

**A SYNTACTIC ANALYSIS OF PHRASAL COORDINATION  
IN BIBLICAL HEBREW**

by

**JESSE ROY SCHEUMANN**  
(Student number: 2016384576)

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SUPERVISOR: PROF JA NAUDÉ

CO-SUPERVISOR: PROF CL MILLER-NAUDÉ

## DECLARATION

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*Jesse Scheumann* .....

## ABSTRACT

This study provides a syntactic analysis of phrasal coordination in Biblical Hebrew (BH). I investigate every occurrence of conjunction *waw* at the phrase (as opposed to the clause) level in the Pentateuch, a total of 2,714 tokens, employing the framework of Minimalist Syntax. My analysis draws upon cross-linguistic typology studies on coordination, and employs a complexity approach that treats language as a connected whole with the interacting levels of syntax, semantics, prosody, morphophonology, and discourse.

Much of what has been written on *waw* consists primarily of semantic observations on clausal coordination. Common questions considered in previous studies include the following: Should one always translate *waw*, and how many meanings and uses are associated with *waw*? By approaching coordination with *waw* from a semantic viewpoint, it is impossible to determine precisely how coordination is distinct from either subordination or apposition.

This thesis demonstrates the value of developing a sound linguistic theory of the structure of coordination and the function of the coordinator. I argue that the structure is hierarchical with the conjuncts as specifier and complement and the coordinator as a defective head. Within this framework, I answer three questions. First, does *waw* have one or multiple functions? Second, what determines when *waw* occurs overtly? Third, how does *waw* interact with prosody, linear order, syntactic categories, scope-taking elements, and verbal agreement?

As a result of coordination being a hierarchical structure, I demonstrate that *waw* always forms a sub-constituent with one of the conjuncts. As a proclitic, the allophones of *waw* are determined either by the phonology of the second conjunct or by how the second conjunct aligns with a prosodic break as represented by the Masoretic accents. Further, the usage of pronominal suffixes consistently binds the second conjunct to the first, a direct consequence of the hierarchical structure of coordination in BH.

As a result of the conjuncts functioning as specifier and complement, I show that neither conjunct can move and that all cases of “split coordination” are a result of clausal ellipsis: gapping, stripping, or right node raising. Cases of conjunct drop and “comitative *waw*” are better explained as involving ellipsis or a verbless clause. In cases of initial coordination, the first *waw* functions not as a coordinator but as a parasitic Focus particle. Finally, there are only two types of coordination structure with more than two conjuncts: multiple coordination, which consists of multiple coordinator heads and allows for sub-constituency, and final coordination, which consists of multiple specifiers and does not allow for sub-constituency.

As a result of the coordinator being a head element, it maintains a function when it is null-expressed. Within multiple coordination, a null coordinator marks the left edge of a sub-constituent structure; completely-null coordination blocks a sub-constituency reading. As a defective head, *waw* projects the category of the first conjunct, and may merge different syntactic categories, as long as they hold a semantic coherence in relatedness or resemblance. Moreover, *waw* allows negation, the object marker, and prepositions to take either narrow or wide scope over the conjuncts, producing distributive or collective readings of the conjuncts.

In relating this theory to apposition, this study creates new knowledge by distinguishing four structures: stacked appositives, embedded appositives, coordinate-complex appositives, and coordinated appositives. The final category provides both a motivation and a limitation for coordinating co-referential phrases in BH. This study also makes a novel contribution regarding partial agreement with conjoined subjects. BH always favours the higher, rather than closest, conjunct—something not reported in another partial-agreement language—and I interpret the significance of the pattern of optional agreement using a complexity approach.

**Key words:** coordination; sub-constituency; apposition; subordination; ellipsis; verbal agreement; generative syntax; Biblical Hebrew.

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## TRANSCRIPTION OF HEBREW CHARACTERS

### Consonants

א	ʾ	ח	ḥ	פ	p
ב	b	ט	ṭ	פּ/ף	p̄
בּ	b̄	י	y	צ/ץ	s
ג	g	כ	k	ק	q
גּ	ḡ	כּ/ך	k̄	ר	r
ד	d	ל	l	שׁ	ś
דּ	d̄	מ/ם	m	שׂ	š
ה	h	נ/ן	n	ת	t
ו	w	ס	s	תּ	t̄
ז	z	ע	ʿ		

### Vowels

אָ	ā	אֶה	â	אֵה	ə
אֵה	a	אֵי/אֶה	ê	אֵי	ǎ
אֶה	ē	אֵי/אֶה	ê	אֵי	ě
אֵה	e	אֵי	î	אֵי	õ
אִה	ī	אֵי/אֶה	ô		
אֵה	i	אֵי	û		
אֶה	ō				
אֵה	o				
אִה	ū				
אֵה	u				

## LIST OF ABBREVIATIONS

1	First Person
2	Second Person
3	Third Person
∅	Null Element
&	Conjunctive Coordinator
&P	Conjunction Phrase
¬	Negation
∨	Disjunction
∧	Conjunction
≡	“Is Identical To”
ACC	Accusative
ADJ	Adjective
AM	Active Memory
AP	Adjective Phrase
ART	Article
ASL	American Sign Language
BDB	Brown, F. Driver, S. R. and Briggs, C. A. 1977 <i>Enhanced Brown-Driver-Briggs Hebrew and English Lexicon</i> , electronic ed. Oxford: Clarendon Press.
BH	Biblical Hebrew
BHRG	van der Merwe, C. H. J. Naudé J. A. and Kroeze, J. H. 2017. <i>A Biblical Hebrew Reference Grammar</i> , electronic ed. 2nd ed. New York: Bloomsbury T&T Clark.
BPS	Bare Phrase Structure
C	Common
CC	Conjunct Constraint
COH	Cohortative
CP	Complementiser Phrase
CSC	Coordinate Structure Constraint
DOM	Differential Object Marking
DP	Determiner Phrase
DS	Dynamic Syntax
EC	Element Constraint
EX	Existential Particle
F	Feminine
FocP	Focus Phrase
ForceP	Force Phrase

GEN	Genitive
GKC	Gesenius, W. 1910. <i>Gesenius' Hebrew Grammar</i> , electronic ed. 2nd English ed. E. Kautzsch and A. E. Cowley eds. Oxford: Clarendon Press.
HALOT	Koehler, L. Baumgartner, W. Richardson, M. E. J. and Stamm, J. J. 1994. <i>The Hebrew and Aramaic Lexicon of the Old Testament</i> , electronic ed. Leiden: Brill.
IBHS	Waltke, B. K. and O'Connor, M. 1990. <i>An Introduction to Biblical Hebrew Syntax</i> , electronic ed. Winona Lake, IN: Eisenbrauns.
IMP	Imperative
INF	Infinitive
InflP	Inflectional Phrase
IP	Inclusiveness Principle
IPFV	Imperfective
JM	Joüon P. and Muraoka, T. 2006. <i>A Grammar of Biblical Hebrew</i> , electronic ed. 2nd ed. Rome: Pontificio Instituto Biblico.
JUSS	Jussive
LCD	Law of Continuous Dichotomy
LOC	Locational Constituent
LF	Logical Form
M	Masculine
N	Noun
NEG	Negator
NEGEX	Negative Existential Particle
NP	Noun Phrase
NRA	Nonrestrictive Apposition
OT	Optimality Theory
PF	Phonetic Form
PFV	Perfective
P	Plural
PEW	Prosodic End-Weight
PP	Prepositional Phrase
PTCP	Participle
QP	Quantification Phrase
RA	Restrictive Apposition
RC	Relative Clause
RPR	Relativized Parallelism Requirement

S	Singular
spec	Specifier
T	Tense
TAM	Tense, Aspect, and Mood
TH	Tiberian Hebrew
TopP	Topic Phrase
TP	Tense Phrase
vP	Little-v Phrase
VP	Verb Phrase
WCIPFV	Waw Consecutive Imperfective / Wayyiqtol
WCPFV	Waw Consecutive Perfective / Weqatal
WHS	Williams, R. J. 2007. <i>Williams' Hebrew Syntax</i> . 3rd ed. Revised and expanded by J. C. Beckman. Toronto: University of Toronto Press.
X'	A constituent that can be any non-maximal phrase
XP	A phrasal or clausal constituent
YP	A phrasal or clausal constituent

## CHAPTER 1: INTRODUCTION

### 1.1 Background

Coordination is perhaps the most pervasive grammatical feature in the Hebrew Bible. The most common coordinating conjunction, *waw*, occurs over 50,000 times and, according to one analysed corpus (Dempster 1985), *waw* introduces 99% of the sentences. Waltke and O'Connor remark, "So pervasive is *wə* that the discourse is largely organized around this single particle" (IBHS §39.1). The ubiquity of *waw*, however, has raised many issues for analysing coordination. There are four sets of issues in the Pentateuch regarding phrasal *waw* that this thesis addresses.

First is an issue of semantics. *Waw* is a prototypical coordinating conjunction, but it appears also to have other functions as a disjunctive (1), comitative (2), and explicative (3) marker. The question arises, what does *waw* mean, and does it have one or multiple functions?

- (1) וְלֹא־נָטָה לְלֶכֶת עַל־הַיְמִין וְעַל־הַשְּׂמֹאל מֵאַחֲרַי אַבְנֵר׃ (2 Sam 2:19)  
*wə-lō' nāṭā lā-leket 'al hay-yāmīn wə-'al has-śəmō'l*  
and-NEG turn.PFV.3MS to-walk.INF on ART-right and-on ART-left  
*mē-'aḥārē 'abnēr*  
from-after Abner

He did not turn by going to the right or (lit. *and*) to the left from behind Abner.

- (2) וַנִּתַּח אֹתוֹ לְנֹתְחָיו וְאֶת־רֹאשׁוֹ וְאֶת־פְּדִירוֹ (Lev 1:12)  
*wənittah 'ōt-ō lī-natāḥāy-w wə-'et rō's-ō wə-'et*  
chop.WCPFV.3MS ACC-3MS to-pieces-3MS and-ACC head-3MS and-ACC  
*pidr-ō*  
fat-3MS

"And he shall chop it into pieces with (lit. *and*) its head and its fat."

- (3) וַיִּקְבְּרוּהוּ בְרָמָה וּבְעִירוֹ (1 Sam 28:3)  
*wayyiqbərū-hū bā-rāmā ū-bə-'ir-ō*  
bury.WCIPFV.3MP-3MS in.ART-Ramah and-in-city-3MS  
They buried him in Ramah, that is (lit. *and*) in his city.

Second is an issue of distribution. In a list, *waw* may separate each element (4), precede every element (5), precede the last element only (6), occur intermittently in a longer list (7), or be omitted entirely (8).

- (4) שֵׁם וְחָם וְיָפֶֿתֿ (Gen 9:18)  
*šēm wə-ḥām wā-yāpēt*  
 Shem and-Ham and-Japheth  
 Shem and Ham and Japheth
- (5) וְאֵלֶּה בְּנֵי-צִבְעוֹן וְאִיָּה וְאַנָּה (Gen 36:24)  
*wə-’ēllē ḥənē sib’ôn wə-’ayyā wa-’ānā*  
 and-these sons.GEN Zibeon and-Aiah and-Anah  
 These are the sons of Zibeon: both (lit. *and*) Aiah and Anah.
- (6) שֵׁם חָם וְיָפֶֿתֿ (Gen 10:1)  
*šēm ḥām wā-yāpēt*  
 Shem Ham and-Japheth  
 Shem, Ham, and Japheth
- (7) מְעֹט צָרִי וּמְעֹט דְּבַשׁ וְנֶחֱמַת וְלֵט בְּטָנִים וְשִׁקְדִים: (Gen 43:11)  
*mə’at šōrī ū-mə’at dəbaš nəkō’t wā-lōt boṭnīm*  
 little.GEN balsam and-little.GEN honey resin and-myrrh pistachios  
*ū-šəqēdīm*  
 and-almonds  
 “a little balsam and a little honey, Ø resin and myrrh, Ø pistachios and almonds”
- (8) בְּקָר שְׁנַיִם אֵילִם חֲמִשָּׁה עֲתוּדִים חֲמִשָּׁה כְּבָשִׁים בְּנֵי-שְׁנַהֲחֻמָּשָׁה (Num 7:17)  
*bāqār šənayim ’ēlīm ḥāmiššā ’attūḏīm ḥāmiššā kəbāsīm bənē šānā*  
 cattle two rams five goats five sheep sons.GEN year  
*ḥāmiššā*  
 five  
 two oxen, Ø five rams, Ø five goats, Ø five one-year-old sheep

Here the question arises, what determines when *waw* occurs overtly in a list, and is there a different underlying syntactic structure behind any of these distribution patterns?

Third is an array of three syntactic issues directly related to *waw*. First, *waw* takes a *qamets* vowel in pretonic position, but not for every word with an initial accent (9).

- (9) זָרַע וְקָצִיר וְקָר וְחֹם וְקִיץ וְחֹרֶף וַיּוֹם וַלַּיְלָה (Gen 8:22)  
*zera' wə-qāšîr wə-qōr wā-ḥōm wə-qayis wā-ḥōrep̄ wə-yôm*  
 seed and-harvest and-cold and-heat and-summer and-winter and-day  
*wā-laylâ*  
 and-night  
 “seed and harvest and cold and heat and summer and winter and day and  
 night”

In (9), *waw* takes a *qamets* before some of the conjuncts that have an initial accent —“heat” (וְחֹם), “winter” (וְחֹרֶף), and “night” (וַלַּיְלָה)—but other conjuncts with an initial accent take the default schwa vowel—“cold” (וְקָר), “summer” (וְקִיץ), and “day” (וַיּוֹם).

Second, the conjuncts are not always contiguous. In (10), the verbal complements are split by both the verb (לָקְחוּ) and the adjunct PP (בְּיָדָם).

- (10) וּמִשְׁנֵה־כֶּסֶף לָקְחוּ בְּיָדָם וְאֶת־בְּנֵימִן (Gen 43:15)  
*û-mišnê kesep̄ lāqəḥû bə-yād-ām wə-’et binyāmin*  
 and-double.GEN silver take.PFV.3CP in-hand-3MP and-ACC Benjamin  
 Double the money they took in their hand, and Benjamin.

Third, convention says that only identical categories can be coordinated, but (11) appears to conjoin an NP (וְאֶת כָּל־הַלֶּבְנָה) to two previous PPs (מִסֹּלֶת הַמִּנְחָה וּמִשְׁמֵנָה).

- (11) וְהָרִים מִמֶּנּוּ בְּקִמְצוֹ מִסֹּלֶת הַמִּנְחָה וּמִשְׁמֵנָה וְאֶת כָּל־הַלֶּבְנָה אֲשֶׁר עַל־הַמִּנְחָה (Lev 6:8)  
*wəḥērîm mimme-nnû bə-qumš-ô mis-sōleṭ ham-minḥâ*  
 lift.WCPFV.3MS from-3MS in-handful-3MS from-flour-GEN ART-offering  
*û-miš-šamn-āh wə-’et kol hal-ləḇōnâ ’āšer ‘al ham-minḥâ*  
 and-from-oil-3FS and-ACC all-GEN ART-frankincense that on ART-offering  
 “And from it he shall take up a handful from the flour of the offering and from  
 its oil, and all of the frankincense that is on the offering.”

To summarise these last three examples, the question is: how does *waw* interact with prosody (9), linear order (10), and syntactic categories (11)?

Fourth is a pair of syntactic issues indirectly related to *waw*. First, a function word usually occurs before each conjunct, but sometimes it occurs only once before multiple

conjuncts. In (12), an object marker has scope over two conjuncts (וְאֶת־אִשְׁתּוֹ וְאֶת־הַתּוֹ וַיִּלְדוּ). And in (13), a preposition also has scope over two conjuncts (וּלְיָמִים וְשָׁנִים).

(12) וַיִּרְפָּא אֱלֹהִים אֶת־אֲבִימֶלֶךְ וְאֶת־אִשְׁתּוֹ וְאֶת־הַתּוֹ וַיִּלְדוּ (Gen 20:17)  
*wayyirpā' 'ēlōhîm 'et 'ăbîmelek wə-'et 'išt-ô*  
 heal.WCIPFV.3MS God ACC Abimelech and-ACC wife-3MS  
*wə-'amhōt-āyw wayyēlēdû*  
 and-maidservants-3MS give.birth.WCIPFV.3MP  
 God healed Abimelech, and his wife and his maidservants, and they gave birth.

(13) וְהָיוּ לְאֹתוֹת וּלְמוֹעֲדִים וּלְיָמִים וְשָׁנִים (Gen 1:14)  
*wəhāyû lə-'ōtōt û-lə-mô 'ădîm û-lə-yāmîm wə-šānîm*  
 be.WCIPFV.3CP to-signs and-to-appointed.times and-to-days and-years  
 “And let them be for signs and for appointed times and for days and years.”

Second, convention says that a compound subject should agree with a plural verb, but such a constituent often agrees with a singular verb (14).

(14) וַתְּדַבֵּר מִרְיָם וְאַהֲרֹן בְּמֹשֶׁה (Num 12:1)  
*wattəḏabbēr miryām wə-'ahārōn bə-mōšē*  
 speak.WCIPFV.3FS Miriam and-Aaron in-Moses  
 Miriam and Aaron spoke (sg) against Moses.

To summarise these last three examples, the question is: how does coordination interact with scope-taking elements (12)–(13) and verbal agreement (14)?

## 1.2 Research Problem

The previous section introduced four issues relating to phrasal *waw* from which three questions arose. Does *waw* have one function or multiple functions? What determines when *waw* occurs overtly? And how does *waw* interact with prosody, linear order, syntactic categories, scope-taking elements, and verbal agreement? This thesis will address these questions after developing a theoretical-syntax account of the structure of coordination.

Most studies of *waw* have been conducted at the clause level and are concerned primarily with semantics. But semantics-driven accounts cannot give explanatory adequacy to

the distribution of *waw*, as will be shown in chapter two. A complex model that gives priority to syntax will be able to yield new insights for explaining *waw*'s function in the many environments in which it occurs.

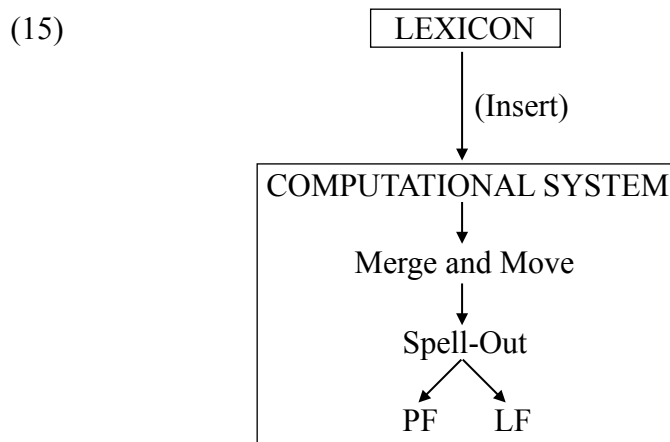
Thus, this thesis is fundamentally concerned with the syntactic structure of coordination. I assume that the same structure holds for both phrasal and clausal coordination, but I will apply this theoretical account only to phrasal coordination in BH (Biblical Hebrew). In order to understand the syntax of coordination, four questions must be answered. Is the structure hierarchical or flat? What are the functions of the conjuncts? Is the coordinator a head? And does the coordinator form an independent functional category? With a sound syntactic theory of coordination in hand, we will then be able to answer the first set of questions in §1.1 regarding the phrase-level distribution of *waw*.

### **1.3 Theoretical Framework**

The questions that were listed regarding the syntactic structure of coordination in §1.2 already assume a certain framework, namely, generative syntax. As my primary theoretical starting place for analysis, I adopt the assumptions of the Minimalist Program. According to Chomsky (1995), language consists of two components: the lexicon and the computational system. The lexicon is a mental list of all of the lexical items of a language along with their linguistic properties. The computational system generates language using three overt operations. It can Select an item from the lexicon, Merge it into the syntactic structure, and may subsequently Move it to another structural position before Spell-Out.

Moreover, there are two types of performance systems: the Articulatory-Perceptual (A-P) and the Conceptual-Intentional (C-I). The A-P interfaces with the computational system to produce the level of Phonetic Form (PF) after Spell-Out. The C-I interfaces with the

computational system to produce the level of Logical Form (LF). All of the components of the grammar are arranged according to the following schema in (15).<sup>1</sup>



PF describes the speech system of how language is pronounced, and LF describes the thought system of what language means.

Language is a complex and dynamic system (Larsen-Freeman and Cameron 2008), so generative syntax should not be the only perspective for analysing phrasal coordination. A complexity approach has already proved fruitful for studying many aspects of BH linguistics and philology: language change and diffusion (Naudé 2012), pedagogy for BH reading instruction (Miller-Naudé and Naudé 2014a), translation of sacred texts (Naudé and Miller-Naudé 2019), and a prosodic analysis of the *te'amim* (Pitcher 2020). Indeed, currently there seems to be “an international paradigm shift from a reductionist approach to language involving a single dimension or modality of reality (which characterised the modernist approach) to a complexity approach” (Naudé and Miller-Naudé 2018:28).

Thus, I approach BH language as a connected whole with the interacting levels of syntax, semantics, prosody, morphophonology, and discourse. I also seek to show how coordination compares with apposition and intersects with verbal agreement. Moreover, I

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<sup>1</sup> For more extensive introductions to the MP for Hebraists, see the descriptions in Naudé (1996:35–52), Lambrecht (2001:13–26), and Snyman (2004:39–72).

situate my analysis within cross-linguistic typology studies on coordination (Haspelmath 2007, Nevins and Weisser 2019) to show how BH “fits into the limited number of patterns exhibited among the world’s languages” (Naudé and Miller-Naudé 2018:28).

