forthcoming).

In his theory of language change and diffusion, Naudé (2012) describes four dimensions that are relevant to analysing ancient Hebrew texts with historical linguistics. First, the source of change is the found in the individual dimension. An

12. Much of the information in this section has recently been published in Naudé, Miller-Naudé & Wilson (2019) and will be in Naudé, Miller-Naudé & Wilson (forthcoming) though different stages of Ancient Hebrew are featured in each.

idiolect forms as the grammar of a particular individual differs from the grammar of their parents or community. The second dimension is sociological as the new grammatical change is diffused throughout the language community. Naudé states that this diffusion is gradual and in the shape of an S-shaped curve with the new change beginning slowly, accelerating, and finally leveling off. The third dimension is the chronological. In this dimension, newer forms exist and change side-by-side with older forms called "stylistic fossils." Naudé says, "These stylistic fossils are in competition–at certain stages they are dominant and at other stages they are dominated–and they may be present in the speech community for centuries" (Naudé 2012: 73). As older forms erode and become limited in their use, newer forms pick up the slack and represent a renewal, a "diachronic cycle." The fourth dimension is the important recognition that our data come from written text. Writing is secondary to speech and differences can be expected between the two. The written dimension provides a snap-shot of a language at the time of writing. If our data come from written texts, then this writing will demonstrate newer diffused forms and stylistic fossils side-by-side.

The B~C stage of CH according to Croft's cycle is datable based on paleographic evidence from inscriptions:

(72) Silwan 1.1[13]
ʾyn *[p]h* *ksp*
NEG.EX here silver
There is no silver here

(73) Lachish 4.7-8[14]
ʾyn[n]y *šlḥ*
NEG.EX.1CS send.PTCP
I am not sending.

Examples (72) and (73) give evidence of the negative existential particle as an existential negator and as a standard negator of a participial. These inscriptions prove that this variation exists as early as the 6th century B.C.E. The CH data also demonstrate that both of these patterns are active throughout the whole corpus of the Hebrew Bible. These forms demonstrate further evolution in Qumran Hebrew and Mishnaic Hebrew. CH is a snap-shot of a language in transition with respect to how the negative existential particle works. The negative existential particle exists simultaneously as a negative existential and as a standard negator of the participle. As I will demonstrate, the same explanation is likely for variation in the positive

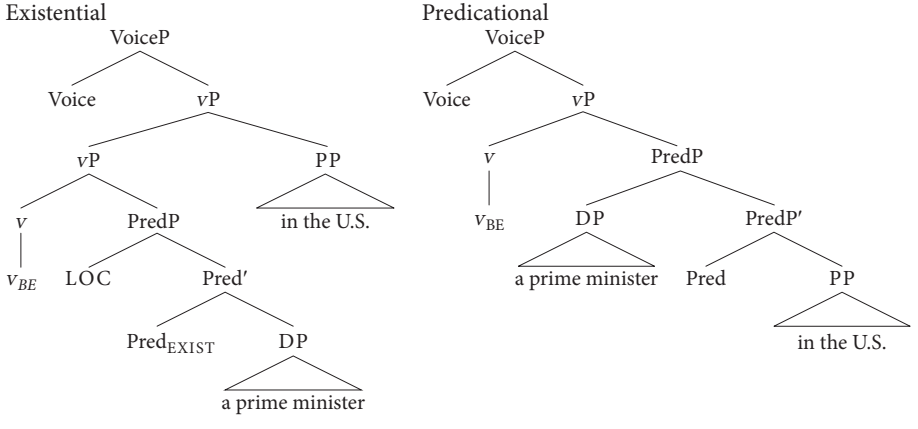
13. See also Lachish 4.5.

14. See also Arad 40.13–14.

existential particle *yēš*. A relevant next question is what explanation there may be for the evolution of these particles.

According to Naudé, changes in language are "revisions and differences in the features of lexical items in the mental lexicon of the individual" (Naudé 2012: 72). Changes in underlying syntactic representations are the locus of creation of an idiolect. The source of the evolution of these existential particles is a change in the underlying syntactic representation. I have already shown the syntactic similarity of existential and predicational sentences which use a form of *hyh*. Predicational and existential sentences are different because of the functional head which creates a different fundamental relation in narrow syntax. $Pred_{EXIST}$ applies the pivot NP to the contextual domain as the primary relation. Predicational sentences, however, have a different functional head Pred which relates an external argument to a complement XP. The differences in their underlying syntactic representation are displayed in Examples (74).

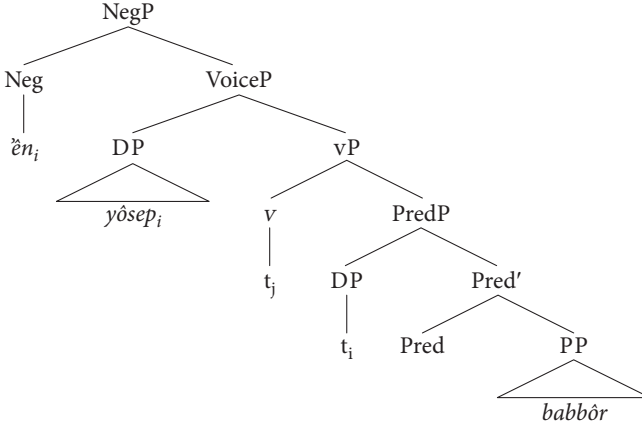
(74) There is a prime minister in the U.S.
A prime minister is in the U.S.



For an existential sentence to evolve into a predicational sentence, it would need to start with the functional Pred head. An individual language user would need to confuse the fundamental relation in an existential utterance as being predicational. This would create an idiolect which would need to diffuse throughout the language community. This is what seems to have happened with the particles *yēš* and *'ên*. The participial predicates and simple predication patterns have developed in CH because of a reinterpretation of the underlying syntax and semantics of the functional head Pred. This change is visible not only because the negative existential has developed into a standard negator of participles, but also because both

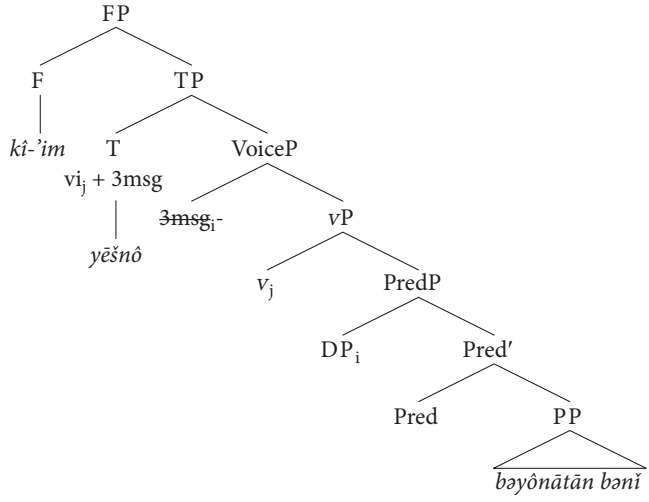
particles can host subject agreement, which they do not do as pure existentials. Examples (75) and (76) and their underlying syntax are representative of the non-existential evolution of these particles.

(75) Genesis 37.29
וְהִנֵּה אֵין־יוֹסֵף בַּבּוֹר
wə-hinnê ʾên yôsēp̄ bab-bôr
CONJ-behold NEG.EX Joseph in.ART-pit
Behold, Joseph was not in the pit.



(76) 1 Samuel 14.39[15]
כִּי אִם־יֶשְׁנוֹ בִּיהוֹנָתָן בְּנִי כִּי מוֹת יָמוּת
kî ʾim yešnô bə-yônāṯān bənî kî môṯ yāmûṯ
for if EX.3MSG in-Jonathan son.1SG that die.INF.ABS die.IPFV.3MSG
Even if it is in my son Jonathan, he shall surely die.

15. The FP maximal projections stands for some functional head in the left-periphery. More work needs to be done to define the full cartography of the left periphery in CH (see Cowper & DeCaen 2017; Holmstedt 2014; and Naudé 1990, 2001).