Finally, this study is situated, broadly speaking, within the framework of connectivity theory, which analyses *discourse*, a term “used to refer to the ongoing aspect of spoken or written verbal communication: how utterances or sentences are linked” (Renkema 2009:9). Renkema uses the term *connectivity* to encapsulate the complementary concepts of *cohesion* (“linking based on verbal elements in a discourse”) and *coherence* (“linking based on mental activities of a listener or reader”) (2009:10). Clauses are the basic building blocks of discourse, but this study will analyse coordination at the phrase level. Even so, connectivity theory is especially relevant in §8.3, which discusses the discourse affects on verbal agreement with conjoined subjects.

#### **1.4 Hypothesis**

In this thesis, I provide the following hypothesis in answer to the two sets of questions in §1.2. Regarding the four theoretical questions about coordination, I hypothesise first that the structure of coordination is hierarchical, second that the conjuncts form a complementation relationship, third that the coordinator is the head, and fourth that the coordinator does not project an independent functional category, but only the category of the initial conjunct.

Regarding the three applied questions about *waw*, I hypothesise first that *waw* maintains one syntactic function as a conjunctive coordinator. Second, in coordination examples with three or more conjuncts, I hypothesise that two different structures are possible: a multi-headed structure, which has a *waw* between each conjunct, and a multiple-specifier structure, which has a *waw* before the last conjunct only. Third, I hypothesise that

prosodic effects on *waw* reflect the hierarchical syntactic structure of coordination, that non-contiguous “conjuncts” are the result of ellipsis, that non-matching syntactic categories can be conjoined, that *waw* allows other elements to take wide or narrow scope over the conjuncts, and that a verb can agree with the compound subject or with a singular conjunct only.

## 1.5 Corpus and Research Method

The corpus for this study includes every occurrence of phrasal *waw* in the Pentateuch (approximately 2,714 tokens). For two syntactic phenomena—*waw* plus *qamets* (§4.3) and conjoined singular subjects (§8.2)—the initial corpus did not yield enough data to formulate an analysis, so the corpus was expanded to include Joshua–2 Kings. The results of the data expansion were more promising in each instance.

The initial plan was to conduct a comprehensive study of *waw* at both the phrase level and the clause level. However, phrasal coordination itself proved to be complex enough to warrant a full-length study. I chose to study phrasal coordination over clausal coordination because it is more basic, at least from the perspective of a bottom-up computational system, which merges words to form a phrase, and merges phrases to form a clause. Moreover, phrasal coordination is less complex: “The possibilities for combining sentences are infinitely more varied than those for combining constituents in a sentence” (Renkema 2009:2). Thus, a strong grasp of phrasal coordination can provide a solid foundation for later addressing the more complex questions that arise from studying clausal coordination.

The Pentateuch provided an adequate corpus for conducting a synchronic study of phrasal coordination in BH. The result, however, is that there was no room in this study to include the representative books from Late Biblical Hebrew to investigate diachronic change. Regarding the importance of diachronic study, Naudé articulates well two core assumptions

that I also share: “the fact that a language inevitably changes and diffuses over time ... [and] that a language inherently displays variation” (2012:62). The second assumption is especially apropos, as there is much variation within phrasal coordination in the Pentateuch. This is carefully recorded, and can become the basis of doing a diachronic study of *waw* to judge some of the claims of language change in BH coordination that have been made already.<sup>2</sup>

What complicates a linguistic account of BH variation is the question of errors in the Hebrew text. When I encountered difficult readings in the text, I consulted the BHS textual apparatus. Variant readings in ancient translations are more significant from a philological perspective, but well-formedness is the primary concern from a linguistic perspective. Yet, without acceptability judgments from native speakers, some uncertainty remains whether difficult readings are fully grammatical, completely unacceptable, or somewhere in between.

The data for this study were generated in Logos using the BHS text. With every instance of *waw* highlighted, I read through the Pentateuch and catalogued every instance of *waw* at the phrase level, noting morphophonemic features of *waw*, as well as syntactic and semantic features of the phrase in which it occurred. By simultaneously reading the literature on *waw* and the theoretical literature on coordination, as well as collecting *waw*-data from the corpus, I formulated the categories of significant data to be explained. Once these categories were finalised, I re-read the corpus and placed all of the data into their appropriate categories.

## **1.6 Purpose of the Research**

This study seeks to explain the distribution of *waw* at the phrase level, which requires an understanding of syntactic theory and of coordination from a crosslinguistic perspective.

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<sup>2</sup> Rooker (1990:115–116) reports a tendency in Late Biblical Hebrew to drop the repeated prepositions and object markers and only write once what was written twice (or more) in Early Biblical Hebrew (cf. Polak 2013a). Also, DeRouchie (forthcoming) suggests in a brief comparison of Kings and Chronicles that Chronicles tends to use a *waw* before all items in a list in the instances when Kings places a *waw* before the last item only.

Moreover, because coordination is so pervasive in the Pentateuch, it requires a grasp of many areas of BH syntax that intersect with phrasal coordination: prosody, pronoun binding, information structure, word order, null elements, ellipsis, differential object marking, prepositions, negation, markedness, apposition, subordination, and verbal agreement. A better understanding of phrasal coordination will in turn shed light on many of these other concepts, as well as provide a more firm foundation for studying clausal coordination in BH. This thesis makes a contribution within both the fields of BH and comparative Semitics, as well as the broader field of linguistics by providing a linguistically-informed analysis of phrasal coordination in one Northwest Semitic language that has not previously been described.

### **1.7 Organisation of the Study**

Informally, there are three parts to this study. Part one reviews the relevant literature. In chapter 2, I survey the previous research on *waw* in BH. In chapter 3, I interact with the linguistics literature and argue that the coordination structure is hierarchical with the conjuncts functioning as specifier and complement and the coordinator as a defective head.

Part two applies this theoretical framework to phrasal coordination in the Pentateuch. In chapter 4, I show the results of coordination being a hierarchical, rather than a flat, structure. In chapter 5, I demonstrate the results of the conjuncts functioning as specifier and complement. And in chapter 6, I establish the results of *waw* being a defective head.

Part three explores the connection between coordination and other concepts. In chapter 7, I discuss the relationship between coordination and apposition. And in chapter 8, I address the intersection between phrasal coordination and verbal agreement.

Chapter 9 gives the conclusions. I summarise the contributions of this thesis and propose areas for further investigation.

## CHAPTER 2: PREVIOUS RESEARCH ON COORDINATION IN BIBLICAL HEBREW

### 2.1 Introduction

As noted in the previous chapter, coordination is likely the most pervasive grammatical feature in the Hebrew Bible. Surprisingly, then, there has been no previous study solely devoted to a theoretical account of coordination in BH. This thesis is a *syntactic* analysis of *phrasal* coordination, while much of what has been written on *waw* consists of *semantic* observations of *clausal* coordination. This chapter will first survey what has been written from this alternative approach (§2.2) before evaluating the more relevant BH literature on the structure and function of coordination (§2.3) and the overtness of the coordinator and how to distinguish null coordination and apposition (§2.4).

### 2.2 An Alternative Approach to *Waw*

Almost all of the previous research on *waw* has been devoted to describing the semantics of coordination. While formally outside the scope of this study, this section provides justification for the research problem of this thesis by relating what others have noted concerning the clause-level use of *waw* (§2.2.1) and the subsequent multitude of “meanings” that have been proposed for *waw* (§2.2.2). The need for a syntactic account of phrasal coordination will soon become apparent.

#### 2.2.1 Clause-Level Considerations of *Waw*

Clausal *waw* provides plenty of interesting data to preoccupy Hebraists. Perhaps the most jarring aspect of *waw* is that it often appears to be introducing a dependent clause. While I do

not endorse all of the following categorisation, the grammars have reported that *waw* can introduce a purpose/result clause (1),<sup>1</sup> a circumstantial clause (2),<sup>2</sup> a motivational clause (3),<sup>3</sup> a comparison clause (4),<sup>4</sup> an explanatory clause (5),<sup>5</sup> an object clause (6)<sup>6</sup> and, usually as part of a *weqatal* verb, an apodosis (7).<sup>7</sup>

- (1) צוֹ אֶת־בְּנֵי יִשְׂרָאֵל וְיִקְחוּ אֵלֶיךָ שֶׁמֶן (Lev 24:2)  
*šaw et banē yiśrā'el wə-yiqḥū 'ēlê-kā šemen*  
 command.IMP.2MS ACC sons-GEN Israel and-take.IPFV.3MP to-2MS oil  
 “Command the children of Israel so that (lit. *and*) they may bring you oil.”

- (2) וַיָּבֵא הַבַּיִתָּה לַעֲשׂוֹת מְלֶאכֶתוֹ וְאִין אִישׁ מֵאַנְשֵׁי הַבַּיִת שָׁם בַּבַּיִת׃  
 (Gen 39:11)  
*wayyābō' hab-bayət-ā la- 'āsōt mēla'kt-ō wə- 'ēn iš*  
 enter.WCIPFV.3MS ART-house-LOC to-do.INF work-3MS and-NEGEX man  
*mē- 'anšē hab-bayit šām bab-bāyit*  
 from-men.GEN ART-house there in.ART-house  
 And he went into the house to do his work when (lit. *and*) no man of the men of the house was there in the house.

- (3) וְגַר לֹא תִלְחָץ וְאַתֶּם יִדְעֶתֶם אֶת־נַפְשׁ הַגֵּר (Exod 23:9)  
*wə-gēr lō' tilḥāš wə- 'attem yaḏa 'tem et*  
 and-sojourner NEG oppress.IPFV.2MS and-you.NOM.MP know.PFV.2MP ACC  
*nepeš hag-gēr*  
 soul.GEN ART-sojourner  
 “A sojourner you must not oppress, because (lit. *and*) you know the life of a sojourner.”

<sup>1</sup> E.g. GKC §165a; IBHS §38.3; JM §168, §177j–k; WHS §518–519, §525; BHRG §21.5, §40.23.4.2.

<sup>2</sup> E.g. GKC §141e, §142e, §156; IBHS §39.2.3; JM §159d–e; WHS §494–495; BHRG §40.23.4.2.

<sup>3</sup> E.g. GKC §158a; IBHS §39.2.3b; JM §170c; BHRG §40.23.4.2.

<sup>4</sup> E.g. GKC §161a; IBHS §39.2.3b; JM §174h; WHS §437; BHRG §40.23.4.2.

<sup>5</sup> E.g. GKC §154; IBHS §39.2.1b, §39.2.4; JM §118j, §119i; BHRG §40.23.4.2; Brongers 1978; Baker 1980; Mastin 1984; Wilton 1994; Hornkohl 2009; Thiessen 2009.

<sup>6</sup> E.g. GKC §120d–e; JM §177h–k.

<sup>7</sup> E.g. GKC §112ff–oo; IBHS §23.3.1.1; JM §119ea, 176; WHS §511; BHRG §21.3.3.

- (4) הַדְּלֵת תִּסּוּב עַל-צִירָהּ וְעָצֵל עַל-מִטָּתָּהּ: (Prov 26:14)  
*had-deleṭ tissôḅ 'al šîr-āh wə- 'āṣēl 'al miṭṭāṭ-ô*  
 ART-door turn.IPFV.3FS on pivot-3FS and-sluggard on bed-3MS  
 The door turns on its pivot, as (lit. *and*) a sluggard on his bed.
- (5) כִּי-גֹי אֶבֶד עֲצוֹת הַמָּה וְאִין בְּהֵם תְּבוּנָה: (Deut 32:28)  
*kî ḡôy 'ôḅad 'ēṣôṭ hēm̄mā wə- 'ên*  
 because nation perish.PTCP.MS.GEN council they.NOM.MP and-NEGEX  
*bā-hem təḅûnâ*  
 in-3MP understanding  
 “because they are a nation void of council—that is (lit. *and*), there is no understanding among them.”
- (6) וְאִם-יִדְעַתָּ וְיִשְׁבֹּם אֲנָשֵׁי-חַיִּל (Gen 47:6)  
*wə- 'im yāda tā wə-yeš bā-m 'anšê ḥayil*  
 and-if know.PFV.2MS and-EX in-3MP men.GEN valor  
 “And if you know that (lit. *and*) there are men of valor among them.”
- (7) בְּבֹאָה רַגְלֶיךָ הָעִירָה וּמַת הַיָּלֵד: (1 Kgs 14:12)  
*bə-ḥō 'â raḡlay-ik hā- 'îr-â ûmēṭ hay-yāled*  
 in-enter.INF feet-2FS ART-city-LOC die.WCPFV.3MS ART-boy  
 “When your feet enter the city, then (lit. *and*) the boy will die.”

The traditional approach has been to ascribe different functions to clausal *waw* based on the content of the coordinated clauses. The situation complicates any discussion regarding BH coordination, as Holmstedt explains: “Fundamentally confusing to any account of [*waw* is that the conjunction is associated] with every conceivable type of subordinate clause” (2013:222). This obviously raises the issue of what distinguishes coordination from subordination, which will be addressed in §2.3.

Polak (2013b) attributes the high frequency of coordinate clauses to a substructure of orality in the text, since such style also occurs in natural spoken language. Others see a heavy reliance on coordination as a hallmark of semitic style:

The semitic sentence is a succession of short sentences linked together by simple coordinate conjunctions. The principle mark, therefore of Hebrew and especially of classical Hebrew style is that it is what the Greeks called λέξις εἰρομένη “speech strung together” like a row of beads (Driver 1925:119).

Others have interpreted *waw* as a device for shaping a text. Andersen (1974:28) uses conjunctions to distinguish between appositive, coordinate, and subordinate sentences. And, building upon Dempster's (1985) work, DeRouchie views *waw* and asyndeton as the fundamental markers of how large text blocks are structured (2007, 2013a, 2013b, forthcoming). *Waw* links phrases and clauses of equal syntactic value, and asyndeton often signals a disjunction in the text.

A final point of discussion has been how, or even, whether, to translate *waw*.<sup>8</sup> As DeRouchie (forthcoming) notes, it is very difficult to translate from a "language [that] is paratactic-dominant like Hebrew" into a "language [that] is hypotactic-dominant like Greek or English." Opposite approaches are represented by commentaries on Genesis. While Alter (1998:xx) chooses to represent "every 'and' and every element of parataxis" in his translation, Speiser (1964:lxvii) holds the contention, "At the beginning of a sentence, and particularly of a paragraph, section, or a book, the translation equivalent of *waw* is zero."

Translation is of course important, but it is in many ways a symptom of the larger issues of semantics and pragmatics. Indeed, it is a cautionary tale to be concerned primarily with whether/how to translate *waw*. Thinking only of how to render *waw* in another language can skew one's perception of its function in BH. Consider the following statement by Fee and Stuart in their popular book on hermeneutics: "It is now recognised by Hebrew grammarians that 'and' at the beginning of a sentence is virtually the equivalent of the use of capitalization at the beginning of English sentences" (2014:53). It is unclear which grammarians they have in mind, but we will be sure to misunderstand the function of *waw* if our first impulse is to question how to translate it whenever we see it.

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<sup>8</sup> I first encountered the references in these next two paragraphs in DeRouchie (forthcoming).

### 2.2.2 Proposed “Meanings” of *Waw*

Many in the past have multiplied meanings and usages for *waw*. HALOT (1994:257–259) has thirty distinct entries for *waw*. Similarly, Clines (1993:596–598) lists at least fifteen different meanings of *waw*, which include the following: “and,” “after,” “or,” “with,” “but,” “that is,” “so,” “when,” “because,” “so that,” “likewise,” “then,” “if,” and “now.” If one tallies all of the ways that contextualised uses of *waw* can legitimately be translated into English and names each of those a different “meaning” of *waw*, the list from Clines would grow much longer still. But this is no way to gain an understanding of how *waw* is functioning in BH.

The standard grammars have proposed some strange usages of *waw*. Joüon and Muraoka say that *waw* is used on occasion simply “to indicate the jussive more clearly” (JM §177l). Elsewhere, they claim that *waw* quite frequently “expresses a nuance of emotion rather than a logical link,” and that the “*waw* of emotion is particularly frequent in questions” (JM §177m). Similarly, Williams proposes an idiomatic category of “sarcastic  $\text{w}^{\text{a}}$ ” (WHS §439). Finally, it has been said that *waw* can be “used to express emphasis” (GKC §154a, n. 1), or that it sometimes has “a nuance of affirmation” (JM §177n). The first of these purported uses of *waw* is syntactic, but the rest would more accurately fall under the study of pragmatics. Nevertheless, the legitimacy of each one of these usages is very doubtful.

Steiner (2000) traces how *waw* has been treated as a polysemous connective since at least the Middle Ages. Over the centuries, the trend has fluctuated between what he calls a “meaning-maximalism” and a “meaning-minimalism.” He then provides a needed corrective to this most recent trend of meaning-maximalism by addressing the proposed meanings of “but,” “while,” “or,” “then,” “that is,” and “and.” In essence, Steiner’s argument in each case is the following: “Much of the ambiguity that has been attributed to  $\text{w}^{\text{a}}$  actually resides

elsewhere in the sentence” (2000:256). Another way to say this is that many of the meanings assigned to *waw* “merely reflect the inherent semantic relations (e.g., temporal succession, purpose, cause, etc.) that exist between adjacent propositions” (Westbury 2017:§2.2).

Steiner concludes his study by saying that *waw* does not have multiple different meanings, but there are two categories of *waw*. One is meaningless as “a semantically empty all-purpose connector,” which he attributes to when *waw* occurs in cases of apposition or *casus pendens* (2000:265). Of the meaningful instances, he says that it maintains the meaning of the logical connective “&,” which he describes as “ $p \text{ wě-} q$  be true whenever  $p$  is true and  $q$  is true” (2000:267). Thus, *waw* functions as a prototypical coordinating conjunction.

### 2.2.3 Summary

Much of the literature on *waw* has been devoted to the semantics of clausal coordination in BH. Since Steiner (2000), the trend has been to view *waw* within a framework of meaning-minimalism (§2.2.2). Nevertheless, while fewer Hebraists would be inclined to attribute multiple meanings to *waw*, many still describe multiple uses of *waw* (e.g. Niccacci 2013). This has been compounded by the fact that *waw* seems to introduce every type of subordinate clause imaginable (§2.2.1). But instead of focusing on whether and how to translate the coordinator, it would be better to ascertain “the status and function of the coordinator” (Holmstedt 2013:222). A necessary part of this enterprise will be to determine the syntactic structure of coordination.

## 2.3 Coordination and Subordination

All the reported instances of *waw* introducing a dependent clause (§2.2.1) raise the question of what exactly is the distinction between coordination and subordination. Representative definitions are as follows: “A co-ordinating conjunction joins grammatically equivalent items

such as nouns or independent phrases.... A subordinating conjunction joins a subordinate sentence (i.e. a sentence that does not stand independently) to the main sentence” (BHRG §11.5.1–2). Another way to put it is that coordination links syntactically equal entities with no hierarchy,<sup>9</sup> while subordination creates a hierarchy in which one clause controls the other (IBHS §38.1a, §39.2.1c; BHRG §40.1.2; Wintner and Ornan 1995).

If coordination truly entails a lack of hierarchy, it is surprising that all examples in §2.2.1 display semantic asymmetry: the order of the conjuncts cannot be switched without altering the meaning of each sentence. In fact, it is not exactly clear how coordination is distinct from subordination, as van der Merwe, Naudé, and Kroeze observe: “In Biblical Hebrew subordinate clauses often have the same syntactic structure as coordinating clauses. It is thus sometimes difficult to distinguish between coordinating conjunctions and subordinating conjunctions” (BHRG §40.1.2). They do identify *waw* as a “fully coordinating conjunction,” but how does this square with the reported subordinate uses of *waw* in §2.2.1?

### 2.3.1 Asymmetric Coordination

Does *waw* always signal coordination? This question has proved difficult to answer, because it depends on what one means by “coordination.” Doron seems to answer the question in the affirmative: “In Biblical Hebrew ... ‘and’ never introduces an embedded clause” (2000:243). Similarly, Holmstedt (2013:222) says that *waw* “never formally signals subordination,” but Holmstedt and Screnock identify several examples with *waw* “where no coordination is involved” (2015:103). Miller presents yet another viewpoint: “*Waw* may join clauses in a paratactic relationship where the clauses are coordinated at the same level of syntactic structure, or in a hypotactic relationship, where clauses are not at the same level of syntactic

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<sup>9</sup> While the denial of hierarchy is *implicit* in a number of definitions, Holmstedt makes it *explicit*: “There is no syntactic or semantic hierarchical relationship between coordinated clauses” (2013:220).

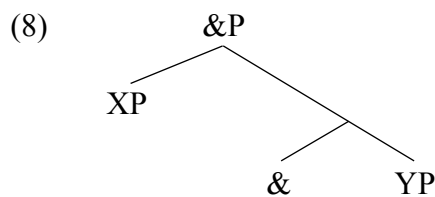
structure” (2007b:43). Finally, Polak (2013a) proposes the term *co-subordination* to describe circumstantial clauses introduced by *waw*. We see already that there are several contrasting viewpoints on whether *waw* always signals coordination.

It is difficult to strike the balance in describing what *waw* is doing in terms of coordination and subordination. This often leads to messy descriptions of an elusive middle ground. Arnold and Choi describe *waw* as “imprecise,” which means that the difference between coordination and subordination “is often interpretive,” and “subordinate clauses are frequently unmarked” (2003:§4.3; cf. Arnold 2013). Waltke and O’Connor state that *waw* “is a simple conjunction” that does not indicate “the hierarchical relation between [clauses]”—thus, subordination by *waw* is said to be a logical, not a syntactic, relationship (IBHS §39.2.1c). Elsewhere, they say that “the text may skew the unexpressed semantic system; for example, the conjunction ו... may conceal the logically subordinate relationship of the clause which [it] introduce[s]” (IBHS §38.1h). Similarly, Joüon and Muraoka contrast the formal and functional roles of *waw*, saying that *waw* is formally a coordinating conjunction, but functionally it often indicates a subordinate clause (JM §159a). In all of these examples, Hebraists seem to be saying that the perceived syntax and semantics of coordination are at odds with one another.

What seems to be clogging the interpretive system is an assumption that coordination is symmetric while subordination is asymmetric. In fact, Azar writes that syntactic symmetry is a necessity: “The elements which compose the coordinate phrase must be of the same category” (1972:34). But not everyone equates coordination with symmetry. Miller is a rare Hebrew scholar who has a category for asymmetric coordination: “Not all coordination involves identical syntagms and such instances have been much discussed in the linguistic

literature” (1999:166, n. 6). While it may be much discussed in the linguistics literature, asymmetric coordination has not received adequate treatment in the BH literature.

Within the field, Cowper and DeCaen (2017) are perhaps the only ones who develop an explicit syntactic account for asymmetric coordination in BH. Within their model, they assume that the conjunction heads an independent functional category (&P), and that the coordinate structure is fundamentally asymmetric, as in (8).



They use this asymmetric coordinate structure to account for cases of *casus pendens*, conditional statements, and consecutive clauses. The specifier in [XP] functions as a generalised protasis, and the relation with the complement in [YP] can be temporal, causal, or epexegetical (2017:24–29).

Cowper and DeCaen provide a way forward in accounting for many of the so-called subordinate uses of *waw*, but questions remain. Isaksson (2013) notes that *subordination* is a disputed term, leading some to avoid using it altogether. So it appears that terms like *coordination* and *subordination* cannot simply be taken for granted. How should these concepts be defined? What exactly distinguishes between the two? And how can we account for both the symmetric and asymmetric properties of coordination?

### 2.3.2 Syntactic Function of *Waw*

While some of the following information may be implicitly understood from the previous section, it is necessary to state explicitly the full spectrum of viewpoints within the field regarding the syntactic function of *waw*. The views are split between formal and non-formal

accounts. As for the latter category, we have already encountered the view that the role of *waw* is to conjoin phrases or clauses on the same level (BHRG §31; IBHS §39.2.1).

Another non-formal view is that *waw* is a marked generic connective, as opposed to asyndeton. Two authors in particular champion this view. As Westbury puts it:

¶ represents a marked choice to explicitly signal that two units are necessarily related, whereas with asyndeton, a tight relation may or may not exist. Asyndeton is unmarked. In other words, it represents a choice by the author *not* to explicitly signal that a coherence relationship exists between two units (2017:§2.3.1).

DeRouchie (forthcoming) similarly writes, “*Waw* marks that a clause bears some undefined semantic relationship with a preceding text unit, whereas asyndeton supplies the unmarked option, not clarifying whether coordination exists between adjacent material.”<sup>10</sup> These authors are heavily influenced by Steiner (2000), and are primarily concerned with the semantics and pragmatics of how *waw* is used in discourse.

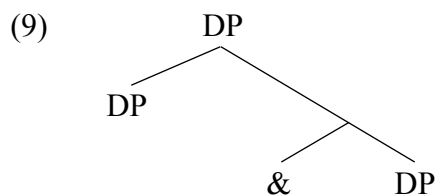
Similarly, Holmstedt shows great affinity to Steiner (2000), but gives a formal account of *waw*. He describes *waw* as “a front-edge phrase and clause marker, whose semantic value can only be determined after the relationship of the preceding and following phrase or clause is contextually determined” (Holmstedt 2013:222). His structural account is as follows: “When present, the ¶ functions syntactically to signal the left edge of a phrase; in contrast, when the ¶ is absent, any phrasal edge must be determined by other linguistic cues” (Holmstedt 2014:143). In short, the semantic value of *waw* is always contextually determined, and the syntactic function of *waw* is simply to mark the left edge of a phrase or clause. Holmstedt usually shies away from employing the language of coordination/subordination when discussing the status and function of *waw*.

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<sup>10</sup> Although his description of these phenomena has changed over time, DeRouchie has maintained that *waw* links phrases and clauses of equal syntactic value, while asyndeton signals an interruption, either as a fresh beginning or as support by restatement or distinct statement (DeRouchie 2007:107–120; 2017:103–107). He also has produced several examples of how he views *waw* and asyndeton to be the fundamental markers of how large text blocks are structured (DeRouchie 2007:217–267; 2013a; 2013b; 2018:9–16).

As we have already seen, Cowper and DeCaen (2017) do not shy away from employing the terminology of coordination. In fact, their view is that *waw* is the head of a binary-branching Conjunction Phrase (&P), in which the first conjunct is specifier and the second is the complement. The &P is positioned above ForceP—thus, outside the clause—and its specifier can host virtually any kind of constituent, which functions as a generalised protasis. By applying this asymmetric coordinate structure to *casus pendens*, conditional statements, and consecutive clauses, they give an account for cases that Holmstedt and Srenock say, “The constituent preceded by  $\neg 1$  is not conjoined to another constituent, and as such there is no coordination” (2015:103).

But not all asymmetric accounts of coordination are presented in equal terms. Doron (2000:253) also takes the conjunction as the head, but she considers the conjunction to lack formal features, so the category of the phrase is projected from the conjuncts, as in (9).



One of the advantages of this account is that it explains, as van der Merwe, Naudé, and Kroeze report, that a Hebrew coordinate noun phrase “can fulfill any syntactic function within a clause, e.g., subject, direct object, indirect object, adjunct, copulative predicate, etc” (BHRG §31.2). The reason a coordinate complex phrase can fulfill any function of a simplex phrase would be that it gets its category from the coordinated elements.

Doron advances yet another view on *waw*, that it functions as a complementiser to introduce a main clause (2000:243–244). She believes that in verb-initial clauses, *waw* is a clitic that lowers onto the verb. She does not state this explicitly, but her two different descriptions of the function of *waw* seem to necessitate two separate functions: for the phrase

level and the clause level. The justification she provides for the complementiser view at the clause level is that *waw* is in complementary distribution with other complementisers such as וְ, וַי, and וַ. This account of *wayyiqtol* is far from uncontroversial. In response, Holmstedt prefers to view the *waw* still functioning as a conjunction, and that the complementiser is the “phonologically underspecified” gemination in the *wayyiqtol* verb (Holmstedt 2009:118).

One final view is that *waw* does not always function as a coordinating conjunction on the syntactic level, but can be a discourse marker on the macrostructural level. One study looks at three different constructions in which *waw* introduces a direct quotation. The *waw* functions either to mark dispreferred speech, link two noncontiguous speeches of the same speaker, or highlight a topic change (Miller 1999). Another study looks at the ten *toledot* formulae in Genesis and argues that there is a formal hierarchy of the discourse units based on whether they are preceded by a *waw* (DeRouchie 2013b). Both of these studies suggest that more than syntax is driving why *waw* occurs in certain environments.

### 2.3.3 Summary

This section has shown an extraordinary amount of variation across the field in describing coordination. Almost no one develops a formal account for the syntactic structure of coordination, however. Most resort to describing the semantics of the propositional relationships that many coordination statements express. Semantics-driven accounts cannot give explanatory adequacy to the distribution of *waw*. A complex model that gives priority to syntax will be able to yield new insights for explaining why *waw* occurs in certain environments and for determining what its function is in those positions.

## 2.4 Syndeton and Asyndeton

It is a puzzle to try to understand why a conjunction does (syndeton) or does not (asyndeton) appear at the front of a phrase or clause. Here we will look at what asyndeton may indicate and if there are any constraints on where it may occur.

### 2.4.1 Null Coordination

Section 1.1 presented five different patterns of how *waw* can occur in a list of coordinated elements. From that data it is clear that coordination can occur without an overt coordinator. Null coordination does not occur only in a list of nouns, however. Miller (2007b) notes that cross-linguistically verb gapping can only occur between coordinate clauses. In her syntactic analysis of matching poetic lines in Isaiah, she documents 123 examples of verb gapping, but *waw* is used as an overt coordinator only 69% of the time. This means that the other 31% of examples are cases of null coordination. There is also the well-documented construction of null coordination between paired imperatives, wherein the first usually denotes physical movement (JM §177e–f, Fassberg 2006).

Holmstedt (2014:143) provides the following three categories of reasons why *waw* may occur overtly: morphosyntax (e.g. *wayyiqtol*), information processing (e.g. NPs in a list), and discourse pragmatics (e.g. speech-initial *waw*). Whether a *waw* surfaces in a coordinate structure seems to be influenced in part by whether it occurs at the phrase level or the clause level. DeRouchie (forthcoming) says that asyndeton often functions like a serial-comma coordinator at the phrase level, but this does not say much about the syntax of coordination. Andersen and Forbes say that there are three different structures of conjoined phrases: “union phrases (‘Shem and Ham and Yapeth’), mixed lists (‘Shem, Ham, and Yapeth’), and juxtaposed lists (‘Shem, Ham, Japeth’)” (2012:63). A *union phrase* has a conjunction between

each element, a *mixed list* “deletes some (but not all) of the conjunctions” (2012:57), and a *juxtaposed list* deletes all of the conjunctions.

In an article laying out a descriptive grammar of the noun phrase (NP) in the War Scroll, Holmstedt and Screnock claim there are just two different coordinate structures possible in an NP list of three or more elements: (a) *waw* between each constituent and (b) *waw* before the last constituent only (2015:104). They give (10) as an example of a mixture of the two structures, wherein (b) is the outer coordination strategy that joins the bracketed pairs together, and (a) is the embedded strategy that holds within each pair of brackets.

- (10) לְשָׁלוֹם וּבְרָכָה, כְּבוֹד וּשְׂמֵחָה, וְאוֹרֵךְ יָמִים (1QM 1:9)  
*l-šlwm w-brkh kbwd w-šmḥh w-’wrk ymym*  
 for-peace and-blessing glory and-gladness and-length.GEN days  
 for ‘peace and blessing, glory and gladness, and long life,

Null coordination before כְּבוֹד creates a mild disjunction that separates the two pairs of nouns.

It remains to be seen if this effect could be achieved with an overt *waw*.

Not much is written about why overt rather than null coordination would be employed at the clause level. In her study of verb gapping in matching poetic lines that was mentioned briefly above, Miller argues that *waw* is a structure-indicating device that aids the reader in identifying the missing predication:

Recovery minimally involves mentally aligning the constituents of the two conjuncts to determine what is ‘missing’. Alignment of the two conjuncts, in turn, requires knowing where one conjunct ends and the other begins.... When *waw* introduces the second line, the hearer (or reader) receives assistance in identifying the beginning of the second conjunct.... *Waw* almost always joins the two halves of a bicolon when the syntactic functions of the non-verbal constituents are not overtly marked.... By contrast, when the non-verbal constituents are clearly distinguished by other syntactic means, such as a preposition or the definite object marker, *waw* may be omitted (Miller 2007b:52).

Miller cautions against labeling the *waw* as “intensive” or “emphatic,” and she maintains that *waw* signals coordination between parallel lines (contra Brongers 1978).

## 2.4.2 Apposition

While asyndeton can be null coordination, it is often a sign of explication. This is typically called apposition, and is often defined as two juxtaposed elements that have the same referent with the second qualifying or defining the first (BHRG §29; GKC §131; IBHS §12). Joüon and Muraoka list thirteen different semantic types of appositional relationships (JM §131).

Many Hebraists claim that *waw* can introduce an appositive. This is traditionally called the explicative or exegetical use of *waw*, and simply according to journal articles devoted to this topic (Brongers 1978, Baker 1980, 2013, Mastin 1984, Wilton 1994, Hornkohl 2009, Thiessen 2009), there are at least 70 such examples in the Hebrew Bible.<sup>11</sup> Baker (1980) reports two Aramaic examples (Dan 4:10; 6:29), and claims that it is common in Ugaritic, Akkadian, and in the Septuagint. The function of the *waw* has not been well-understood, however, as some have said that the *waw* “marks a more precise definition” (Baker 1980:132), or that it “emphasises or paraphrases the previous clause” (Wilton 1984:125). It is doubtful that such functions should be attributed to *waw* itself.

So-called “explicative *waw*” may signal a difference between how English and Hebrew portrays coordination. Miller notes that coordinated nouns in English must “be construed as a disjoint set,” while in Hebrew they may be “co-referential” (2007b:48). This fact alone suggests that *waw* should not always be translated as “and,” but it does little to clarify how it is functioning in Hebrew. Why is it that co-referential constituents can be coordinated, and what are the constraints on when the coordinator may surface?

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<sup>11</sup> Gen 1:14; 4:4; 13:8; Exod 24:12; 25:12; 27:14; Lev 2:13; 14:9; Num 27:21; Deut 32:28, 30, 36; 33:23; Josh 2:1; Judg 6:25; 7:5, 22; 17:3; 1 Sam 17:40; 28:3; 2 Sam 3:29; 7:11; 14:6, 14; 20:14; 1 Kgs 8:9, 36; 14:9; Isa 17:8; 32:7; 42:12; 59:9, 20; 66:2; Jer 17:10; 45:4; 46:25, 26; Ezek 3:15; Amos 3:11; 4:10; 5:20; Zech 9:9; Mal 1:11; 3:1; Ps 74:11; 79:13; 85:9; 89:38; 100:3; 109:20; Job 19:24; 34:35; Prov 3:12; 30:16; Lam 3:26; Dan 1:3; 4:10; 6:29; 8:10; Ezra 6:9, 21; 8:18; Neh 1:10; 8:13; 10:29; 1 Chron 5:26; 21:12; 28:21; 2 Chron 29:27.

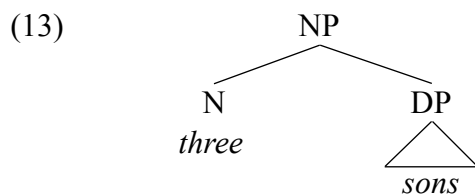
Holmstedt and Jones (2017) seek to provide a more robust account of apposition by analysing three pairs of contrast: full vs. partial, strict vs. weak, and restrictive vs. nonrestrictive. They refer to the first constituent as the *anchor*, and the second as the *appositive*. The most significant of the three contrasts is that of restrictive apposition (RA), which occurs in (11), and nonrestrictive apposition (NRA), which occurs in (12).

(11) שְׁלֹשָׁה בָּנִים “three, sons” (Gen 6:10)

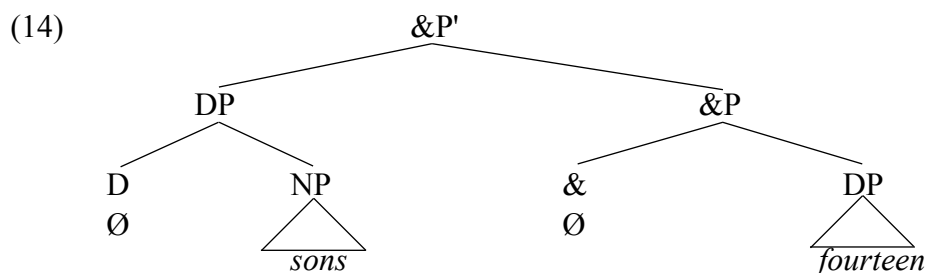
(12) בָּנִים אַרְבָּעָה עָשָׂר “sons, fourteen” (1 Chron 25:5)

In RA, the appositive restricts the identification of the anchor (11); in NRA, the appositive can be removed without affecting the identification of the reference (12); instead, “it provides an additional or alternative description of the anchor” (Holmstedt 2018:8).

Holmstedt and Jones propose a corresponding structural difference between the two types of apposition. For RA, the appositive is within the scope of the anchor, illustrated in (13) (2017:28).



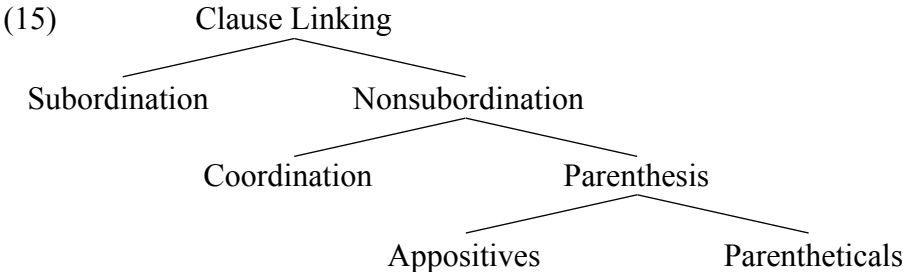
NRA, on the other hand, is a type of *specifying coordination*, as the appositive forms a coordinate phrase (&P) with the anchor, illustrated in (14) (2017:29).



In support of the coordination structure of (14), they point out that the appositive has a predicative or attributive use, may be extraposed, and may be fronted by *waw* (2017:40–49).

Polak (2013a) refers to conjoined coreferential phrases as “pseudo-coordination.” In this case, how exactly is “true coordination” distinct from apposition? One answer is that coordination conjoins distinct entities, while apposition conjoins co-referential elements (Andersen and Forbes 2012, Livnat 2013, Polak 2013a). Nevertheless, this does not really seem to address the issue of creating a third category (pseudo-coordination or specifying coordination) and knowing how to integrate it into a system with two existing categories: coordination and apposition.

Holmstedt’s view has evolved over the years, and is similar to Polak (2013a), but more fleshed out. While still affirming NRA to have specifying-semantics, Holmstedt now denies that it is a type of coordination. Instead, he takes “apposition to be the anchored variety of general parenthesis (formal parenthesis being anchor-less), which stands as the sister of coordination within the larger category of nonsubordination” (Holmstedt 2019b:626, n. 19). Elsewhere, he provides the following typology of clause types (Holmstedt 2020:109):



Although *waw* is often used for prototypical coordination, it can also be used for nonsubordination, and its use “must be determined based on what is most felicitous in the discourse” (Holmstedt 2019b:625, n. 17). Thus, he still affirms that *waw* may optionally introduce an appositive, but does not investigate what factors may limit its distribution.

### 2.4.3 Summary

This section has complicated matters considerably, since, evidently, a *waw* can introduce either coordination or apposition. Similarly, asyndeton signals apposition or null coordination. Once again, we encounter the questions of the use(s) of *waw* and what makes coordination unique. What dictates whether *waw* is overt or not in a list of coordinated items, and do different patterns reflect different syntactic structures (§2.4.1)? Does *waw* have the same function when it conjoins distinct entities as when it conjoins co-referential phrases (§2.4.2)?

### 2.5 Summary

In this chapter, we began by looking at how Hebraists have focused on the semantics of clausal coordination (§2.2). *Waw* can introduce a wide variety of semantically-subordinate clauses, provoking the following questions: Should one always translate *waw* and, if so, how (§2.2.1)? What meanings are associated with *waw*, and how many uses does it have (§2.2.2)?

While most of the field assumes that coordinate structure is symmetric, a few studies point to the asymmetric nature of coordination (Miller 1999, Doron 2000, Cowper and DeCaen 2017). It is crucial now to develop a sound theoretical account of coordination structure (§2.3.1) and to define the function of the coordinator (§2.3.2). In doing so, we must seek to explain how exactly coordination is distinct from subordination (§2.3), and how null coordination (§2.4.1) is distinct from apposition (§2.4.2). In the next chapter, we will begin to accomplish these tasks by developing a cross-linguistic perspective on coordination.

## **CHAPTER 3: PREVIOUS RESEARCH ON COORDINATION IN LINGUISTICS**

### **3.1 Introduction**

While much-discussed, the topic of coordination is fairly unique in linguistics, because there is very little agreement on what even the basic structure of coordination in (1) should be.

(1) [John and Mary] rode a tandem bicycle.

Is the structure hierarchical or flat? What are the functions of the conjuncts? Is the coordinator a head? And does the coordinator project an independent functional category?

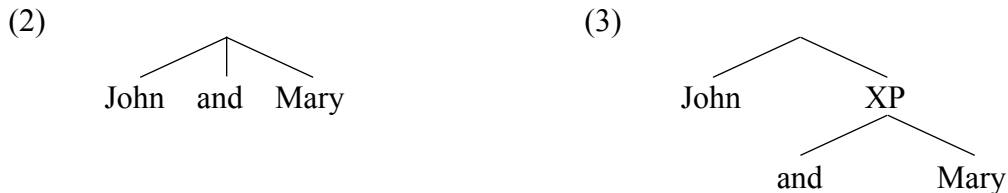
In the following sections, I will critically engage with the literature of general linguistics and seek to find answers to the most fundamental issues regarding coordination. First, I will address the four questions regarding the basic structure of coordination expressed above (§3.2). Then I will account for the symmetry and asymmetry found in coordinate structures and the distinction between coordination and subordination (§3.3).

### **3.2 Basic Structure of Coordination**

The concept of coordination is at the heart of very complex debates on ellipsis and movement. It is, therefore, surprising that questions regarding even the most basic structure of coordination continue to be a matter of discussion. The following sections will provide answers to these questions regarding coordination: Is the syntactic structure hierarchical or flat (§3.2.1)? What are the functions of the conjuncts (§3.2.2)? Is the coordinator a head (§3.2.3)? And does the coordinator form an independent functional category (§3.2.4)?

### 3.2.1 The Structure is Hierarchical

Of the many questions to address, only this first question—Is the coordination structure hierarchical or flat?—has basically been settled. A flat structure posits ternary branching (2), while a hierarchical structure requires strict binary branching (3).



In the past, many simply assumed—and only some argued explicitly for—a flat structure (Gleitman 1965, Dik 1968, Dougherty 1969, Goodall 1987, Hudson 1988), but virtually no one today advocates for the symmetric structure (cf. Carston and Blakemore 2005).