The same syntactic processes covered in Chapter 4 apply to this sentence. What is unique about this sentence compared to those covered in chapter four is that the particle *yēš* appears to be functioning as a present tense copula. This means that the innovation in this particle has eliminated the $Pred_{EXIST}$ and allowed Vocabulary Insertion in new contexts. One post-syntactic operation which makes this possible once again is Impoverishment. Impoverishment has to do with the deletion of features before phonological spell-out (Bonet 1991; Halle 2000; Arregi & Nevins 2007). Since a Vocabulary Item may not apply to a morpheme that does not have the correct contextual properties, there needs to be a deletion rule which changes the properties. There could be a deletion rule which deletes the contextual requirement of $Pred_{EXIST}$ and accounts for the insertion of *yēš* and *'ên* in contexts which do not have an underlying $Pred_{EXIST}$. The final context in which these particles, as well as the verb *hyh*, are found is predicative possession.

6.6 Predicative possession in Classical Hebrew

In the tradition of Freeze (1992), predicative possessives are similar to existentials. The primary difference between existentials and predicative possessives is that the coda is not a location but a person. This means that the possessor is the location of the possessee and the relationship between them is one of existence. The analyses by Myler (2016) and Francez (2007, 2009) refine the relationship between possessives, existentials, and predicate locatives. The semantic relationship of predicative possession is schematised by Myler in (77):

(77) $\lambda P_{<e,t>}.\lambda y_{e.}\lambda x_{e}.\lambda e_{s}.P(x)\&Poss(y,x,e)$. (Myler 2016: 258)

One critical difference between predicative possessives and existentials seen in (77) is that there are two obligatory arguments. The pivot in existentials is essentially a relation that takes the contextual domain as its sole argument, while the coda is optional. In possessives, the possessor functions as the coda but is obligatory.

Cross-linguistically, languages can be divided into HAVE-languages (e.g. English) or BE-languages (CH) in how they structure their predicate possessives, with a few languages using some form of a WITH adposition.[16] Myler's research demonstrates that this cross-linguistic phenomenon can be explained based on the idea of transitivity. What Myler means by transitivity is that HAVE-based languages require a transitive Voice head which has a specifier and bears interpretable φ-features with which some DP is licensed (Myler 2016: 10). He says, "HAVE…is the form that BE takes when something is merged in the specifier of a Voice head bearing phi-features–in other words, HAVE is the transitive form of BE" (Myler 2016: 10). Since CH belongs to the class of BE-languages, Voice does not require a specifier and does not bear φ-features. The precise syntax and semantics of CH predicative possessives is complex enough to merit its own book and will not be expounded here.

Research on predicative possessives in CH has been done previously in the dissertation of Bar Asher (2009). His work also cites Francez (2007, 2009), but departs from that analysis preferring instead a view of existential predication based on the concept of Instantiation.[17] Bar Asher identifies four different types of predicative possessives in CH which he calls *allosentences* of the same construction. These are constructions which have the same truth conditions and use the same conceptual strategies though not always sharing the same components (Bar Asher 2009: 423). The first he calls dative-PPC (Predicative Possessive Construction). Example (78) (his (2)) demonstrates this construction.

(78) 1 Samuel 1.2
וְלוֹ שְׁתֵּי נָשִׁים ....וְשֵׁם הַשֵּׁנִית פְּנִנָּה וַיְהִי לִפְנִנָּה יְלָדִים וּלְחַנָּה אֵין יְלָדִים
wə-lô štê nāšîm… wə-šēm wə -šēm haš-šēnîṯ pəninnâ
CONJ -to.3MSG two wives… CONJ -name ART-other Peninnah
wayhî li-p̄ninnâ yəlāḏîm û-lə -ḥannâ ʾên
CONJ.COP.PRET.3MSG to-Peninnah children CONJ-to-Hannah NEG.EX
yəlāḏîm
children
He had two wives… one was called Peninnah. Peninnah had children, but Hannah had none. (Bar Asher 2009: 362)

16. The situation is more complex than this, but this broad generalization is sufficient for our analysis. See Stassen 2009.

17. The notion of Instantiation in Bar Asher's dissertation is distinct from that of McNally (1992).

The second type of predicative possession he calls Topic-PPC (Bar Asher 2009: 369). He provides (79) (his (17)) to illustrate this type.