A flat structure cannot account for a number of empirical data. Asymmetric prosody data suggest that the conjunction forms a subconstituent with one conjunct. For instance, after splitting a conjoined sentence like (4), the conjunction always goes with the second sentence (5a), never the first (5b) (cf. Abeillé 2003).

(4) John left, and he didn't even say goodbye. (Ross 1967:163)

(5a) John left. And he didn't even say goodbye.

(5b) \*John left and. He didn't even say goodbye.

Similarly, there is an asymmetric prosodic break between the conjuncts at the phrase level (cf. Ross 1967, Munn 1993, Carston and Blakemore 2005, Chaves 2007).

(6a) I will see John # and Mary. (Abeillé 2003:3)

(6b) \*I will see John and # Mary.

There are also morphological and syntactic data that suggest sub-constituency. For instance, the conjunction cliticises to one of the conjuncts in languages such as Japanese (7) and Latin (8) (cf. Ross 1967, Munn 1993, Carston and Blakemore 2005, Chaves 2007).

- (7) *hon-to pen* (Abeillé 2003:5)  
 book-and pen  
 “book and pen”
- (8) *senatus populus-que* (Haspelmath 2007:8)  
 senate people-and  
 “the senate and the people”

Likewise, there are some languages with coordinator floating, where “certain coordinators can occur either between two conjuncts [9a] or inside the second conjunct [9b], but they never occur to the left of [9d] or inside the first conjunct [9c]” (Zhang 2006:181; cf. Ross 1967:163–164). Zhang’s main data set uses the disjunctive Chinese coordinator *ke(shi)* “but.”

- (9a) *Baoyu yao tiaowu, ke(shi) wo yao hui-jia.* (Zhang 2006:182–183)  
 Baoyu want dance but I want return-home  
 “Baoyu wants to dance, but I want to go home.”
- (9b) *Baoyu yao tiaowu, wo ke(shi) yao hui-jia.*  
 Baoyu want dance I but want return-home
- (9c) *\*Baoyu ke(shi) yao tiaowu, wo yao hui-jia.*  
 Baoyu but want dance I want return-home
- (9d) *\*ke(shi) Baoyu yao tiaowu, wo yao hui-jia.*  
 but Baoyu want dance I want return-home

In a typology study, Haspelmath uses four constituency tests for monosyndetic coordination (intonation, pauses, discontinuous order, and (morpho)phonological alternations), and concludes that coordination constituency “seems to be universally asymmetric” (2007:9).<sup>1</sup>

This means that the coordinator always forms a subconstituent with one of the conjuncts.

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<sup>1</sup> Another argument for an asymmetric constituency is based on the restricted distributions of less deletable coordinators. Building on an argument made by Zoerner (1995), Zhang notes that in languages like French with initial coordination, only non-final coordinators are deletable.

- (i) *Joan connait (et) Paul et Michel.* (Zhang 2006:179–180)  
 Joan knows (and) Paul and Michel  
 “Joan knows Paul and Michel.”
- (ii) *\*Joan connait et Paul Michel.*  
 Joan knows and Paul Michel  
 “Joan knows Paul and Michel.”

She concludes that this contrast shows the fixed-position relationship between the real coordinator and the conjuncts: “The fixed positions again suggest that the position of a coordinator is not equidistant to the two conjuncts. Alternatively speaking, the two conjuncts of a coordinate complex are not syntactically equal: One of them is closer to the coordinator and is grouped with it” (Zhang 2006:181).

Finally, binding asymmetries in coordination, which have been well-documented since (Blümel 1914), suggest that coordination is a hierarchical structure. For instance, only the first conjunct can bind the second conjunct (10).

(10a) Every man<sub>i</sub> and his<sub>i</sub> dog left. (Zhang 2006:178)

(10b) \*His<sub>i</sub> dog and every man<sub>i</sub> left.

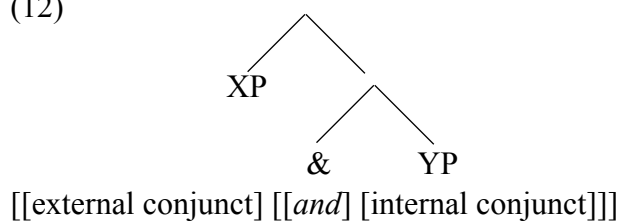
Additionally, only when the R-expression is in the first conjunct can it be co-referential with a pronoun in the second conjunct (11) (cf. Larson 1990:594–596).

(11a) John<sub>i</sub>'s dog and he<sub>i</sub>/him<sub>i</sub> went for a walk. (Munn 1993:16)

(11b) \*He<sub>i</sub> and John<sub>i</sub>'s dog went for a walk.

Taken together, the facts from prosody, morphology, syntax, and conjunct binding, make a strong case that coordination is an asymmetric structure. The asymmetry is a result of binary branching, wherein the coordinator forms a constituent with one of the conjuncts, which we will call the *internal conjunct*, and we can call the other conjunct the *external conjunct* (12) (Zhang 2006:186; cf. Zhang 2010).

(12)



### 3.2.2 The Conjuncts Function as Specifier and Complement

The previous question—Is coordination structure hierarchical or flat?—had a fairly straightforward answer. This one—What are the functions of the conjuncts?—is far more disputed. There are essentially four different proposals: (1) complementation, (2) adjunction, (3) both as specifiers, and (4) both as heads. Proposals (3) and (4) assume that the coordinator

is not the head, so these will be addressed in the next section (§3.2.3). Here, I will defend the complementation model over the adjunction model.

The main proponents for complementation are Kayne (1994), Zoerner (1995), Johannessen (1998), and Zhang (2006, 2010). Earlier accounts of complementation (Johannessen 1998, Caponigro 2003) relied mainly on arguments that the first conjunct is assigned case through spec-head agreement, but Borsley (2005:476–480) and Zhang (2010:21) caution against deriving inflectional patterns from an appeal to syntactic structure.

The following three arguments represent a more sure case for complementation, which has been advanced by Zhang (2006, 2010). First, the external conjunct cannot be stranded. The whole complex may be extraposed (13a), but not the coordinator and the internal conjunct (13b, 14b), which is in contrast to a subordinator with its complement (15b).

(13a) [Tall and slim]<sub>i</sub> though Helen is t<sub>i</sub>, ... (Postal 1998:191)

(13b) \*[And slim]<sub>i</sub> though Helen is [tall t<sub>i</sub>], ...

(14a) John laughed and Mary cried.

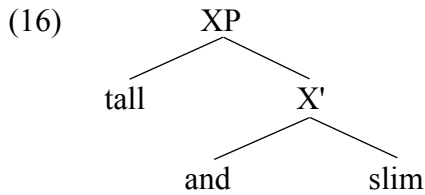
(14b) \*And Mary cried John laughed.

(15a) The boy laughed, because the girl was silent. (Zhang 2006:192)

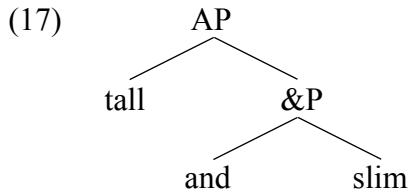
(15b) Because the girl was silent, the boy laughed.

The contrast between (14b) and (15b) is notable, and being able to account for it will have some bearing on the distinction between coordination and subordination.

Zhang (2006:192–193) accounts for the contrast in this way: the coordinator and internal conjunct cannot move, because they form an intermediate projection. The structure of (13a) is shown in (16).



Conversely, an adjunction structure (cf. Munn 1993) wrongly predicts movement, because the conjunction and internal conjunct form a maximal projection right-adjoined to the Adj (17).



This argument follows minimalist assumptions that a constituent must be a maximal or minimal projection in order to move (Chomsky 2015:253).

Movement of the intermediate projection is not only blocked leftward, but also rightward. Example (18) looks like an exception, but it is more likely an example of stripping, which elides all but one non-verbal constituent. According to a fairly recent dissertation, stripping results from “overt movement of the remnant to the left periphery of the clause, followed by [InflP] deletion” (Kolokonte 2008:ii), illustrated in (19).

(18) John bought a book yesterday, and a newspaper. (Zhang 2006:194)

(19) John bought a book yesterday, and [[a newspaper]<sub>i</sub>; he also bought t<sub>i</sub> yesterday].

Stripping is not possible for predicates that require a plural subject (cf. *share*, *similar*). The contrast in (20) helps us see more clearly that rightward conjunct movement is blocked.

(20a) John and Bill met. (Zhang 2006:196)

(20b) \*John met and Bill (too).

To sum up this first argument, the conjunction and internal conjunct form an intermediate projection within a complementation analysis, which explains why the constituent cannot move either leftward or rightward. What looks like movement actually results from ellipsis.

A second argument for complementation is that the coordinator can interact with the internal conjunct. We saw this in the floating coordinator data (9), which are repeated below.

- (9a) *Baoyu yao tiaowu, ke(shi) wo yao hui-jia.*  
 Baoyu want dance but I want return-home  
 “Baoyu wants to dance, but I want to go home.”
- (9b) *Baoyu yao tiaowu, wo ke(shi) yao hui-jia.*  
 Baoyu want dance I but want return-home

The possibility of two positions for the coordinator indicates a dependency relation between the coordinator and its sister, which would be impossible for adjunction (Zhang 2006:198).

A third argument is that an element can be extracted from either conjunct. Such extraction is supposedly blocked by the Coordinate Structure Constraint (CSC), defined in (21) and exemplified in (22).

- (21) Coordinate Structure Constraint: In a coordinate structure, no conjunct may be moved, nor may any element contained in a conjunct be moved out of that conjunct. (Ross 1967:161)
- (22) \*What kind of herbs did you [[eat t] and [drink beer]]? (Zhang 2006:201)

Grosu (1973) made a formal distinction between the two parts of the CSC, the first he called the Conjunct Constraint (CC), which is not violated, and the second he called the Element Constraint (EC), which can be violated (cf. Goldsmith 1985, Lakoff 1986, Culicover and Jackendoff 1997, Johannessen 1998, Zhang 2006).

Specifically, the EC can be violated within asymmetric coordination. The following English (23) and Chinese (24) examples have an understood causal relationship.

- (23) This is the senator that the Mafia pressured t, and the senate voted for health care reform. (Culicover and Jackendoff 1997: 206)
- (24) *Zhe jiu shi Akiu ting-le \_\_\_ yushi daku-qilai de xiaoxi.*  
 this just be Akiu hear-PRF and weep-INCH MOD news  
 “This is the very news that Akiu heard and started to weep.”  
 (Zhang 2006:203)

While extraction is possible for coordination examples, it is not possible with a subordinating conjunction like “when.”

- (25) ??This is the senator that when the Mafia pressured t, the senate voted for health care reform. (Culicover and Jackendoff 1997: 207)

The extraction contrast between (23) and (25) suggests that coordination (23) is a complementation structure, while subordination (25) is an adjunction structure.

An adjunction structure fails to account for the empirical data covered in the preceding three arguments. Other linguists have also pointed out problems for the adjunction model (Camacho 1997:6, Johannessen 1998:166, Abeillé 2003:4). Zhang states one final theoretical flaw: “Claiming a category [&P] to be a permanent adjunct is *ad hoc*. No other category in syntax has such a restriction” (2006:208). Instead, there is a spec-head relationship between the external and internal conjuncts, which is a product of Merge that is endemic to syntactic structure (Kayne 1994).

The complementation model of coordination is also strong enough to stand up against critics. One objection is that some languages have what appears to be initial coordination, wherein there are as many coordinators as conjuncts:

- (26) *et Paul et Michel* (French)  
and Paul and Michel  
“Paul and Michel”

If (26) is indeed a multi-headed structure, one conjunct cannot be specifier of the head with the other as its complement (Grootveld 1992, Borsley 2005). But I take the arguments of de Vries (2005), Johannessen (2005), and Chaves (2007) as determinative that the “initial coordinator” is not a true conjunction. Rather, it is most likely a parasitic Focus particle (Hendriks 2003, 2004b, Zhang 2008).

A second objection comes from constructions with more than two conjuncts but only one coordinator. A complementation analysis is said to be “incompatible either with the assumption that a phrase has a finite number of specifiers or with the assumption that a phrase has a finite number of complements” (Borsley 2005:466; cf. Grootveld 1992, Abeillé 2003, te Velde 2005). Nevertheless, Zhang (2010:75) rightly points to several other studies that propose multiple spec constructions. Moreover, Chomsky has no theoretical issue with multiple specifiers: “To say that there are any number of specifiers is not an assumption, it’s just to say you may continue to merge indefinitely: it merely states that language is a recursive system” (2002:133). Neither initial coordination nor multiple spec constructions poses a problem for a complementation analysis of coordination.<sup>2</sup>

### **3.2.3 The Coordinator is the Head**

As with the last section, the question of whether the coordinator is a head is hotly disputed. If I can show, however, that the coordinator is a syntactic head, this will rule out the options introduced at the beginning of the previous section that the conjuncts can both be specs (Camacho 1997) or heads (Cormack and Smith 2005).

Perhaps the strongest argument that the coordinator is a head element is that the coordinator is able to select the category of its complement. While many languages are like English in that the coordinator can conjoin two constituents of any category, coordinators in other languages have category requirements for their complements.<sup>3</sup> One of many such examples is in Maasai from the Nilotic family spoken in Kenya and Tanzania. Maasai has two

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<sup>2</sup> Another objection is that specifiers and complements are assumed to be maximal projections while conjuncts are not maximal projections (Borsley 2005:471–473). For this, I merely note Zhang’s thorough response (2010:37–40).

<sup>3</sup> This second type of the world’s languages is so frequent that Haspelmath reports that there is perhaps no African language “that expresses NP conjunction and sentence conjunction in the same way” (2007:21).

coordinating conjunctions: *oo* conjoins only non-clausal constituents (27), and *n-* conjoins only clausal constituents (28).

(27) ol-osokwan oo ol-dia (Caponigro 2003:2)  
 the.MS-buffalo and the.MS-dog  
 the buffalo and the dog

(28) ε-ḡomḡ toret enaipafa n-εḡomḡ resoī nairobi (Caponigro 2003:3)  
 went.3S Toret the-lake and-went.3S Resoī Nairobi  
 Toret went to the lake and Resoī went to Nairobi.

Other categorial contrasts have been noted in many of the world’s languages (Dzameshie 1998, Haspelmath 2007:20–21, Zhang 2007a:6–9).

Similarly, even null coordinators can have categorial requirements for their complements. For example, Háúsá, a Chadic language, uses *dá* to conjoin DPs (29a), but the coordinator must be null to conjoin clauses (29b).

(29a) Dà ní dà kái dà shíí, múú àbòòká nèè (Zhang 2007a:9)  
 and I and you and he we friends are  
 “I, you and he, we are friends.”

(29b) Múúsá káá shá gíyàà (\*dà) káá gàsà kíífíí  
 Musa INFL<sub>PERF/3MS</sub> drink beer (\*and) INFL roast fish  
 Musa drank beer and roasted fish.

Since a coordinator can require its complement to be of a specific category, the coordinator must be the head, “since only head elements exhibit c-selection restrictions on their sisters” (Zhang 2007a:13).

Other linguists have made cases for the coordinator as a head element. Johannessen positively reviews the coordinator as meeting the criteria for heads set out by Zwicky (1985) and Hudson (1987): (a) a semantic argument or functor; (b) a determinant of agreement; (c) a morphosyntactic locus; (d) a subcategorizer; (e) a distributional equivalent of the phrase in which it occurs; and (f) obligatory (Johannessen 1998:75–88; but note a few counterarguments by Chaves 2007:24–25).

Camacho (1997) provides two other arguments for the coordinator as head. First, he uses some data to show that the conjunction can block case assignment.

(30a) \*Kim saw I. (Zoerner 1995:66)

(30b) Kim saw Robin and I.

Camacho suggests that these data can be explained only if the coordinator as head assigns or checks case (1997:45). Second, he shows that the coordinator interacts with other heads, such as negation in Spanish (1997:46–48).

There have, however, been several arguments made that the conjunction cannot be a head. One argument is that there is no dominant daughter: “In head constructions there is a grammatically dominant daughter which establishes the category and distribution of the whole, whereas in non-headed constructions no daughter can be said to be dominant” (Chaves 2007:15). But this is not quite the case with coordination. There are instances where the conjuncts do not have the same categorial status, and the external conjunct always determines the category of the coordinate complex (cf. §3.2.4).

(31a) You can depend on [DP my assistant] and [CP that he will be on time].

(31b) \*You can depend on [CP that he will be on time].

(31c) \*You can depend on [CP that he will be on time] and [DP my assistant].

These data from (Sag et. al. 1985:165) show that a DP and CP can be coordinated, but the DP must come first because of the c-selection properties of the preposition (Zhang 2007a:15–18).

A second argument is that the conjunction is not last in strictly head-final languages like Japanese (Abeillé 2003, Borsley 2005). Nevertheless, there has been a very interesting typological study of monosyndetic (one conjunction) NP coordination in 214 languages (Zwart 2009), wherein a true coordinator never occurs in the final position. Zwart concludes that Merge produces “an asymmetric pair of sisters,” that coordination is always marked on

the left edge of the second coordinand,<sup>4</sup> and that “the second conjunct is invariably the dependent of the first conjunct” (2009:1599). If the placement of the coordinator is fixed by the operation of Merge in creating an ordered pair by joining the second element to the first, then it is no longer subject to the headedness restrictions of any particular language.

So far the main argument advanced that the coordinator is the head is that it shows c-selection requirements in many languages. I have responded to two objections to the claim that the coordinator is a head element, but the remaining objections are actually against the coordinator projecting an independent functional category, &P. I will raise and respond to these objections in the next section.

### 3.2.4 The Coordinator Does Not Form an Independent Functional Category

It is quite common to assume that if the coordinator is a head then it projects the category &P.

However, these are two related, but separate, issues:

One needs to distinguish between whether coordinators can function as head elements, and whether they should be classified as an independent functional category.... The word *do* can be a realization of T (or some other functional projection, see Laka 1994), but it does not head an independent *DoP*, in contrast to other functional and lexical categories (Zhang 2010:64).

Thus, what is often framed as an argument against the coordinator as head is really an argument against the category of &P.

One supposed argument against the coordinator as head concerns feature agreement in Rumanian. While simplex NPs trigger verb agreement on a strict morphosyntactic level, coordinated NPs trigger verb agreement on a discourse reference level. Farkas and Zec (1995) assume that coordinated NPs are headless to account for the dichotomy, but this is not a necessary inference from their data. It could be that the coordinator is a not a functional head

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<sup>4</sup> Examples of final coordination are not true coordination, but comitative or summary coordination (Zwart 2009:1594–1598).

(Grootveld 1992, Camacho 1997, Johannessen 1998) but a defective head (te Velde 2005:100–105), or at least not a head that projects an independent functional (Zhang 2007a, 2010). As such, it is not a case-assigning head, which alone may account for the feature agreement contrast in Rumanian.

Another argument is framed against the coordinator being a head, but it really targets the &P position specifically. The argument begins with an observation that the coordinate complex has the same category as the conjuncts. The conclusion is that the coordinator cannot be the head, because it does not affect the category of the conjuncts. This observation poses two problems, but these are for the &P proponents, not the head proponents *per se*. First, it requires a more clunky system with “further theoretical assumptions about how the category of coordinate structures is determined” (Chaves 2007:23; cf. Kubo 2007). Second, the conjunction head does not constrain where a coordinate phrase can appear, and it requires extra rules to dictate which coordinate phrases (NPs, DPs, etc.) can occur in which environment (Hudson 1988:314–315). In sum, proposing &P adds unhelpful complexity into the syntactic system, but this observation does not necessarily affect the coordinator being the head of its phrase.

This second argument—that the conjunct head does not constrain the distribution of coordinate phrases—has been taken further, specifically to prove that there is no &P as a functional category: “The distributions of coordinate complexes are not only covered by, but are also more restricted than, simplex elements” (Zhang 2010:61). Whereas a plural subject can occur with a quantity-denoting predicate (32a) or within a partitive construction (33a), a coordinate complex cannot occur in either of these constructions (32b, 33b).

(32a) The men were {numerous/plentiful/interspersed}. (Dougherty 1970:854)

(32b) \*John, Bill, and Tom were {numerous/plentiful/interspersed}.

(33a) Half of the quartet wanted to quit. (Dougherty 1970:855)

(33b) \*Half of Mary, Sue, Jane, and Sally wanted to quit.

Zhang offers the following cogent conclusion after examining the data: “Since coordinate complexes are neither found to have any new distribution than that of the currently recognized categories, nor ‘bleach’ the contrasts of the currently recognized categories, they cannot represent any independent category” (2007a:33; cf. Hernández 2007). Thus, there is no positive motivation for proposing an independent function category &P, since the distribution of coordinate phrases is already covered by that of simplex phrases.

So far, this is a strong argument that there is no independent category &P. What is more, none of the arguments specifically in favour of &P are convincing. One such argument is that the conjunction head projects a collective agreement function, so that two coordinated singular nouns usually agree with a plural verb (Johannessen 1998, Bánrėti 2003, de Vries 2005). Chaves provides a more promising way of looking at coordination: “The category of the whole is identical to the categories of the conjuncts, even though the entire coordination structure is syntactically, phonologically and semantically a richer constituent than the conjuncts taken individually” (2007:19). It is likely correct that *and* projects a plural feature,<sup>5</sup> but this observation is not an argument for the projection of an altogether new category.

A second argument for &P concerns a contrast between pronouns in Norwegian. While a simplex pronoun can be unstressed, a coordinate complex cannot be unstressed (Johannessen 1998:94). But Zhang makes a very important counterargument: “Not all closed-class and unstressed elements head independent projections. For instance, demonstratives, pronouns, and Chinese locatives do not need stress, and they are all closed class.

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<sup>5</sup> Similarly, *or* projects a disjunctive feature, and *but* projects an adversative feature (Zhang 2007a:37).

Nevertheless, they are hosted by DPs and NPs” (Zhang 2010:63). Thus, stress is not a reliable guide for proposing a functional category of &P.

A third argument for &P is that a complex NP can behave differently from one (34) or both (35) of its conjuncts. Consider the following uses of accusative case (Johannessen 1998):

(34) Him and I both left.

(35) Them and us are going to the game together.

Johannessen takes the coordinator to be a case-assigning head (1998:116–119), which may also license default—or lack thereof—case in certain situations (1998:120–123, 139). She concludes, “Such examples would remain unexplained without a CoP category” (1998:165). But this argument that the coordinator is a case-assigning head goes too far. For example, non-nominal conjuncts like verbs do not have case features: “If coordinators must have a case-relation with conjuncts, the derivation of coordinate non-nominal complexes will crash, since the case-feature of the coordinators cannot be checked” (Zhang 2010:64). A coordinator cannot be a case-assigning head, because then it could only conjoin nominal conjuncts, which alone have case features that need to be checked.

A fourth argument for &P actually proves to be its fatal unravelling. Johannessen says that the conjunction projects, but the &P gets its major category from one of the conjuncts “given spec-head agreement and the undefined nature of conjunctions” (1998:112). But if the conjunction projects the category of one of the conjuncts, there is no remaining motivation for arguing that the conjunction projects an independent functional category, &P. If the &P position truly is no longer tenable, what replaces &P? Zhang provides the most promising way forward.

Similar to Johannessen, Zhang argues that it is specifically the category feature of the external conjunct that is transferred to the coordinator and projected by the coordinator into

the maximal projection of the phrase. She draws data from various literature to show that the external conjunct must always satisfy the c-selection requirements of the preposition (36a) and the verb (37a) (Zhang 2007a:15–20).

(36a) Pat was annoyed by [<sub>DP</sub> the children’s noise] and [<sub>CP</sub> that their parents did nothing to stop it].

(36b) \*Pat was annoyed by [<sub>CP</sub> that their parents did nothing to stop it].

(37a) John eats [<sub>DP</sub> only pork] and [<sub>PP</sub> only at home].

(37b) ?\*John eats [<sub>PP</sub> only at home] and [<sub>DP</sub> only pork].

Zhang rejects the notion that the category features of the conjuncts in these data are neutralised. Instead, she proposes, “The category features of the external conjunct are decisive, whereas those of the internal conjunct are syntactically invisible” (2010:54).

Since the category of the external conjunct is decisive, it may be the case that the category transfers to the coordinator through feature percolation and then is projected to the whole complex (Zhang 2010:56). Borsley objects, “Specifiers and complements do not generally share features with the phrases in which they appear” (2005:466).<sup>6</sup> However, the following two examples show that you can get feature percolation from the specifier: a Neg feature in (38) and a Wh feature in (39).

(38) Nobody’s car would I borrow. (Zhang 2007a:25)

(39) Whose book did you read?

Not all the details are worked out by Zhang, but her proposal—that feature percolation from the external conjunct is projected by the coordinator—is a promising way forward.

In this section we have made great progress by separating the concern for &P from the question of whether the coordinator is a head element. Although the coordinator is a head, it

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<sup>6</sup> Cf. Abeillé (2003:4) who says, “It is not expected that a phrase behave like its specifier.”

does not have case-assigning features; as a result, it is able to conjoin non-nominals. Since the distribution and categorial contrasts of coordinate complexes are covered by simplexes, there is no motivation for proposing &P. Instead, the category features of the external conjunct are transferred to the coordinator and projected from there to the top of the phrase. There is no independent functional category &P.

### **3.2.5 Summary**

In response to the most basic syntactic questions regarding coordination, we have seen good reason to believe that the structure of coordination is hierarchical (§3.2.1) with the conjuncts in a complementation relationship (§3.2.2) and the coordinator as the head (§3.2.3), which projects the category of the external conjunct into the maximal projection (§3.2.4).

### **3.3 Symmetry and Asymmetry in Coordination**

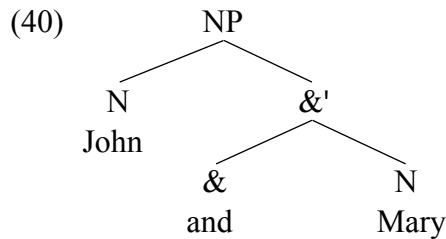
A syntactic account of coordination must account for both symmetries and asymmetries between the conjuncts. The legitimacy of a system is judged by whether it can accurately account for both aspects of the coordination data (Kubo 2007). In their introduction to an entire journal devoted to coordination, Carston and Blakemore (2005:353) state the following:

There are many different issues addressed in the papers, but one recurrent theme concerns the symmetry or asymmetry of the two (or more) coordinated structures at various levels of analysis, formal and interpretive, and the closely related distinction between coordination and subordination.

In the following subsections, I will address the important questions of how coordination symmetry is achieved in an asymmetric structure (§3.3.1) and how coordination is distinct from subordination (§3.3.2).

### 3.3.1 How is Symmetry Achieved in an Asymmetric Structure?

According to §3.2, syntax is able to produce only asymmetric coordination structures with the coordinator as the head. In English-type languages, the external conjunct is the spec, and the internal conjunct is the complement (40). The category of the external conjunct gets projected to the top of the phrase.



While the syntactic structure is inherently asymmetric, there are usually semantic symmetries reflected in coordination. For instance, the conjuncts in (40) can be reversed with little to no effect on interpretation.

At the outset, it is important to distinguish between three possible levels of symmetry/asymmetry: in syntax, in semantics, and in discourse. Blühdorn (2008:61) devotes an entire article to the following crucial questions:

Is there a parallelism between coordinative vs. subordinative connection of clauses in syntax, symmetrical vs. asymmetric connection of concepts in semantics and non-hierarchical vs. hierarchical connection of rhetorical units in discourse? Or are these three levels of connection independent of each other?

In response, he maintains that “syntactic coordination and semantic symmetry must be carefully distinguished” (Blühdorn 2008:70). Similarly, Culicover and Jackendoff (1997) look at certain conditional statements expressed in coordination (e.g. “You drink one more can of beer, and I’m leaving.”), and conclude that syntax has some level of autonomy from semantics (cf. Zhang 2010:25). Thus, one must not simply assume that a symmetry in semantics requires a symmetric structure in syntax, or vice versa. Nevertheless, syntax and semantics should not be viewed as totally independent of one another.

Several studies emphasise that there is also semantic asymmetry in coordination, specifically the priority of the first conjunct. This is unsurprising, given the asymmetric syntactic structure of coordination. Anderson writes, “A priority, however slight, is accorded to the first {N},” a priority that is even more apparent when the first conjunct is a clause (2013:52; cf. van Oirsouw 1987:13–15, Chaves 2007:284–291). Cann et al. adopt Dynamic Syntax (DS), a right-to-left processing system, and propose that the second conjunct is linked to the first “with the first ... providing the context in which the second is to be processed” (2005:513). The context-setting nature of the first conjunct explains semantically asymmetric coordination: “ $p \wedge q$  may not be interpreted the same as  $q \wedge p$ , because  $q$  may induce different inferential effects in the context of  $p$ , than  $p$  does in the context of  $q$ ” (Cann et al. 2005:515–516; cf. Caponigro 2003).

Another study establishes that semantic asymmetries in coordination have their source in narrow syntax. Zwart (2009) makes the case that within Minimalism, Merge itself is an asymmetric operation that generates ordered pairs rather than unordered sets. In support of the work by Kayne (1994), Zwart advances the theory that in asymmetric Merge “one element is ‘merged to’ the other (instead of two elements ‘merged with’ each other<sup>7</sup>)” (2009:1593). To test this hypothesis, he considers 214 languages with monosyndetic NP coordination where the NPs are symmetric (reversible). There are three logical word order possibilities with the coordinator (&) and two conjuncts ( $\alpha$ ,  $\beta$ ):

(41a) &  $\alpha \beta$

(41b)  $\alpha$  &  $\beta$

(41c)  $\alpha \beta$  &

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<sup>7</sup> Kubo (2007) argues for this second view, namely that the elements are merged with each other.

Surprisingly, (41a) does not occur at all, and he argues that none of the reported examples of type (41c) are true coordination, but are comitative or summary coordination. He concludes that Merge produces “an asymmetric pair of sisters,” wherein coordination is always marked on the left edge of the second conjunct, and “the second conjunct is invariably the dependent of the first conjunct” (Zwart 2009:1599). He concludes that dependency is not just a semantic relation, but has its source in narrow syntax, which is then manifested in how syntax interfaces with both phonology and semantics.

So far we have established a natural account for asymmetries within coordination, but why is it that such strong symmetries exist in many coordinate structures? What are the restrictions on what may or may not be coordinated? The theoretical systems built for answering these questions are usually either syntax-dominated or semantics-dominated. Several linguists with a syntax-dominant framework propose that only the same parts of speech can be coordinated (Dzameshie 1998, Bánrėti 2003, Chaves 2007). In fact, Chaves (2007) argues that apparent mismatches are always derived from clausal deletion, whether it be Right-Periphery Ellipsis (42) or Left-Periphery Ellipsis (43).

(42a) [Kim likes] [and Mia hates] [chocolate bagels]. (Chaves 2007:316)

(42b) Tracy is [on the cover of] [and featured in] [the July 2001 issue].

(43a) John gave a book to Mary, and a rose to Sue. (Chaves 2007:335)

(43b) I gave to Mary a coloring book, and new roller skates to her sister.

While (42–43) represent data that are certainly derived from ellipsis, not every example of coordination is derived from clausal reduction.<sup>8</sup> Sections 3.2.3–4 show examples of mismatched conjuncts that are not derived from ellipsis.

The restriction on which conjuncts may be coordinated seems to be determined mainly by semantics. The most promising formulation is that of Zhang (2010), who calls her view the Relativized Parallelism Requirement (RPR). The RPR is a semantic filter that compares two conjuncts already built. It consists of two parts, formulated in (44) (Zhang 2010:181).

- (44) Conjuncts of a coordinate complex must hold a coherence relation in terms of:
- a. Relatedness: they must be related to each other semantically, as in natural coordination; or
  - b. Resemblance (Parallelism Requirement): they must hold a resemblance relation in terms of both their semantic type and their dependency chains.

The first part of the RPR, Relatedness (44a), addresses what Zhang calls natural coordination—expressed in conditionality (45) or in cause-effect (46)—as opposed to accidental coordination.

(45) You drink another beer and I'm leaving. (Culicover and Jackendoff 1997:197)

(46) What kind of herb can you [eat \_\_\_ and not get cancer]? (Zhang 2010:180)

Though the conjuncts are of a different semantic type in (45) (protasis and apodosis) and an element has been extracted in only one conjunct in (46), both kinds of coordination are acceptable because they fulfill the Relatedness condition of the RPR (44a).

When the conjuncts do not form a natural pair for coordination, the Parallelism Requirement (44b) becomes obligatory. Zhang provides several coordination examples that

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<sup>8</sup> According to Gleitman (1965) and Tai (1969), any apparent instance of phrasal coordination is the result of reduction from clausal coordination. This hypothesis has been defended by many (Hudson 1973, 1976, Rögnvaldsson 1982, van Oirsouw 1987, Johannessen 1998, Schein 2017), but I take the arguments against the hypothesis as more determinative (Dougherty 1970, 1971, Camacho 1997, Caponigro 2003, Haspelmath 2007, Zhang 2010).

are acceptable, because the conjuncts belong to the same semantic type: Force (47), Focus feature (48a), circumstantials (49), properties of a person (50a), or mental states (51) (2010:186–189).

- (47a) [What and when] does John normally eat?
- (47b) It's amazing how tall he is and the things he can do.
- (48a) John eats only pork and only at home.
- (48b) \*John eats pork and at home.
- (49a) John went to the library [yesterday] and [on Tuesday].
- (49b) John plays at night and every Sunday.
- (50a) John is sick and in a foul mood.
- (50b) \*John is sick and in the park.
- (51) John ran down the path, a marked man and desperately afraid.

Because the conjuncts in these coordination data hold a Resemblance relation (44b), they are acceptable. The RPR is thus a semantic filter that compares two conjuncts after they have been built: “If neither the relatedness nor the resemblance condition is satisfied, the coordinate complex is not acceptable” (Zhang 2010:198). The RPR is not a syntactic constraint; rather, it is “the result of a general economy principle of processing” (Zhang 2010:201; cf. Frazier et al. 2000, Hendriks 2004).

A similar theory has been advanced by te Velde (2005), who assumes binary branching within the Minimalist Program, and argues that a phase-based approach (utilizing Multiple Spell-Out) derives the appropriate semantic symmetries in coordination by integrating Copy (in narrow syntax) and Match (in LF). In his model, the first conjunct is built and the selection of the conjunction induces Copy, “which targets the uninterpretable features requiring checking in the leading conjunct and copies them on to the next conjunct(s), in addition to the

$\theta$ -role. Semantic symmetries are checked in LF” by Match (te Velde 2005:86). These operations interface with Active Memory (AM), which assures symmetry:

This phase-based approach guarantees that subsequent conjuncts have parallel elements by way of copying from the initial conjunct (either a phase or a subarray of a phase). AM, I argue, is able to retain at least one phase/conjunct of a coordinate structure, until Copy applies and it can be spelled out. The symmetries present in coordinate structures help reduce memory load (te Velde 2005:189).

The goal of reducing memory load is similar to the principle of economic processing, but the model differs from Zhang’s in that the semantic symmetry is a formal feature of the syntax. I prefer Zhang’s RPR filter, since is more developed and explicit and, hence, falsifiable.

Kubo (2007) proposes a model that is similar to te Velde (2005), as he also assumes Multiple Spell-Out in the Minimalist Program. Kubo proposes that two conjuncts merge together to form a coordinate structure, and that the conjunction is inserted by late Merge before or after Spell-Out. Inserting the conjunction at late Merge gives the construction “a flat structure at the first stage ... [and] a hierarchical structure at the later stage” (2007:1241). In this way, he accounts for the symmetrical and asymmetrical properties of coordination.

However, Kubo’s (2007) merger analysis crucially assumes that the conjunction is not the head of the phrase (contra §3.2.3). Moreover, Zwart (2009) makes a stronger case that Merge is actually an asymmetric action. Thus, my position is that Merge produces asymmetry, and that the symmetry produced by Copy and Match is not actually uniform (te Velde 2005). Instead, it is either Relatedness or Resemblance that holds in a coordinate structure. The relative symmetry in coordination is best captured by RPR, a semantic filter (Zhang 2010).

### **3.3.2 How is Coordination Distinct from Subordination?**

Inextricably connected to the question of symmetry in coordination is the matter of distinguishing coordination from subordination. At the syntactic level of phrase structure,

coordination is indistinct from subordination—both are asymmetric binary-branching structures (Johannessen 1998, te Velde 2005). Some prefer to speak of coordination mainly in semantic terms, because such criteria apply cross-linguistically, while “structural tests show no more than a tendency to correlate with semantic criteria” (Haspelmath 2007:48; cf. Johannessen 1998). Others prefer to speak of shallow differences, like how certain languages show word order differences between coordinate and subordinate clauses (van Oirsouw 1987, Haspelmath 2007), or that coordinating conjunctions are mutually exclusive (van Oirsouw 1987:108). But what is the fundamental difference between coordination and subordination?

A common answer is that the syntactic function of coordination is determined by both daughters, while the function of subordination is determined by one daughter (Chaves 2007). In the same vein, Haspelmath describes coordination as “structurally symmetrical in some sense,” while subordination is “a dependency structure” wherein one element “is the head and the other element is a dependent” (2007:5). However, several conclusions in this chapter have already neutralised the force of this position. Section 3.2.1 showed that coordination structure is binary, and hence asymmetric and hierarchical. Section 3.3.1 argued that Merge itself is an asymmetric operation that generates ordered pairs, so that the second conjunct is dependent on the first. Finally, §3.2.4 maintained that the external conjunct alone determines the function of the whole coordinate complex.

The most basic difference between the two seems to be that coordination is a complementation relation, while subordination is an adjunction relation (Zhang 2010:33). Section 3.2.2 defended the view that coordination is complementation. Others have defended the view of subordination as adjunction (Huang and Mangione 1985, Abraham 2014). The difference between coordination and subordination is especially striking with movement. Examples (14)–(15) are repeated below.

(14a) John laughed and Mary cried.

(14b) \*And Mary cried John laughed.

(15a) The boy laughed, because the girl was silent. (Zhang 2006:192)

(15b) Because the girl was silent, the boy laughed.

Whereas the coordinator forms an intermediate projection with its complement and is unable to move (14b), the subordinator forms a maximal projection with its complement and can move (15b). This makes sense of the observation by van Oirsouw (1987:105), that coordinating conjuncts uniquely must occur in between clauses.

A similar view is put forward by te Velde (2005). Although I am unsure about some of his terminology, I will first present his view, which he states quite succinctly:

The central difference between coordinate and subordinate clauses can be localized in the differences between the relevant heads: a subordinating conjunction projects, creates its own syntactic domain, the subordinate clause, and has scope over this clause; a coordinating conjunction, because it is a defective head, does none of these. Its sole function is to conjoin (te Velde 2005:7–8; cf. Anderson 2013).

The issue of coordinator scope must be defended, but I believe te Velde's position on the matter will also prove true.

The language I contend with is whether the coordinator projects. Following Zhang (2007a, 2010), I believe that the coordinator, as a syntactic head, does project, but it does not create a new functional category; instead, it projects the category of the external conjunct (§3.2.4). Nevertheless, te Velde may not be talking about something fundamentally different, because in the same study he further explains, “With coordinating conjunctions no new domain is created. Rather, a domain is copied from what goes before” (2005:66). Fundamentally, coordination is a complementation relation, and its head projects the category of the external conjunct, while subordination is an adjunction relation, and the subordinator head creates its own syntactic domain.

### **3.3.3 Summary**

Any serious syntactic theory must account for both the symmetries and asymmetries of coordination. The asymmetries of coordination stem from it being a binary-branching structure, with the category of the external conjunct being projected by the head to the top of the coordinate complex. However, there are also significant, but not uniform, semantic symmetries, which are best captured by Zhang's (2010) Relativized Parallelism Requirement (RPR), a semantic filter for a coordinate structure already built. The RPR insures coherence between the conjuncts either in terms of relatedness (i.e. natural coordination) or resemblance in their semantic type and dependency chains. Subordination is an adjunction relation, while coordination is a complementation relation. Another fundamental difference is that the subordinator is a clausal head that creates its own syntactic domain, while the coordinator head projects no new domain but only the function of the external conjunct.

### **3.4 Summary**

While some important, complex questions related to coordination remain, this chapter has investigated all of the most fundamental questions regarding the basic syntax of coordination. The structure of coordination is hierarchical (§3.2.1). The conjuncts form a complementation relationship (§3.2.2) with the coordinator as the head (§3.2.3). However, the coordinator does not project an independent functional category, but only the function of the external conjunct (§3.2.4). While the syntax of coordination is asymmetrical and has some autonomy from the semantics, the semantic filter RPR determines what may/not be coordinated (§3.3.1). Finally, coordination is distinct from subordination, since it is a complementation relationship while subordination is an adjunction relationship (§3.3.2).

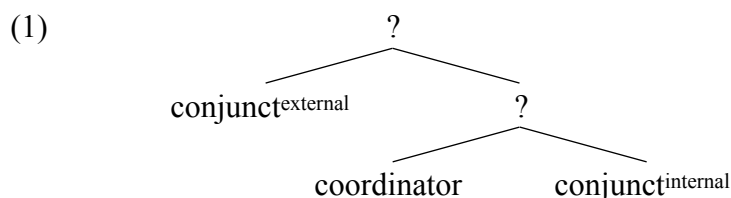
This syntactic framework will be applied to studying BH phrasal coordination in the Pentateuch over the next five chapters. The first three of these chapters address various BH data that result directly from the aspects of syntactic structure established in this chapter. The last two chapters address how phrasal coordination relates to apposition and intersects with verbal agreement.

## CHAPTER 4: THE COORDINATION STRUCTURE IS HIERARCHICAL

### 4.1 Introduction

In chapter 3, I established a cross-linguistic framework for the syntactic structure of coordination. The structure can be summarised in three simple points: (1) coordination structure is hierarchical (2) with the conjuncts functioning as specifier and complement and (3) the coordinator functioning as a defective head. These points will comprise the titles of this and the following two chapters that address phrasal coordination in the Pentateuch.

In §3.2.1, I argued from a generative perspective for a hierarchical structure of coordination, with the coordinator forming a constituent with one of conjuncts, called the *internal conjunct*. The conjunct outside this sub-constituent is the *external conjunct*.



Several asymmetries in BH coordination result from this hierarchical structure: the morphophonology of *waw* (§4.2), the prosody of *waw* (§4.3) and conjunct binding (§4.4).

### 4.2 Morphophonology of *Waw*

As in languages like Japanese (Abeillé 2003) and Latin (Haspelmath 2007), the Hebrew coordinator *waw* cliticises onto one of the conjuncts. The fact that *waw* always appears as a proclitic (2) suggests sub-constituency within the coordinate structure.

- (2) Default Form of Conjunction *Waw* is ׀  
גַּד וְאֲשֵׁר (Gen 35:26)  
*gād wə-’āšēr*  
Gad and-Asher

The default vowel of conjunction *waw* is written as a schwa. However, the encliticisation of *waw* is not simply a morphological phenomenon—it is a classic example of the intersection of morphology and phonology. Depending on the initial phonological shape of the internal conjunct, *waw* takes one of six different allophonic manifestations.