(79) 1 Samuel 25.6
וְאַתָּה שָׁלוֹם וּבֵיתְךָ שָׁלוֹם וְכֹל אֲשֶׁר־לְךָ שָׁלוֹם
wə-'attâ šālôm û-ḇêṯəḵā šālôm wə-ḵōl 'ăšer ləḵā šālôm
CONJ.2MSG peace CONJ-house.2MSG peace CONJ-all which to.2MSG peace
Good health to you and your household! And good health to all that is yours.

He argues that this is equivalent to the dative PPC and thus should also be an example of predicative possession (Bar Asher 2009: 370). In these constructions he says that the possessor is the topic and the possessed is the grammatical subject of an existential sentences. This is clearly at odds with the analysis of Francez, who calls the pivot of an existential (i.e. the possessee in a predicative possessive) the predicate. Bar Asher also states that the topic is not part of the core predication or the argument structure (Bar Asher 2009: 372). He acknowledges that the term *topic* is not the best term to describe the possessor constituent in these constructions though he still continues to use it (Bar Asher 2009: 372). He goes on to explain that though there is no explicit representation of the existential predication, it is still there and then he gives the following example to illustrate:

(80) Topic main sentence
'attâ šālōm
2MP health/peace
Have good health!

He says that the main sentence is a verbless sentence with a single element. This sentence claims the existence of its only NP as its core semantic predication. The sentence in (80) could be paraphrased "as for you, may there be health." The predication in this sentence is existential and the topic transforms it into a PPC by providing the domain in which the predication should be applied. (Bar Asher 2009: 373–374). Additionally, there is nothing in the predication which contains the lexical meaning of possession. The possessive interpretation is strictly pragmatic (Bar Asher 2009: 378).

The third type of predicative possessive he lists is the Genitive PPC. Example (81) provides an example.

(81) Psalm 115.7
יָדֵיהֶם וְלֹא יְמִישׁוּן רַגְלֵיהֶם וְלֹא יְהַלֵּכוּ
yəḏêhem wə-lō' yəmîšûn raḡlêhem wə-lō' yəhallēḵû
hands.3MPL CONJ-NEG feel.IMP.3MPL feet.3MPL CONJ-NEG walk.IPFV.3MPL
They have hands but cannot feel; they have feet, but cannot walk.

This type appears to be a single constituent with a suffixed pronoun, rather than a full clause. Though these constructions are rare, Bar Asher considers them to be examples of predicative possession and says, "[they] can be considered as a subgroup of the topic-PPC, with the genitive pronoun anchoring the main predication to the topic-P[ossesso]R which provides the domain" (Bar Asher 2009: 417).

The fourth type is called the Comitative PPC. He says that there are two possible types of comitative PPCs: one in which the possessor is the grammatical subject and the possessee is the complement following a WITH-preposition, and the other in which the possessee is the subject and the possessor follows the WITH-preposition as the complement (Bar Asher 2009: 418). He identifies a construction similar to the second type in CH (82).

(82) 1 Samuel 9.7
מָה אִתָּנוּ
mâ ʾittānû
what with.1PL
What do we have?

He states that the sentence in (82) could just be interpreted as the "regular use of 'with'" and is probably not an instance of comitative PPC (Bar Asher 2009: 419). Bar Asher has offered the most thorough description of predicative possessives in CH. Since these constructions also make use of *hyh*, the existential particles, and verbless clauses, I will provide examples and make a few observations.

Examples (83) and (84) provide a minimal pair expressing predicative possession in several ways including the negative existential strategies *lōʾ hāyâ* (83) and *ʾên* (84) plus a prefixed preposition on the possessor as well as the existential strategy of *wayhî* (84).

(83) 2 Samuel 6.23
וּלְמִיכַל בַּת־שָׁאוּל לֹא־הָיָה לָהּ יֶלֶד עַד יוֹם מוֹתָהּ
û-lə-mîḵal baṯ šāʾûl lōʾ hāyâ lāh yāleḏ ʿaḏ
CONJ-to-Michal daughter.GEN Saul NEG COP.PFV.3MSG to.3FSG children until
yôm môṯah
dayGEN death.3FSG
And Michal the daughter of Saul did not have children until the day of her death.