- (3) Before a ב /b/, מ /m/, or פ /p̄/, Conjunction *Waw* is ו̄ /û/  
 יוֹסֵף וּבְנֵימִן (Gen 46:19)  
*yôsēp̄ û-binyāmin*  
 Joseph and-Benjamin
- (4) Before a Schwa /ə/, Conjunction *Waw* is ו̄ /û/  
 זָכָר וּנְקֵבָה (Gen 7:3)  
*zākār û-nqēbâ*  
 male and-female
- (5) Before a י /yə/, Conjunction *Waw* Combines to Form וי /wî/  
 לֵאָה וַיְלֶדְהָ (Gen 33:7)  
*lê'â wî-lādê-hâ*  
 Leah and-boys-3FS  
 Leah and her boys
- (6) Before a א̄ /ě/, wherein the א̄ Quiesces, Conjunction *Waw* is ו̄ /wē/  
 אֱלֹהֵי הַשָּׁמַיִם וְאֱלֹהֵי הָאָרֶץ (Gen 24:3)  
*'ēlohê haš-šāmayim wē-'lohê hā-'āreṣ*  
 God.GEN ART-heavens and-God.GEN ART-land  
 the God of the heavens and the God of the earth
- (7) Before a Hataf Pataḥ /ă/, Conjunction *Waw* is ו̄ /wa/  
 סְדֹם וְעֹמֹרָה (Gen 14:11)  
*səḏōm wa-'āmōrâ*  
 Sodom and-Gomorrah
- (8) Before a Hataf Seghol /ē/, Conjunction *Waw* is ו̄ /we/  
 חֶסֶד וְאֱמֶת (Gen 24:49)  
*ḥesed we-'ēmet*  
 loyalty and-truth
- (9) Before a Hataf Qamets-Hatuf /ō/, Conjunction *Waw* is ו̄ /wo/  
 הֶבֶל וְחֹלִי (Eccl 6:2)  
*heḅel wo-ḥōlî*  
 breath and-sickness



- (13) זֶרַע וְקָצִיר וְקָר וְחֹם וְקִיץ וְחָרֵף וַיּוֹם וַלַּיְלָה (Gen 8:22)  
*zera' wə-qāšîr wə-qôr wā-ḥôm wə-qayis wā-ḥōrep*  
 seed and-harvest and-cold and-heat and-summer and-winter  
*wə-yôm wā-laylâ*  
 and-day and-night  
 “seed and harvest, cold and heat, summer and winter, day and night”

Example (13) is fascinating. The eight conjuncts produce four pairs of antonyms. Conjunction *waw* takes a *qamets* before the second conjunct of each pair that has an initial accent: וְחֹם, וְחָרֵף, and וַלַּיְלָה. Conversely, when *waw* is attached to the first conjunct in each pair, it takes a schwa, even though these conjuncts also have an initial accent: וְקָר, וְקִיץ, and וַיּוֹם.

The phonetics of the accented syllable do not play a decisive role for this vocalisation of *waw*. Indeed, every onset is attested for the initial accent of a word that takes וְ,<sup>1</sup> along with each of the full vowels. The vocalic change cannot be explained by phonetic assimilation or dissimilation rules. Rather, the distribution of the allophone וְ is determined by prosody.

#### 4.3.1 Previous Research on *Waw* with *Qamets*

There is no consensus in the Hebrew grammars regarding the distribution and function of the form וְ. Concerning the distribution, Waltke and O'Connor label the form as “phrasal *waw*” and say nothing about whether it can be used at the clause level (IBHS §39.2.1b).<sup>2</sup> Other grammars, however, discuss how it can occur at the clause level (GKC §104g, JM §104d), and Revell (1981:76–77) shows how וְ can join together members of any grammatical class: nouns, adjectives, prepositional phrases, verbs, adverbs, and infinitives.

Regarding the function, van der Merwe, Naudé, and Kroeze imply that its role is influenced by semantics, saying that וְ occurs “with concepts that are closely related (provided

<sup>1</sup> There is no attested case with the onset *waw*, but this is not a meaningful exception, because there is no attested case of a coordinated initial-accent word that begins with *waw* in the Hebrew Bible.

<sup>2</sup> Similarly, van der Merwe, Naudé, and Kroeze seem to imply that וְ specifically marks phrasal coordination, since they include it under the category of the syntax of *waw* at the phrase level (BHRG §40.23.3.1), but not for the clause level (BHRG §40.23.3.2).

the first syllable of the second word is stressed)” (BHRG §40.23.2). Similarly, Waltke and O’Connor say that ׀ “indicates a close bond between the parts of the phrase” (IBHS §39.2.1b). But Revell (1981:81) contends that ׀ does not indicate “a particular semantic relationship between the words ... but is used with members of any word class, wherever the phonological conditions are suitable.” Other grammars describe the phonological conditions in terms of “rhythm,” observing that ׀ usually occurs with a disjunctive accent (GKC §104g, JM §104d).

Those who argue for a rhythmic function point to a parallel vocalisation with ׀, ׀, and ׀ (GKC §103f–i, JM §103c). The prefix prepositions can likewise take a *qamets* when they cliticise to an initial-accent word. There are six different environments that have been classified (14–19):

- (14) Before an infinitive: לְקוֹם, לְשׁוֹבֵת, לְקַחַת, לְתַת, לְצִאֵת<sup>3</sup>
- (15) Before a near demonstrative: בְּאֵלָהּ<sup>6</sup>, בְּזֹאת<sup>5</sup>, בְּזֹה<sup>4</sup>
- (16) Before a heavy suffix: בְּהֵם, בְּכֶם; cf. ׀
- (17) Before a noun in pausal position: לְנֶפֶשׁ<sup>7</sup>
- (18) Before a noun to form an adverbial: לְעֵד, לְנֶצַח, לְרֵב, לְבִטָּח<sup>8</sup>

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<sup>3</sup> Representative of the other words, *qamets* is the default vowel in this verbal form, but the *lamed* does take a schwa when the infinitive takes a pronominal suffix, since the accent shifts to the final syllable (Exod 16:1; Num 1:1; 9:1), and when the infinitive is followed by an R-expression agent (Exod 19:1; Num 33:38; 1 Kgs 6:1).

<sup>4</sup> Along with the other prepositions, ׀ and ׀, the vowel in the phrase בְּזֹה is always *qamets*.

<sup>5</sup> Although JM (§103c) claim that a schwa corresponds to weak stress, a schwa can be found with a disjunctive accent (Gen 45:23), and a *qamets* can be found with a conjunctive accent (Josh 7:20; 2 Sam 17:15[2x]; 1 Kgs 7:37; 2 Kgs 5:4; 9:12).

<sup>6</sup> JM (§103c) explain that the *qamets* cannot be from the article, as in the form הָאֵלָהּ, because a demonstrative only takes the article when it is used as an adjective to modify a noun. With זֹאת, it is not immediately apparent why the vowel is sometimes a schwa (Jer 10:16; 51:19; Job 16:2).

<sup>7</sup> Num 5:2.

<sup>8</sup> There are a total of 141 instances of these four forms, and the vowel is *qamets* in every case, except twice (Isa 34:10; Esth 10:3) when the noun is in the construct state.

(19) Before a repeated noun: מֵיִם לְמֵיִם,<sup>10</sup> מְדוֹר לְדוֹר,<sup>9</sup> פָּה לְפָה<sup>11</sup>

It is striking that the prefix prepositions likewise take a *qamets* only as a clitic to an initial-accent word. This is the same environment where *waw* takes a *qamets*. Nevertheless, labeling the *qamets* a “strong vocalisation” that has “rhythmic nature” (JM §104d) does not really provide an explanation for the phenomenon. Moreover, the fact that a preposition takes *qamets* seems to be lexical information in (14), (16), and (18), but whether *waw* takes a *qamets* is dependent on the position of the word in its phrase.

Revell has addressed the function and distribution of ׀ in two studies (1981, 2016). He attempts to capture the distribution in a single statement: “Where the conjunction joins two or more words of the same grammatical class which function as a unit (i.e. as the equivalent of a single word of that class), if the last member of the group is stressed on its first syllable, the conjunction *waw* preceding it has *qamets*” (1981:76). However, he does recognise the following two exceptions: a word (typically a verb) that forms a clause by itself, and a noun that occurs within a longer list.

He defines ׀ as a “terminal marker” that functions to delineate “a semantic or syntactic unit and assumes a special pattern of vocalization ... due to the effect of the intonation contour governing that unit” (Revell 2016:72). As long as a coordinated initial-accent word is not followed by a modifier at the end of the phrase, *waw* takes a *qamets* over 95% of the time. Revell (1981, 2016) suggests that the lengthened vowel has a relationship with pausal forms, in fact being a lighter form of pause or termination. I believe that Revell’s interpretation needs to be modified in light of recent studies on prosodic hierarchy.

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<sup>9</sup> 2 Kgs 10:21; 21:16; cf. יָד לְפָה (Prov 30:32).

<sup>10</sup> Isa 34:10; cf. דוֹר לְדוֹר (Ps 145:4).

<sup>11</sup> Gen 1:6.

### 4.3.2 Prosodic Hierarchy, Lengthened Forms, and End-Weight

Prosodic theory “organizes a given string of language into a series of hierarchically arranged phonological constituents that in turn form the contexts within which phonological rules apply” (Nespor and Vogel 2007:6). The following are the four most-relevant units of the prosodic hierarchy, arranged from largest to smallest: Utterance (U), Intonational phrase (ι), Phonological phrase (φ), and Prosodic word (ω) (Selkirk 2011). Prosody plays a mediating role between syntax and phonology, especially with regard to the largest two units, the Utterance and the Intonational phrase.

Dresher (1994) does much to advance the view that the Tiberian Hebrew (TH) system of accents, the *te'amim*, corresponds to the prosodic hierarchy. He argues that the *te'amim* encode each domain of the prosodic hierarchy except for the Intonational phrase. In his view, the *te'amim* do not systematically distinguish between the Intonational phrase and the Phonological phrase; rather they present a hierarchy of disjunctive accents, which is governed by the Law of the Continuous Dichotomy (LCD) (Dresher 1994:29; cf. Wickes 1887):

- (20) THE LAW OF THE CONTINUOUS DICHOTOMY (LCD):  
Every verse is divided into two parts (dichotomy); each part is in turn divided by a minor dichotomy. This process is repeated until the conditions for division are no longer met.

A particularly difficult problem for any prosodic theory is to predict the distribution of pausal forms. While the majority of pausal forms are assigned an *etnahta* or *silluq* accent, they can be found with each of the disjunctive accents, and even with a conjunctive accent on some occasions. DeCaen and Dresher (2020) maintain that pausal forms occur at the end of Intonational phrases, and that the unpredictable distribution stems from there being no Intonational phrase in the TH accent system. They admit that “a pausal form with a conjunctive accent amounts to a contradiction,” but “such contradictions are by-products of

the continuous dichotomy and the rules of simplification that transform disjunctive accents into conjunctive ones” (2020:361).

Pitcher (2017, 2020) presents an alternative perspective on the *te'amim*. She argues that the LCD is a fundamentally unsuitable system, because the *te'amim* are representations of linguistic phenomena, not an artificial system devised by the Masoretes to divide the text into “syntactic” units via pause.<sup>12</sup> Moreover, the LCD does not account for intonation, the most salient feature of the *te'amim*. Pitcher’s model (21b) is able to produce a full correspondence to Selkirk’s (2011) standard prosodic hierarchy (21a) (Pitcher 2017:206):

(21a) Standard prosodic hierarchy (Selkirk):	(21b) Intonation-based prosodic hierarchy for TH (Pitcher):
Utterance (U)	Biblical verse (U)
Intonational phrase (ι)	Terminal and Nonterminal (ι) <ul style="list-style-type: none"> <li>• terminal (ι) boundary is signaled by <i>silluq</i></li> <li>• nonterminal (ι) boundaries are signaled <i>etnahta</i> and adjacent <i>te'amim</i> whose intervals are a fifth or greater</li> </ul>
Phonological phrase (φ)	Phonological phrase (φ) <ul style="list-style-type: none"> <li>• a cohesive prosodic unit</li> </ul>
Prosodic word (ω)	Prosodic word (ω) <ul style="list-style-type: none"> <li>• any word bearing its own conjunctive or disjunctive <i>ta'am</i></li> </ul>

Unlike the prosodic model of Drescher (1994) and DeCaen and Drescher (2020), Pitcher (2017, 2020) maintains that *etnahta* and *silluq* do signal Intonational phrase boundaries.

By abandoning a strictly pausal interpretation of the *te'amim*, Pitcher (2017, 2020) engages cross-linguistic data on lengthened prosodic forms at the Intonational-phrase and Phonological-phrase boundaries to provide a solution for the misplaced “pausal forms.” She argues that viewing these as lengthened forms provides a better explanation for why they coincide at Phonological-phrase boundaries and even on a word within a Phonological phrase that is marked with a conjunctive *ta'am*.

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<sup>12</sup> While Pitcher (2020) steadfastly rejects the notion that the *te'amim* generally encode pause, she does make exceptions for *etnahta* and *silluq* which mean “coming to a rest” and “separation/cessation” respectively (2020:115–116).

In some recent phonological studies, it has been shown that lengthening is progressive, affecting the stressed vowel and subsequent segments (Byrd 2000, White 2014). Lengthening occurs in both read and spontaneous speech, and it is more prominent in phrase-final position than in either phrase-initial or phrase-medial positions (Gósy and Krepsz 2018). It is especially the presence of a pause that has an affect on final lengthening (Kachkovskaia et al. 2013), which can be explained by phonetics and pragmatics: “[Lengthening] could be a strategy to compensate for the salience lost via decreased intensity at the ends of phrases and it could be used to increase planning time for upcoming ideas to be articulated” (Rao 2010:79). Some languages show increased lengthening that correlates with shorter pauses (Rao 2010, Kachkovskaia et al. 2013), while others show increased lengthening that correlates with longer pauses (Byrd 2000).

This overview of the prosodic hierarchy and lengthened forms provides the backdrop for relating the concept of end-weight to the distribution of *waw* + *qamets*. End-weight is a broad phenomenon that describes the tendency of a heavier constituent to occur later in the sentence. In a recent study on end-weight and coordination, Ryan (2019) observes that conjuncts tend to be listed lightest to heaviest, all else being equal. It should be noted that many semantic and pragmatic factors influence conjunct ordering, such as frequency, animacy, proximity, gender, concreteness, and specificity. Nevertheless, one can isolate a potential factor like gender (22), in which case prosodic end-weight (PEW) seems to be decisive in ordering the conjuncts:

(22a) men and women

(22b) ladies and gentlemen

Ryan lists seven distinct properties of heavier constituents: “Longer vowels, lower vowels, longer onsets, less sonorous onsets, longer codas, more sonorous codas, and more

syllables” (2019:316). The fact that lower and longer vowels constitute heavier constituents will be significant for relating PEW to *waw* with *qamets*.

Some have suggested that phrase-final lengthening provides an explanation for PEW, but Ryan (2019:342–345) provides six arguments for why that cannot be the case. Two of these are especially compelling. First, final lengthening cannot account for the syllable-count effect, the tendency to place the item with more syllables in the final position (23).

(23a) kit and caboodle

(23b) trials and tribulations

Second, final lengthening cannot account for languages that exhibit prosodic beginning-weight, languages that tend to be verb-final with left-oriented stress patterns (Ryan 2019:334–336). Ryan’s proposal is that PEW reflects phrasal stress: “Prosodic weight is attracted to final position in end-weight constructions because that is also the locus of greatest stress” (2019:348). I agree with Pitcher (2017, 2020) that “pausal forms” are actually lengthened forms, and I believe that *waw* with *qamets* is a manifestation of PEW,<sup>13</sup> two related but distinct phenomena. I will provide evidence for this viewpoint in the next section.

### 4.3.3 A Prosodic View of *Waw* with *Qamets*

In order to gather more data on pretonic *waw*, I expanded my corpus to include Joshua–2 King. I also incorporated examples initially cited by others. My hypothesis is that conjunction *waw* takes a *qamets* as a reflex of PEW that is attracted to a pretonic stress position at a prosodic break (24).

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<sup>13</sup> Revell (2016:77) offers an alternative proposal: the *qamets* “provides the unstressed vowel between two main-stress vowels.” Yet, as he admits, the syllable preceding a *waw* with *qamets* is unstressed 33/180 cases in the Torah, so he has to appeal to a case of extended usage. And even with this sizable exception, he offers no explanation for why *waw* specifically takes the vowel *qamets*. The choice of *qamets* is best explained as PEW, because longer and lower vowels pattern as heavier constituents. Moreover, the explanation of PEW leaves no exceptions behind.

- (24) וְאֲנִי עָפָר וָאֵפֶר: (Gen 18:27)  
*wə-’ānōkī ‘āpār wā-’ēpēr*  
 and-I.NOM dust and-ashes  
 “And I am dust and ashes.”

In (24), וָאֵפֶר occurs at a prosodic break as the last word of the Utterance. Of the coordinated nouns, עָפָר is actually heavier than אֲפָר, since low vowels are considered heavier than mid or high vowels (e.g. *tit for tat*). However, because אֲפָר has pretonic stress, it can take ׀ when coordinated in final position. Thus, the constituent וְאֲפָר has three full vowels and is thus heavier than the other ordered possibility that would render וְעָפָר.<sup>14</sup>

In the following subsections, I will first show the distribution of ׀ and describe the various syntactic structures in which it occurs (§4.3.3.1). Then I will give a prosodic analysis of how ׀ occurs at the phrase level (§4.3.3.2) and at the clause level (§4.3.3.3).<sup>15</sup>

#### 4.3.3.1 The Syntax of *Waw* with *Qamets*

A prosodic break can occur after any coordinated pair of constituents. Hence, ׀ can coordinate any syntactic pair of constituents at the phrase level, provided the second constituent has pretonic stress: nouns (24) (see above), adjectives (25), participles (26), prepositional phrases (27), complementisers (28), adverbs (29), and infinitives (30).

- (25) וַיִּקַּח בֶּן־בְּקָר רֶדֶד וְטוֹב (Gen 18:7)  
*wayyiqqah ben bāqār rak wā-ṭōb*  
 take.WCIPFV.3MS son.GEN cattle tender and-good  
 And he took a tender and good calf.

- (26) וְהָיִיתִי נֶעַ וְנָד בְּאֶרֶץ (Gen 4:14)  
*wəhāyīṭī nā’ wā-nāḏ bā-’āreṣ*  
 be.WCPFV.1CS wander.PTCP.MS and-tremble.PTCP.MS in.ART-earth  
 “And I will be one who wanders and trembles on the earth.”

<sup>14</sup> It is perhaps for this reason that these nouns are always ordered “dust and ashes” (Gen 18:27; Job 30:19; 42:6).

<sup>15</sup> The broad aim in these sub-sections of analysing the intersection of syntax and prosody should be viewed as similar to that of Naudé and Miller-Naudé (2017:234), who argued that “the tripartite verbless clauses and left dislocated verbless clauses are structurally distinct, both syntactically and prosodically.”

- (27) כִּי־דִבַּרְנוּ בִּיהוָה וְנָדָד (Num 21:7)  
*kī dibbarnū b-yhwh wā-bāk*  
 because speak.PFV.1CP in-YHWH and-in.2MS  
 “because we have spoken against YHWH and against you.”
- (28) מִי וּמִי הֵלֵלְכִים: (Exod 10:8)  
*mī wā-mī ha-hōlākīm*  
 who and-who ART-walk.PTCP.MP  
 “Who exactly are the ones going?”
- (29) וַיִּפֶן כֹּה וְכֹה (Exod 2:12)  
*wayyipen kō wā-kō*  
 turn.WCIPFV.3MS here and-here  
 And he turned this way and that way.
- (30) וַיָּשׁוּבוּ הַמַּיִם מֵעַל הָאָרֶץ הַלְוַי וְשׁוֹב (Gen 8:3)  
*wayyāšūbū ham-mayim mē-‘al hā-‘āreṣ hālōk wā-šōb*  
 return.WCIPFV.3MP ART-water from-on ART-earth walk.INF and-return.INF  
 And the waters returned from upon the earth more and more.

*Waw* can even take a *qamets* when it operates at the clause level to coordinate imperatives (31), *weqatal* verbs (32), and verbless clauses (33).

- (31) וְעַתָּה הִנֵּה אֵשְׁתְּךָ קַח וּלְדִ: (Gen 12:19)  
*wə-‘attā hinnē ištā-kā qah wā-lēk*  
 and-now behold wife-2MS take.IMP.2MS and-walk.IMP.2MS  
 “And now, here is your wife—take and go!”
- (32) וְנָס אֶל־אַחַת מִן־הָעָרִים הָאֵלֶּה וְחָי: (Deut 4:42)  
*wənās ‘el ‘ahat min he-‘ārīm hā-‘el wāhāy*  
 flee.WCIPFV.3MS to one from ART-cities ART-these live.WCIPFV.3MS  
 “And he shall flee to one of these cities and live.”
- (33) כִּי כָל־יָמָיו מְכָאָבִים וְכַעַס עֲנִיָּו (Eccl 2:23)  
*kī kol yāmāy-w maḳ’ōbīm wā-ka‘as ‘inyān-ō*  
 because all.GEN days-3MS pains and-vexation business-3MS  
 “Because all his days are pains, and vexation is his business.”

The 3ms *weqatal* form of “live” can take the default schwa וְחָי in non-pausal position (e.g. 2 Sam 12:22), so the *qamets* in (32) is noteworthy and will be explained in §4.3.3.3. Of these three examples, (33) is the most intriguing, because it almost looks like a coordinate NP כַּעַס וְכָאָבִים “pains and vexation.” Even reading כַּעַס עֲנִיָּו by itself as a construct chain is

possible: “the vexation of his business” (i.e. “his vexing preoccupation”), but *waw* never takes a *qamets* before a construct noun (cf. Revell 1981). Instead, the parallel NPs with a 3ms pronominal suffix, *יָמֵי* and *עֲנִינּוֹ*, are best understood as nominal subjects of paired verbless clauses. Moreover, the chiasmic order of constituents is characteristic of poetic parallelism.

Contrary to what Revell (1981, 2016) has assumed, the constituents joined by *וְ* do not need to be of the same syntactic category. The following examples show a coordinated PP and an adverb (34) and an adverb with a noun (35), exhibiting asymmetric coordination.<sup>16</sup>

- (34) כִּי לֹא נִנְחַל אִתָּם מֵעֵבֶר לַיַּרְדֵּן וְהַלְּאָה (Num 32:19)  
*kī lō' ninḥal 'itt-ām mē- 'ēber lay-yardēn wā-hālā 'ā*  
 because not inherit.IPFV.1CP with-3MP from-side to.ART-Jordan and-beyond  
 “For we will not inherit with them from the other side of the Jordan and beyond.”

- (35) תִּשְׁבוּ יוֹמָם וּלְיַלָּה שִׁבְעַת יָמִים (Lev 8:35)  
*tēšəbū yômām wā-laylā šib 'at yāmîm*  
 sit.IPFV.2MP by.day and-night seven.GEN days  
 “You shall sit daily and (at) night<sup>17</sup> for seven days.”

The data here are consistent with Zhang’s (2010) Relativized Parallelism Requirement (RPR), which was advanced in §3.3.1. Both examples show resemblance in semantic type: location in (34) and time in (35).<sup>18</sup>

Conjunction *waw* with *qamets* also occurs in cases of ellipsis. This is particularly apparent when the clause is made up of one constituent, whether the positive existential particle *וַיִּשׁ* (36), the negative existential particle *וְאִין* (37), or a finite-verb negator *וְלֹא* (38).

<sup>16</sup> Other likely examples of asymmetric coordination marked by *וְ* include the following: Lev 22:27; Num 9:21; 15:23; 35:4; Josh 15:46; 1 Sam 10:3; 14:19; 18:9; 20:22, 37; 2 Sam 15:12; 1 Kgs 10:7.

<sup>17</sup> While I have labeled *וּלְיַלָּה* as a bare noun, the unaccented *qamets heh* on this word could indicate a locative ending, in which case it could be analysed as an adverb and (35) would not be an instance of asymmetric coordination. I thank one of the anonymous examiners for pointing out the uncertainty of this example.

<sup>18</sup> This paragraph is by no means a full discussion of asymmetric coordination. For more on phrasal coordination of different syntactic categories in BH, see §5.3 and §6.2.1.

- (36) וַיֹּאמֶר אֵלָיו הֲיִשׁ אֶת־לִבְבְּךָ יְשׁר כַּאֲשֶׁר לִבְבִי עִם־לִבְבְּךָ וַיֹּאמֶר יְהוֹנָדָב יֵשׁ וַיֵּשׁ תִּגַּה אֶת־יָדְךָ (2 Kgs 10:15)  
*wayyō'mer 'el-āyw hā-yēš 'et ləbābə-kā yāšār ka'āšer ləbāb-î*  
 say.WCIPFV.3MS to-3ms Q-POSEX ACC heart-2MS upright just.as heart-1CS  
*'im ləbābe-kā wayyō'mer yəhônādāb yēš wā-yēš*  
 with heart-2MS say.WCIPFV.3MS Jehonadab POSEX and-POSEX  
*tənā 'et yāde-kā*  
 give.IMP.2MS ACC hand-2MS  
 (Jehu) said to him, “Is your heart upright just as my heart is with your heart?”  
 Jehonadab said, “It is.” “And (if) it is, give me your hand.”
- (37) וַיַּעֲבְרוּ בְּאֶרֶץ־שַׁעֲלִים וְאֵין (1 Sam 9:4)  
*wayya'abrū bə-'ereš ša'ālim wā-'ayin*  
 pass.WCIPFV.3MP in-land.GEN Shaalim and-NEGEX  
 They passed through the land of Shaalim, and there was none (i.e. no donkeys).
- (38) וַיֹּאמֶר אַבְשָׁלוֹם וְלֹא יֵלֶךְ־נָא אִתָּנוּ אֲמִנוֹן אָחִי (2 Sam 13:26)  
*wayyō'mer 'abšālôm wā-lō' yēlek nā' ittā-nû 'amnôn*  
 say.WCIPFV.3MS Absalom and-not walk.JUSS.3MS please with-1CP Amnon  
*'āh-î*  
 brother-1CS  
 Absalom said, “And (if) not, please let Amnon my brother come with us.”

What is striking about (38) is not only that וַ occurs at the clause level, but also that it functions as a discourse marker by introducing direct speech. The previous context is that David has just refused Absalom's request that he and his servants go with Absalom to shear some sheep (2 Sam 13:23–25). Miller's (1999:179) analysis of the coordinator's function in this verse is apropos and worth quoting in full:

In this instance, then, *waw* as a discourse marker operates on three levels: (1) to introduce the protasis of a conditional sentence, (2) to index a dispreferred response by reiterating a request which has already been strongly refused, and (3) to connect the present request to the initial request. The first function is syntactic; the latter two pragmatic.

Like (38), example (36) also contains an unmarked conditional clause, and the *waw* also operates as a discourse marker to indicate a dispreferred response.<sup>19</sup>

The final syntactic construction to address is often called “split coordination,” when it appears that one of the conjuncts has moved and is now separated from the other conjunct by another constituent. Example (39) is one such instance where it seems that the second conjunct has moved rightward, and a vocative now separates two nouns.

- (39) יִרְאַתְיָ֙יְהוָה֙ בְּנֵי֙ וּמֶלֶךְ֙ (Prov 24:21)  
 yārā’                    ’et yhw̄h bənî wā-meleḵ  
 fear.IMP.2MS ACC YHWH son-1MS and-king  
 “Fear YHWH, my son, [and a king; fear \_\_\_\_; my son].”

However, I believe the most natural way to read (39) is as an example of stripping, which requires the coordination of two clauses, or at least *v*Ps (cf. §5.3.3). To establish this interpretation, we need to consider the function of the vocative.

Miller (2010a, 2010b, 2014) has done remarkable work in analysing the syntax of vocatives. She notes that in prose, the vocative rarely occurs in clause-medial positions, since it “has an intonational contour that sets it off from the speech that surrounds it” (Miller 2010b:362). She summarises how this fact relates to poetic lineation: “Since the vocative most commonly occurred at a clause boundary, the poets used the vocative as an additional cue for the delimitation of poetic lines, especially in cases involving ellipsis” (2010b:364). It is unlikely that *וּמֶלֶךְ* comprises a poetic line in (39), but Miller (2003a:263, n. 30) states, “A

<sup>19</sup> Jehu must be the one who says *יִישׁ* in 2 Kgs 10:15, based on the larger context. The Greek translators understood this to be the case, because there is a speech frame (“and Jehu said”) in the LXX. Moreover, the Masoretic scribes seem to have understood this to be the case, because there is a disjunctive accent, *tebir*, between the two instances of *יִישׁ*. If Jehonadab was himself uttering *יִישׁ יִישׁ*, I would expect the two to be joined by a conjunctive accent, as is the case with other identical initial-accent nouns that are coordinated: *יוֹם וְיוֹם* (Esth 3:4), *אֶבֶן וְאֶבֶן* (Deut 25:13), *לֵב וְלֵב* (1 Chron 12:34), *עִיר־וְעִיר* (Esth 8:11), *דֹּר־וְדֹר* (Deut 32:7), *לְשֹׁעַר וְשֹׁעַר* (1 Chron 26:13), and *אִישׁ־וְאִישׁ* (Esth 1:8). In her article on *waw* marking the beginning of a direct quotation, Miller (1999:171–172) excludes 2 Kgs 10:15 from her study because it is missing a quotative frame (cf. Josh 24:23; 1 Sam 9:27), but she does note that it fits the pattern of marking dispreferred speech in a dialogical exchange. While the dispreferred response may not be immediately obvious, Jehu is calling on Jehonadab to act on his professed loyalty, and allows him as a reward to live, unlike those before (2 Kgs 10:14) and after the encounter (10:17).

poetic line may, or may not, be coterminous with a clausal conjunct. Ellipsis, however, is sensitive to the syntax of the clause and not to the clausal line.” Thus, while the vocative in (39) is not a cue for a line break, it is likely an indication that ellipsis has occurred, putting the remnant *king* in contrastive Focus with an additive interpretation (cf. §5.3.3). The son should not only fear the sovereign deity but also the king. This has the effect of making a surprising connection in two calls to fear, but also a distinction in the fear due each party.

We have already seen a vast array of syntactic phenomena connected to the coordinator allophone ׀. It can join together any initial-accent constituents of any syntactic category, not only at the phrase level, but also at the clause level. Moreover, the constituents do not need to be of the same syntactic category in every instance, and the coordinated constituent can be the remnant of various types of ellipsis. Nevertheless, syntax is not determinative regarding the distribution of ׀. It is a prosodic phenomenon that varies slightly at the phrasal and clausal levels, which we will address in the following sections.

#### 4.3.3.2 *Waw* with *Qamets* at the Phrase Level

Pretonic *waw* takes *qamets* at the phrase level at the end of a prosodic unit. The most conspicuous place for such a prosodic break is, not surprisingly, at the end of the phrase. This explains why *waw* takes the default schwa before the medial conjunct ׀ but a *qamets* before the final conjunct יִפֶּת׃ in (40).<sup>20</sup>

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<sup>20</sup> Surprisingly, Revell understands ׀ to have a pragmatic function, indicating the significance of a conjunct in context. He comments on Gen 9:18, and says that the *waw* does not take a *qamets* before Ham because “there is no need to single Ham out among the three sons of Noah” (2016:76, n. 13). But this is not a good contextual reading, because in the next clause the narrator indicates that Ham was the father of Canaan. And just a few verses later, Noah blames Ham for what happened in the tent (9:20–22, 24), and curses his son Canaan as a result (9:25–27). Moreover, it is untenable to hold that ׀ has a pragmatic function, since it only occurs before initial-accent words. There would be no comparable way for a narrator to indicate the significance of a final-accent word in the context.

- (40) שֵׁם וְחָם וַיָּפֶת (Gen 9:18)  
*šēm wə-ḥām wā-yāpēt*  
 Shem and-Ham and-Japheth  
 Shem and Ham and Japheth.

In fact, if an initial-accent, final conjunct at the phrase level is not followed by a modifier, the *waw* takes a *qamets* 97.8% of the time,<sup>21</sup> with only three exceptions as in (41).<sup>22</sup>

- (41) וְהִנֵּה אֶהְרֹן וְחֹרֶן עִמָּכֶם (Exod 24:14)  
*wə-hinnē 'ahārōn wə-ḥûr 'immā-kem*  
 and-behold Aaron and-Hur with-2MP  
 “Behold, Aaron and Hur are with you.”

As Revell (1981) points out, the exception of (41) may be due in part to the fact that the stressed vowel following conjunction *waw* is *shureq*.<sup>23</sup>

*Waw* takes a *qamets* almost invariably before an initial-accent, phrase-final conjunct. When the last conjunct is followed by a modifier, it is no longer in phrase-final position. Nevertheless, a clear pattern emerges, one Revell (1981:79) recognised long ago: “It may be generally true to say that where *qamets* is used, the following modifier modifies the group of nouns as a whole, but that where *qamets* is not used, it modifies the last word in the group.” In fact, if anything, Revell downplays the consistency of this pattern, which holds true for several different kinds of modifiers.

<sup>21</sup> There are 135 such instances in Genesis–2 Kings: Gen 1:2; 2:9, 17; 3:5, 22; 4:12; 8:3, 22; 9:18, 23; 10:1, 23; 13:14; 14:18, 19, 22; 18:7, 27; 19:24; 28:14; 31:44; 37:25; 41:11; 46:12, 21, 26; 49:25; Exod 2:12; 15:16, 18; 25:10[x3], 17[2x], 23, 33[2x]; 30:14; 34:19; 37:1[x3], 6[2x], 10, 19[2x]; 38:26; Lev 7:23; 22:27; 27:7; Num 1:3, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 45; 3:15, 22, 28, 34, 39, 40, 43, 50; 8:24; 14:18, 29; 16:14; 21:7; 22:40; 23:2, 4, 14, 30; 26:2, 4, 62; 32:11, 19; 35:4; Deut 1:39; 9:2; 14:5; 24:6; 25:15[2x]; 26:5; 28:36, 64; 29:22; Josh 15:29, 32, 46; 18:24; 19:3, 20; Judg 1:36; 19:19; 1 Sam 2:26; 9:2[x2]; 10:23; 14:19; 15:12; 16:13; 17:4; 24:12; 1 Kgs 5:12; 7:11, 31; 8:29, 59; 10:7; 16:10; 18:4, 5, 13; 20:1; 21:10, 13; 2 Kgs 3:21; 5:17; 6:15; 19:18.

<sup>22</sup> The other two examples are 1 Sam 22:13; 1 Kgs 18:45.

<sup>23</sup> For example, while the *waw* exceptionally takes a schwa when the stressed vowel is a *shureq* in Exod 24:14 and 1 Kgs 18:45, the other exception is with a *seghol* (1 Sam 22:13). Also, in my corpus, *waw* does take a *qamets* once before a stressed-vowel *shureq* (Gen 41:11). Nevertheless, it would not be surprising within a prosodic framework, which is the interface between phonology and syntax, that *shureq* could play a role in repelling the PEW of *qamets*. After all, *qamets* is a low vowel and *shureq* is a high vowel, and conjunction *waw* does have a preference for vowel assimilation (cf. §4.2).

The most common modifier in my data set is the appositive. When the appositive modifies the full coordinate complex, the *waw* on the last conjunct takes a *qamets* (42). When, however, the appositive modifies the last conjunct only, the *waw* takes a schwa (43).

- (42) וְשֵׁם-וְחָם וַיִּפֹּת בְּנֵי-נֹחַ (Gen 7:13)  
*wə-šēm wə-ḥām wā-yepēt banē nōaḥ*  
 and-Shem and-Ham and-Japheth sons.GEN Noah  
 Shem and Ham and Japheth, the sons of Noah.
- (43) יִמְנָה וְיִשְׂוָה וְיִשְׂוִי וְבְרִיעָה וְשָׂרָח אֲחֹתָם (Gen 46:17)  
*yimnā wə-yišwā wə-yišwī ū-bəri‘ā wə-šerah ‘āḥōt-ām*  
 Yimnah and-Ishvah and-Ishvi and-Beriah and-Serah sister-3MP  
 Yimnah and Ishvah and Ishvi and Beriah, and Serah their sister.

The minimal pair below relates to specification of a person’s age. When the conjoined numerals are modified by שָׁנָה, conjunction *waw* takes a *qamets* (44). When, however, שָׁנָה modifies each numeral, *waw* takes a schwa (45).<sup>24</sup>

- (44) וְאַבְרָהָם בֶּן-תְּשַׁע וְשָׁנָה (Gen 17:24)  
*wə-‘abrāhām ben tiš‘im wā-tēša‘ šānā*  
 and-Abraham son-GEN ninety and-nine year  
 Lit.: Abraham (was) a son of 90 and 9 year (i.e. 99 years old).
- (45) וַיְהִי אֲבָרָם בֶּן-תְּשַׁעִים שָׁנָה וְתֵשַׁע שָׁנִים (Gen 17:1)  
*wayhī ‘abrām ben tiš‘im šānā wə-tēša‘ šānîm*  
 be.WCIPFV.3MS Abram son-GEN ninety year and-nine years  
 Lit.: Abram was a son of 90 year and 9 years (i.e. 99 years old).

When an appositive modifies the entire coordinate complex ([42] and [44]), a pretonic *waw* that attaches to the final conjunct always takes a *qamets*, and this pattern is invariable.<sup>25</sup>

<sup>24</sup> Interestingly, only Genesis uses the construction of repeating the noun שָׁנָה in specifying a person’s age (Gen 16:16; 17:1; 23:1; 25:17).

<sup>25</sup> There are seventeen other instances where the appositive modifies the whole coordinate complex, so *waw* takes a *qamets* (Gen 50:22, 26; Lev 9:3; 27:32; Deut 20:1; Josh 24:29; 2 Sam 21:20; 1 Kgs 10:14; 16:8, 15; 2 Kgs 13:10; 14:2; 15:1, 13, 17; 18:2; 25:27). In addition, there are nine other instances where the appositive modifies the last conjunct only, so *waw* takes a schwa (Gen 16:16; 23:1; 25:17; Deut 29:6; 1 Sam 25:2; 1 Kgs 4:19; 8:63; 2 Kgs 5:5; 16:5).

This same pattern holds for other modifiers: adjectives (46),<sup>26</sup> relative clauses (47),<sup>27</sup> and prepositional phrases (47).<sup>28</sup> A pretonic *waw* on the final conjunct takes a *qamets* before a wide-scope modifier (which modifies the whole coordinate phrase) (a) and a schwa before a narrow-scope modifier (which modifies one conjunct only) (b).<sup>29</sup>

(46a) וְסוּסִים וְרֶכֶב רַב־מְאֹד: (Josh 11:4)  
*wə-sūs wā-rekeb rab ma'ōd*  
 and-horse and-chariot(s) many very  
 and very many horses and chariots.

(46b) וַיִּשְׁלַח־שָׁמָּה סוּסִים וְרֶכֶב וְחַיִל כָּבֵד (2 Kgs 6:14)  
*wayyišlah šāmm-ā sūsīm wə-rekeb wə-hayil kābēd*  
 send.WCIPFV.3MS there-LOC horses and-chariot(s) and-army heavy  
 There he sent horses and chariots and a great army.

(47a) לֹא־תִזְבַּח לַיהוָה אֱלֹהֶיךָ שׂוֹר וְשֶׂה אֲשֶׁר יְהִי בּוֹ מוֹם (Deut 17:1)  
*lō' tizbah l-yhwh 'ēlohē-kā šōr wā-sē 'āšer*  
 NEG sacrifice.IPFV.2MS to-YHWH God.2MS ox and-lamb that  
*yihyē b-ō mûm*  
 be.IPFV.3MS in-3MS blemish  
 “You shall not sacrifice to YHWH your God an ox or a lamb that has a blemish.”

(47b) לֹא־תִחְמָד אִשֶׁת רֵעֶךָ וְעַבְדּוֹ וְאִמָּתוֹ וְשׂוֹרוֹ וְחִמְרוֹ וְכֹל אֲשֶׁר לְרֵעֶךָ: (Exod 20:17)  
*lō' tahmōd 'ēšet rē'e-kā wə-'abd-ō wa-'āmāt-ō*  
 NEG desire.IPFV.2MS wife.GEN neighbor-2MS and-slave-3MS and-maid-3MS  
*wə-šōr-ō wa-ḥāmōr-ō wə-kōl 'āšer la-rē'e-kā*  
 and-ox-3MS and-donkey-3MS and-all.GEN that to-neighbor-2MS  
 “You shall not desire the wife of your neighbor, or his male or female slave, or his ox or donkey, or anything that belongs to your neighbor.”

<sup>26</sup> There are two other instances where the appositive modifies the whole coordinate complex, so the *waw* takes a *qamets* (Lev 22:23; Deut 25:13). In addition, there are seven other instances where the appositive modifies the last conjunct only, so the *waw* takes a schwa (Lev 14:10; Josh 17:14; 2 Sam 12:30; 1 Kgs 6:25; 10:2, 10, 11).

<sup>27</sup> I did not note any other instances in my data where a relative clause modified an initial-accent, final conjunct.

<sup>28</sup> There are eight other instances where the appositive modifies the whole coordinate complex, so the *waw* takes a *qamets* (Gen 4:14; Lev 9:4; Num 15:23; Deut 2:10; 9:14; Judg 5:8; 1 Sam 22:19; 2 Kgs 6:22). In addition, there are two other instances where the appositive modifies the last conjunct only, so the *waw* takes a schwa (Gen 30:33; 1 Sam 13:5).

<sup>29</sup> This distinction in scope also explains the contrasts on the previous page, as (42) and (44) have wide-scope modifiers, and (43) and (45) have narrow-scope modifiers.

(48a) עַם גָּדוֹל וְרַב וְרַם כְּעַנְקִים (Deut 2:21)  
 ‘am gādól wə-rab wā-rām kâ-‘ānāqîm  
 people great and-many and-high.PTCP.MS like.ART-Anakim  
 “a people great and many and tall as the Anakim.”

(48b) כָּל-עֵץ נִחְמָד לְמַרְאֵה וְטוֹב לְמַאֲכָל (Gen 2:9)  
 kol ‘ēš nehmad lə-mar’ê wə-tôb lə-ma’ākāl  
 all.GEN tree desirable.PTCP.MS to-appearance and-good to-food  
 every tree desirable for sight and good for food.

This pattern of modifier scope and *waw*-vocalisation proves useful for interpreting an ambiguous example in (49). If the PP modifier “in Israel” modifies both “city and mother,” this would be the only exception in my corpus where pretonic *waw* does not take a *qamets* before a wide-scope modifier. Thus, it is better to understand “mother in Israel” as a constituent phrase.<sup>30</sup>

(49) אַתָּה מְבַקֵּשׁ לְהַמִּית עִיר וְאִם בְּיִשְׂרָאֵל (2 Sam 20:19)  
 ‘attâ məbaqqēš lə-hāmîṭ ‘îr wə-‘ēm bə-yisrā’ēl  
 you.NOM.MS seek.PTCP.MS to-kill.INF city and-mother in-Israel  
 “You are seeking to kill a city and a mother in Israel.”