(84) 1 Samuel 1.2
וַיְהִי לִפְנִנָּה יְלָדִים וּלְחַנָּה אֵין יְלָדִים
wayhî li-p̄ninnâ yəlāḏîm û-lə-ḥannâ ʾên
CONJ.COP.PRET.3MSG to-Peninnah children CONJ-to-Hannah NEG.EX
yəlāḏîm
children
Peninnah had children, but Hannah had no children.

Examples (85)–(87) demonstrate predicative possession with the verb *hyh* with difference temporal reference and different word orders.

(85) Genesis 12.16
וַיְהִי־לוֹ צֹאן־וּבָקָר
wayhî lô ṣōʾn û-ḇāqār
CONJ.COP.PRET.3MSG to.3MSG sheep CONJ-cattle
He had sheep and cattle.

(86) Genesis 11.3
וַתְּהִי לָהֶם הַלְּבֵנָה לְאָבֶן וְהַחֵמָר הָיָה לָהֶם לַחֹמֶר
wattəhî lāhem hal-ləḇēnâ lə-ʾāḇen wə-ha - ḥēmār
CONJ.COP.PRET.3FSG to.3MPL ART-brick for-stone CONJ-ART-bitumen
hāyâ lāhem la-ḥōmer
COP.PFV.3MSG to.3MPL for.ART-morter
They had brick for stone and bitumen they had for morter.

(87) Deuteronomy 28.41
בָּנִים וּבָנוֹת תּוֹלִיד וְלֹא־יִהְיוּ לָךְ
bānîm û- ḇānôṯ tôlîḏ wə-lōʾ yihyû lāḵ
sons CONJ- daughters bear.IPFV.2MSG CONJ-NEG COP.IPFV.3MPL to.2FSG
You will bear sons and daughters but they will not be yours.

Examples (88)–(89) demonstrate predicative possession with the existential particles.

(88) Genesis 44.20
וַנֹּאמֶר אֶל־אֲדֹנִי יֶשׁ־לָנוּ אָב
wan-nōʾmer ʾel ʾăḏōnî yeš lānû ʾāḇ
CONJ-say.PRET.1PL to Lord.1SG EX to.1PL father
We said to my Lord, "We have a father."

(89) Numbers 5.8
וְאִם־אֵין לָאִישׁ גֹּאֵל
wə- ʾim ʾên lā-ʾîš gōʾēl
CONJ -if NEG.EX to.ART-man kin
If the man has no kin

Examples (90)–(91) demonstrate that predicative possession, in contrast to existentials, may be accomplished with a verbless clause.

(90) 2 Samuel 3.7
וּלְשָׁאוּל פִּלֶגֶשׁ וּשְׁמָהּ רִצְפָּה
û-lə -šāʾûl pilegeš û-šəmāh riṣpâ
CONJ-to-Saul concubine CONJ-name.3FSG Rizpah
Saul had a concubine and her name was Rizpah.

(91) 2 Kings 10.19
כִּי זֶבַח גָּדוֹל לִי לַבַּעַל
kî zeḇaḥ gāḏôl lî lab-baʿal
for sacrifice great to.1SG for.ART-Baal
For I have a great sacrifice for Baal.

The following examples demonstrate that CH has a few examples which accomplish possession with a WITH-preposition combined with either *hyh* (92)–(93) or *yēš* (94)–(95), which confirms Bar Asher's comitative category.

(92) Joshua 8.20
וְלֹא־הָיָה בָהֶם יָדִים לָנוּס
wə-lōʾ hāyâ ḇāhem yāḏayim lā-nûs
CONJ -NEG COP.PFV.3MS with.3MPL hands to-flee.INF
They did not have power to flee.

(93) 2 Chronicles 9.4
וְלֹא־הָיָה עוֹד בָּהּ רוּחַ
wə-lōʾ hāyâ ʿôḏ bāh rûaḥ
CONJ -NEG COP.PFV.3MSG still with.3FSG breath
She no longer had breath.

(94) 2 Chronicles 16.9
כִּי מֵעַתָּה יֵשׁ עִמְּךָ מִלְחָמוֹת
kî mē-ʿattâ yēš ʿimməḵā milḥāmôṯ
for from-now EX with.2MSG wars
For from now on you will have wars.

(95) 2 Chronicles 25.8
כִּי יֶשׁ־כֹּחַ בֶּאלֹהִים לַעְזוֹר וּלְהַכְשִׁיל
kî yeš kōaḥ bē-ʾlōhîm la-ʿzôr û-lə-haḵšîl
for EX strength with-god to-help.INF CONJ-to-cast.down.INF
For God has strength to help or to cast down.

The fact that CH predicative possessives utilize the same constructions as existentials is not surprising considering the description of BE-type languages in Myler.

What is surprising, however, is that they use verbless clauses without any form of *hyh* or existential particle. The account of CH existentials in Section 6.3 described them as constructions which necessarily have an overt form of *hyh* or one of the existential particles. In predicative possession, this rule seems to be relaxed.

CHAPTER 7

Conclusions and a way forward for analyzing copular and existential sentences

The approach to copular and existential sentences in CH in this volume has demonstrated what can be gained if ancient languages are evaluated with modern methods of linguistic analysis. In Chapter 2, I review the theoretical and cross-linguistic issues confronted in researching this subject. This includes defining predication and understanding the taxonomy of non-verbal predicate types. I also present the challenge of defining lexical categories cross-linguistically and settle on the constructivist approach represented in Distributed Morphology. In Chapter 3, I introduce the data of CH. This chapter demonstrates the variability in CH copular and existential sentences. I also provide a brief excurses on the history of the term *nominal clause* in Hebrew studies. The history of this term as a label for the verbless clause, I argue, is idiosyncratic and not a helpful label going forward. Chapter 4 is the most important chapter and models how copular sentences are built both syntactically and semantically.

First, I argue that an understanding of copular sentences is best understood within the assumptions of Distributed Morphology. The data from CH demonstrate that the same syntactic elements can render very different semantic interpretations. Rather than postulating that the semantic variation is found in homonymous elements in a Lexicon (a lexicalist view), it is more likely that there is a single generative engine which manipulates bundles of features that are pronounced in PF and interpreted in LF. The different interpretations in LF are due to different allosemes of *v* which determine the type of eventuality of the predicate, and Voice, which determines the type of external argument. The different eventualities are based on the type of Pred head in the syntax. This conceptualization provides an explanation for the variation in CH copular sentences.

Second, I demonstrate how post-syntactic operations such as Fusion and Vocabulary Insertion lead to the overt spell-out of the CH copula *hyh* in certain contexts instead of the more common verbless clause. I demonstrate how the syntax is built through each phase of the derivation and conclude that the copula *hyh* should be considered a type of auxiliary which is pronounced in a limited number of contexts after it has valued certain features specified on a number of heads in the inflectional domain. I also discuss the curious phenomenon where

it seems as though the context can satisfy features on T thereby enabling a verbless clause to exist in past, present, and future temporal contexts. I end the chapter explaining how the post-syntactic operation of Impoverishment accounts for the pronominal copula.

In Chapter 5, following Wilson (2019, forthcoming) I explain the role of the copula in the left-periphery which is very common in CH. This copula exists to signal that a certain type of update to the common ground will be made upon which following information should be built. This chapter is different from the others in that it brings in the pragmatic, alternative semantics research of Roberts (2012) and Murray (2014). In Chapter 6, I provide a syntactic and semantic analysis of CH existential sentences following the work of Francez (2007, 2009) and Myler (2016, 2018). I describe how existentials are different from predicational copular sentences and that existentials are another type of construction which requires the pronunciation of the copula *hyh* in CH. There are also existential particles in CH which display variation due to diachronic change according to the existential cycle identified by Croft (1991b). I conclude the chapter by discussing predicative possessives in CH and how they are similar to existentials. There is one interesting fact about possessives in CH in that they can be accomplished with a verbless clause, while existentials cannot.

This book is a demonstration of what is possible when the advances of modern linguistics are applied to ancient languages, specifically CH. This language has been analyzed for millennia and yet research on a subject as basic as copular and existential predication still renders exciting results.

There are a number of avenues for future research which this book has illuminated. First, it remains to be worked out what role, exactly, the context plays in valuing tense features. CH requires the copula in future tense contexts usually, but not always. If the context is clear, the copula can be omitted. How this works remains a subject for future research. Second, it is not clear where in the left-periphery the isolated *hyh* functions. There is a gap between the work of those such as Roberts (2010) and Murray (2014) who are illuminating fascinating features of speaker-addressee dynamics and the work which describes the cartography of the left-periphery.

Finally, and most importantly, this approach to copular sentences has implications for the future of research on copular sentences theoretically and cross-linguistically. Adger and Ramchand (2003), Markman (2008), Cowper (2010), Harves (2002), Roy (2013) and others have already stated that copular sentences can have an eventive reading. In Chapter 4, I discussed how a Pred_{Ev} in the syntax can account for achievement semantics in *v* and an experiencer argument in the specifier of Voice. These different semantic interpretations are accomplished though the exponent is the same. This book provides a way of explaining semantic

variation in copular sentences without postulating different copulas in a Lexicon. I believe it is possible to take this research further and provide an explanation for how so-called pseudo-copulas or semi-copulas could be accommodated in this approach as well. Sentences such as (96)–(100) seem like they should be easy to accommodate in this approach.

(96) That car *seems* old.

(97) He *remains* a good friend.

(98) She *looks* pretty.

(99) *ɣʷadi ɣuno-q zeq'wen* (Tsez, Sagada, own fieldwork)
raven tree-POSS.ESS be-PAST.UNW
The raven was on the tree (I didn't see it)

(100) *ɣʷadi ɣuno-q zeq'wo* (Tsez, Sagada own fieldwork)
raven tree-POSS.ESS be-PAST.W
The raven was on the tree (I saw it)

(101) *gde naxodica café?* (Russian)
where is-located café
Where is the café?

The research on copular sentences mentioned in this volume has already demonstrated that there are a number of features which control the shape of copular sentences cross-linguistically. There are taxonomic variables in some languages (e.g. ±predicative, ±locative). There are aspectual variables (±stage, ±inchoative). It may be possible to expand to include perceptive variables such ±evidence as in (98–100)[1] and ±commitment (96). DM posits a Universal Inventory of Features which accounts for φ-features among other things. Could this inventory of features not be expanded to control relationships between subject and predicate? In this volume, what accounts for the variation in copular sentence starts from the functional Pred head which is a bundle of features controlling the relationship of subject (in the specifier of PredP) and predicate (in the complement of Pred). The research has already posited five Pred heads that affect the relationship between Subject and Predicate: Pred, $\text{Pred}_{\text{EXIST}}$, $\text{Pred}_{\text{STAGE}}$, $\text{Pred}_{\text{INDIV}}$, and Pred_{Ev}. With the DM assumptions about syntax, these heads are just different combinations of features which affect the interpretation and pronunciation of copular sentences. It seems possible that adding features such as ±evidence and ±commitment, as well as ±duration could account for pseudo-copulas such as *seems* and *remains* as well

1. See also the recent connection of evidentiality to the choice of *ser* and *estar* in Spanish, Camacho (2015) and Escandell-Vidall (2018).

as others. It could also make room for the effect of evidentiality on copulas, which is necessary considering the data from Tsez in (99) and (100). With the allosemic approach taken in this volume, it is also possible to account for the different semantic roles the subject and predicate hold in these different constructions. In some languages, these relations will be pronounced with different copulas, in others, with pronominal elements or separate verbs. The Vocabulary Items will change language-by-language, but the universal inventory of relationships between subject and non-verbal predicate are fixed. It seems like the approach taken in this volume could provide a framework for how to model these relationships and explain both the diversity and uniformity of copular sentences cross-linguistically.

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Index

This book presents a novel account of syntactic and semantic variation in copular and existential sentences in Classical Hebrew. Like many languages, the system of Classical Hebrew copular sentences is quite complex, containing zero, pronominal, and verbal forms as well as eventive and inchoative semantics. Approaching this subject from the framework of Distributed Morphology provides an elegant and comprehensive explanation for both the syntactic and semantic variation in these sentences. This book also presents a theoretical model for analyzing copular sentences in other languages included related phenomena– such as pseudo-copulas. It is also a demonstration of what can be gained by applying modern linguistic analyses to dead languages. Citing and building off previous studies on this topic, this book will be of interest to those interested in the theoretical examination of copular and existential sentences and to those interested in Classical Hebrew more specifically.

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