Moreover, ׀ as a phrase-final conjunct is joined by ׀ elsewhere (Ezek 22:7; Esth 2:7), so it is not clear why *waw* would not take a *qamets* in (49), if in fact the PP בְּיִשְׂרָאֵל is a wide-scope modifier.

A prosodic break does not only exist at the end of a phrase or before a wide-scope modifier, it can also occur in the middle of a longer phrase. Since ׀ is a reflex of PEW, it is natural that we find this form at phrase-medial prosodic breaks. One of these consistent

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<sup>30</sup> There are at least two interpretations of what “mother” means here. It could either refer to the woman who is speaking (Bergen 1996), or it could form a hendiadys with the first noun to refer to Abel as an important city worth the same veneration as a mother (Smith 1899). While not decisive, understanding the PP as a narrow-scope modifier probably favours the first interpretation, because the conjuncts of a hendiadys would not be well-balanced with a bare noun עִיר followed by a noun with PP modifier אִם בְּיִשְׂרָאֵל. Contextual factors are indecisive. On the one hand, the woman claims to be one of the faithful of Israel (2 Sam 20:18), so it makes sense for her to refer to herself as “a mother in Israel.” Nevertheless, Abel is an Israelite city (20:14, 20), and the woman goes on to declare that for Joab to continue besieging the city would be to “devour the inheritance of YHWH” (20:19), so the hendiadys view does have some merit.

patterns is that ׀ often occurs before null coordination, as in the following lists of goods (50) and numerals (51).<sup>31</sup>

(50) תָּבוֹא | אֲנִי תְּרִשִׁישׁ נְשִׂאת זָהָב וְכֶסֶף שְׁנֵהָבִים וְקָפִים וְתַבְּיִים: (1 Kgs 10:22)  
*tābô' ʾōnī taršīš nōśā'ēt zāhāb wā-ķeseḇ*  
 come.IPFV.3FS ship.GEN Tarshish carry-PTCP.FS gold and-silver  
*šenhabbîm wə-qōḇîm wə-tukkiyyîm*  
 ivory and-apes and-peacocks  
 A ship from Tarshish would come carrying gold and silver, Ø ivory and apes and peacocks.

(51) שֵׁשׁ־מֵאוֹת אֶלֶף וְאַלְף שְׁבַע מֵאוֹת וּשְׁלֹשִׁים: (Num 26:51)  
*šēš me'ōt 'elep wā-'ālep šaba' me'ōt û-šālōšîm*  
 six.GEN hundred thousand and-thousand seven.GEN hundreds and-thirty  
 six hundred and one thousand Ø seven hundred and thirty.

Similarly in (13), copied below, ׀ marks the second conjunct of each pair of antonyms, provided the conjunct is an initial-accent word, thus aligning with sub-constituency breaks.

(13) זֶרַע וְקָצִיר וְקָר וְחֹם וְקִיץ וְחָרֵף וְיוֹם וְלַיְלָה (Gen 8:22)  
*zera' wə-qāšîr wə-qōr wā-ḥōm wə-qayiš wā-ḥōreḇ*  
 seed and-harvest and-cold and-heat and-summer and-winter  
*wə-yôm wā-laylā*  
 and-day and-night  
 “seed and harvest, cold and heat, summer and winter, day and night”

It is natural to find a prosodic break between semantic pairs, so it is not surprising that ׀ as a reflex of PEW should be found in these environments.<sup>32</sup>

There are a couple of other mid-phrasal patterns with ׀ that may not at first clearly align with natural prosodic breaks, but even these fit within the prosodic view advanced here.

The first pattern is that *waw* variably takes a *qamets* before the second of three conjuncts. But

<sup>31</sup> This accords perfectly with the view that overt-and-null coordination marks sub-constituency (§6.3.1). Other examples of ׀ occurring before null coordination include Gen 36:13; 43:11; 46:21; Deut 29:16.

<sup>32</sup> Other clear example of semantic pairs include Gen 7:13; 28:14; Exod 35:22. The motivating factor for ׀ in the middle of a genealogical list is not as clear, but prosodic breaks must occur in the middle of any lengthy list, which is probably the motivation for *qamets* in the following mid-phrasal genealogy examples: Gen 25:4; 46:21; Exod 6:21; Josh 15:24, 55; 19:7, 25. However, one also finds that mid-phrase, pre-tonic *waw* also takes a schwa when it attaches to a name that has a conjunctive or disjunctive accent (Gen 10:2, 6, 10, 22, 23; 36:21; 46:10, 13, 24; Exod 6:15; Josh 15:21, 32; 19:2; 2 Sam 5:15). It is impossible to test the theory as it pertains to genealogical lists, because almost all of the names are otherwise unknown, so we have no way to know why certain sub-sets of names could naturally be prosodically joined together.

since coordination is a binary, hierarchical structure, the second conjunct must form a sub-constituent with, and thus be prosodically joined to, either the first (52) or third conjunct (53).

(52) [[Conjunct<sub>1</sub> &Conjunct<sub>2</sub>] &Conjunct<sub>3</sub>]

(53) [Conjunct<sub>1</sub> [&Conjunct<sub>2</sub> &Conjunct<sub>3</sub>]]

Thus, the prosodic pattern of (52) predicts that the penultimate conjunct would prefer a *qamets* (54),<sup>33</sup> and the pattern of (53) predicts that it should prefer a schwa (55):<sup>34</sup>

(54) וַיֹּאמֶר מֹשֶׁה אֶל-קֹרַח אֲתָהּ וְכָל-עֲדֻתָּךְ הֵיוּ לִפְנֵי יְהוָה אַתָּה וְהֵם וְאַהֲרֹן מָחָר:  
(Num 16:16)  
wayyō`mer mōšē `el qōrah `attâ wə-*kol*  
say.WCIPFV.3MS Moses to Korah you-NOM.MS and-all.GEN  
`ādātə-kā hěyû lipnē yhw̄h `attâ wā-hēm  
congregation-2MS be.IMP.2MP before YHWH you-NOM.MS and-they-NOM.M  
wə-`ahārōn māhār  
and-Aaron tomorrow  
Moses said to Korah, “As for you and all the congregation, be before YHWH  
—you and they and Aaron—tomorrow.”

(55) וַיְהִי-לִי שְׂוֹר וְחֲמֹר צֹאן וְעֶבֶד וְשִׁפְחָה (Gen 32:6)  
wayhî l-î šōr wa-*hāmōr* šō`n wə-`ebed wə-šipḥā  
be.WCIPFV.3MS to-1CS ox and-donkey flock and-slave and-maid  
“I have oxen and donkeys, flocks and male and female servants.”

In (54), Moses has already addressed Korah and his company before the imperative. Thus, when he explicates the null *pro*, he summarises by saying “you and they” before he adds the third conjunct “Aaron,” following the pattern of (52). Regarding (55), however, the final two conjuncts, “male and female servants,” form a pair to the exclusion of “flocks,” which follows the pattern of (53).

<sup>33</sup> A similar explanation can be given with *qamets* in the construction [[gold and silver] and bronze] (Exod 25:3; 35:5; 1 Chron 18:10), since [gold and silver] is often found as a pair with *qamets* (1 Kgs 10:22; Ezek 16:13; 28:4; Has 2:19; Zech 14:14; Ps 119:72; Esth 1:6; 1 Chron 29:3; 2 Chron 9:14, 21; 24:14). Like example (54), when the second of three conjuncts produces a *qamets*, it is almost invariably marked by a disjunctive accent (Gen 1:24; Exod 6:21; 25:3; 34:7; 35:5; Num 4:3, 23, 30, 35, 39, 43, 47; 16:16; Josh 6:21; 15:24, 42; Judg 6:4) The only exception is Gen 45:23.

<sup>34</sup> Unlike the patterning of *qamets*, there is no dominant pattern of schwa aligning with the accent on the second of three conjuncts. A third of the time the schwa naturally aligns with a conjunctive accent (Gen 9:18; 30:37; 32:6). Elsewhere, it aligns with a disjunctive, and the schwa seems to result from avoiding a clash with the *qamets* before the third conjunct (Lev 7:23; Deut 2:10, 21). In the last pattern, schwa aligns with a disjunctive with no discernible reason why *qamets* is not used (Exod 28:20; Josh 15:21; 19:2).

The other mid-phrasal pattern is a marked prosodic structure. Conjunction *waw* takes a *qamets* on multiple conjuncts in a row, which is very rare, producing a staccato effect.<sup>35</sup>

- (56) וְרָאָה מִן־הַמָּקוֹם אֲשֶׁר־אַתָּה שָׁם צְפֹנָה וְנִגְבָּה וְקִדְמָה וְיָמָּה: (Gen 13:14)  
*û-rə'ê min ham-māqôm `āšer `attâ šām šāpōn-â*  
 and-see.IMP.2MS from ART-place that you.NOM.MS there north-LOC  
*wā-neḡb-â wā-qēḏam-â wā-yāmm-â*  
 and-south-LOC and-east-LOC and-sea-LOC  
 “Look from the place where you are towards the north and towards the south  
 and towards the east and towards the west.”

- (57) וּבְנֵי יְהוּדָה עֵר וֹנָן וְשֵׁלָה וְפֶרֶץ וְזֵרַח (Gen 46:12)  
*û-bənê yaḥûḏâ `ēr wə-`ônān wə-šēlâ wā-pēreš wā-zārah*  
 and-sons.GEN Judah Er and-Onan and-Shelah and-Perez and-Zerah  
 The sons of Judah were Er and Onan and Shelah and Perez and Zerah.

Although I do not hold to a semantic-pragmatic interpretation of ׀, it may be that the marked prosodic structure of repeating ׀ within the phrase in (57) does have a pragmatic effect of highlighting Perez, who would carry the genealogy unto David (cf. Ruth 4:18–22). Similarly, while the adverbs in (56) may be derived from clausal ellipsis,<sup>36</sup> the staccato effect emphasises the expansive nature of the land promised to Abraham.

#### 4.3.3.3 *Waw* with *Qamets* at the Clause Level

A clause-level, pretonic *waw* also takes *qamets* at the end of a prosodic unit. The most conspicuous place for a prosodic break at the clause level is, not surprisingly, at the end of a clause. What is actually surprising, then, is that *waw* takes a *qamets* in this syntactic position only 69% of the time. But clausal ׀ is not in free distribution; instead, these distributional facts demonstrate that it is prosody, not strictly syntax, that determines the distribution of ׀. First,

<sup>35</sup> Revell (2016:76) provides three other instances: Isa 24:17; Jer 48:43; Ezek 2:10. He also seems to have a similar view concerning the effect in (56): the repetition “presumably indicates that each word was pronounced separately.”

<sup>36</sup> One can look in only one cardinal direction at a time, so the semantics of this verb with the repeated adverbs require four distinct actions and, thus, four clauses. Clausal ellipsis also seems to occur when relating a vision where “a ram is goring to the west and to the north and to the east” (Dan 8:4). A ram can gore in only one cardinal direction at a time, thus requiring three actions corresponding to the three adverbs.

we will consider pre-tonic *waw* on a clause-final constituent, then non-clause-final imperatives, and then non-clause-final *weqatal* verbs.

The distribution of pre-tonic *waw* at the end of a clause is very predictable. If it occurs at an Intonational-phrase boundary (marked by *etnaḥta* or *silluq*), as in (31), it occurs as  $\dot{\text{w}}$ .<sup>37</sup>

- (31) וְעַתָּה הִנֵּה אֵשֶׁתְּךָ קַח וּלְךָ: (Gen 12:19)  
*wə-‘attā hinnē ’istə-kā qah wā-lēk*  
 and-now behold wife-2MS take.IMP.2MS and-walk.IMP.2MS  
 “And now, here is your wife—take and go!”

All other clause-level instances of  $\dot{\text{w}}$  occur at the end of a prosodic unit,<sup>38</sup> while  $\text{w}$  occurs at the beginning of a prosodic unit, even when it occurs on a clause-final constituent.<sup>39</sup>

There is one environment where a pretonic *waw* on a clause-final constituent variably takes *qamets*. This variation occurs with a coordinated imperative before a ground clause. The *waw* in (58) takes a *qamets*, while the *waw* in (59) takes a schwa.

- (58) אִם-אָמַרְ אָמַר לְנֹעַר הִנֵּה הַחֲצִים | מִמֶּנָּה וְהִנֵּה קַחְנֹו | וּבֹאָה בִּי-שְׁלוֹם לְךָ  
 (1 Sam 20:21)  
*’im ‘āmōr ‘ōmar lan-na‘ar hinnē ha-ḥiṣṣim mimmə-kā*  
 if say.INF say.IPFV.1CS to.ART-lad behold ART-arrows from-2MS  
*wā-hēnnā qāḥe-nnū wā-bō‘ā kī šālôm lə-kā*  
 and-hither take.IMP.2MS-3MS and-come.IMP.2MS because peace to-2MS  
 “If I should say to the lad, ‘Behold, the arrows are on this side of you,’ take it<sup>40</sup>  
 and come, because it is safe for you.”

<sup>37</sup> I found 38 such examples in my corpus: Gen 12:19; 19:19; 24:51; 42:33; 44:9, 22, 31; 49:23; Exod 1:16; 9:19; 12:32; 21:28, 35; 22:1; 28:43; 33:20; Num 4:15, 20; 21:8, 9; Deut 4:42; 5:24, 25; 13:11; 17:5; 19:4, 5[2x], 11, 12; Judg 9:29; 1 Sam 29:10; 2 Sam 11:15; 1 Kgs 1:52; 17:12; 2 Kgs 4:24; 7:4[2x].

<sup>38</sup> These include a *weqatal* as the result of a previous clause (Exod 21:12; Deut 21:21; 22:21, 24; 1 Sam 12:2; 26:10), the remnant of ellipsis (1 Sam 9:4; 2 Kgs 10:15), and the last imperative in a list (2 Kgs 4:29).

<sup>39</sup> These constructions include the first of two contiguous imperatives (Gen 19:34; 27:13, 43; Exod 17:9; Josh 5:2; 8:1; 1 Sam 9:3; 2 Sam 2 Sam 12:16; 14:21; 1 Kgs 20:22), the first of two contiguous *weqatal* verbs (Josh 24:20; 1 Kgs 1:35; 8:42, 47; 17:12; 19:15; 2 Kgs 4:4), a *weqatal* verb before an alternative (Exod 22:9; 2 Kgs 9:3), and an imperative before a purpose clause (Judg 19:6; 1 Sam 16:1; 1 Kgs 18:44).

<sup>40</sup> The *te’amim* suggest both imperatives address David, which makes the syntax of v. 21 match that of v. 22, where Jonathan begins addressing David with an asyndetic imperative. Also, the use of *qamets* on the second imperative suggests this translation, because *waw* regularly takes *qamets* when conjoining contiguous imperatives addressed to the same person: Gen 12:19; 24:51; 42:33; Exod 12:32; 32:27; Judg 9:29; 1 Kgs 18:44; 2 Kgs 4:24; Isa 8:9; 12:6; 29:9; 45:20; Jer 47:6; Ezek 39:17; Joel 4:11; Mic 1:16; 4:10, 13; Zeph 2:1; Prov 3:28.

- (59) מְהֵרָה וְלָכָה כִּי־פָשְׁטוּ פְּלִשְׁתִּים עַל־הָאָרֶץ: (1 Sam 23:27)  
*mahārā wə-lēkâ kî pāšəṭû ‘al hā-’āreš*  
 hurry.IMP.2MS and-walk.IMP.2MS because stretch.out-PFV.3CP on ART-land  
 “Hurry and go, because the Philistines have stretched out upon the land.”

It is hard to say anything meaningful about the variable use of *qamets* in this environment, because these are the only two examples. It may be, though, that (59) is not an exception, and that the schwa is a result of the first imperative functioning adverbially with the second imperative being the true verb.<sup>41</sup>

Clause-level *waw* can also take *qamets* when it does not coordinate a clause-final constituent. There is variation, but again the variation is predictable and determined by prosody. When coordinated, contiguous imperatives form a pair of synonyms or antonyms—thus forming a prosodic unit—the second imperative is coordinated with ַ (60)<sup>42</sup>; however, if the imperatives form a sequence, the second imperative is coordinated with ַ (61).<sup>43</sup>

- (60) עֲבְרוּ וְשׁוּבוּ מִשַּׁעַר לְשַׁעַר בְּמַחֲנֶה (Exod 32:27)  
*‘ibrû wā-šūbû miš-ša‘ar lā-ša‘ar bam-mahānē*  
 pass.IMP.2MP and-return.IMP.2MP from-gate to-gate in.ART-camp  
 “Pass over and return, from gate to gate, within the camp.”

- (61) עֲבְרוּ וְסָבְבוּ אֶת־הָעִיר (Josh 6:7)  
*‘ibrû wə-sōbbû ‘et hā-‘ir*  
 pass.IMP.2MP and-go.around.IMP.2MP ACC ART-city  
 “Pass over and go around the city.”

<sup>41</sup> When “hurry” occurs as the first of two contiguous imperatives elsewhere, there is usually no *waw* that conjoins them (Gen 19:22; Judg 9:48; Pss 69:18; 102:3; 143:7; Esth 6:10). Only once elsewhere is it conjoined by a *waw* (Gen 45:9), where it still seems to have an adverbial function.

<sup>42</sup> In all other examples the paired imperatives are synonyms. Usually the paired synonyms are followed by a vocative (Isa 12:6; Joel 4:11; Mic 4:10, 13; Zeph 2:1). Once, they occur before a PP adjunct (Mic 1:16).

<sup>43</sup> Most other contiguous imperatives joined by *waw* do not form a pair. The following complement or adjunct goes with the second imperative, not the first (1 Sam 20:31; 29:7; 2 Sam 15:19; 2 Kgs 6:3; 14:10; Jer 49:14; Ezek 21:19; 40:4; Ps 139:23; Job 21:5; 35:5). There are at most two exceptions with conjoined synonymous imperatives. For the first possible exception, לְכִי וּבְאִי (1 Kgs 1:13), the imperatives are not joined by a *waw* elsewhere (Ezek 3:11), and usually form one prosodic word (Gen 45:17; 2 Kgs 5:5; Isa 22:15; Ezek 3:4). Like example (59), it may be that the first imperative modifies the second in some way. And regarding the second possible exception, כִּי־אִם־שִׁישׁוּ וְגִילוּ (Isa 65:18), the first imperative has two extra clitics, so the imperatives do not have equal weight.

The initial imperative is identical in both examples. But in (60), the imperatives form an antonym pair that take an antonym-pair PP for a complement. Conversely, in (61), the imperatives do not form a pair; instead, the complement goes with the second imperative only. This phenomenon is equivalent to phrasal *waw* taking a *qamets* before a wide-scope modifier and a schwa before a narrow-scope modifier (see §4.3.3.2).

There is a similar construction that suggests sub-constituency, which is when ׀ occurs before the second of three imperatives, whether the third imperative shows overt (62) or null (63) coordination.

- (62) רָעוּ עַמִּים וְחָתוּ וְהֶאֱזִינוּ כָּל מְרַחְקֵי-אָרֶץ (Isa 8:9)  
*rō'û 'ammîm wā-ḥōttû wə-ha'āzînu kōl*  
 evil.IMP.2MP peoples and-dismay.IMP.2MP and-give.ear.IMP.2MP all-GEN  
*merḥaqqê 'āreṣ*  
 distances-GEN earth  
 “Be evil, peoples, and be dismayed; and give ear, all distant places of the earth.”

- (63) הִקְבְּצוּ וּבֵאוּ הָאֲסָפוּ מִסָּבִיב (Ezek 39:17)  
*hiqqābəṣû wā-bō'û hē'āsəpû mis-sābīb*  
 gathered.IMP.2MP and-come.IMP.2MP gathered.IMP.2MP from-around  
 “Be gathered and come; be gathered all around.”

In both (62) and (63), an intonational contour sets the first two imperatives apart from the third. Each example consists of two poetic lines, the line break occurring after the imperative marked with a ׀. In comparing the paired poetic lines in each example, while they may contain a different number of imperatives (2 + 1), they maintain balance with an equal number of prosodic words: 3 + 3 in (62) and 2 + 2 in (63).

When an initial-accent *weqatal* verb is followed by a constituent made up of one prosodic word, the *waw* variably takes a *qamets*. In (64), the same verb followed by the same modifier takes a *qamets* in one instance (a), but not the other (b).

(64a) אָס־אָמַרְנוּ נְבוֹא הָעִיר וְהָרָעַב בְּעִיר וּמָתְנוּ שָׁם (2 Kgs 7:4)  
 'im 'āmarnū nābō' hā-'îr wə-hā-rā'āb bā-'îr  
 if say.PFV.1CP enter.COH.1CP ART-city and-ART-famine in.ART-city  
 wāmatnū šām  
 die.WCPFV.1CP there  
 “If we say, ‘Let us enter the city’—and there is a famine in the city—we will die there.”

(64b) וְאַהֲרֹן יֵאָסֵף וּמָת שָׁם: (Num 20:26)  
 wə-'ahārōn yē'āsēp ūmēt šām  
 and-Aaron be.gathered.IPFV.3MS die.WCPFV.3MS there  
 “And Aaron will be gathered and die there.”

The default *shureq*-example (64b) reframes the previous *yiqtol* verb, but the *qamets*-example (64a) marks the beginning of an apodosis. Since BH does not have a formal apodosis marker, the transition is indicated, at least partially, by prosody. The apodosis receives greater intonational weight, thereby attracting a pretonic *qamets* (64a).<sup>44</sup>

Finally, some of the variation appears to be due to phonology. For example, when a one-prosodic-word PP follows a *weqatal*, the word “live” always takes a *waw* with *qamets* (65),<sup>45</sup> and the word “die” always takes a *shureq* (66).<sup>46</sup>

(65) אֲשֶׁר יַעֲשֶׂה אֹתָם הָאָדָם וְחֵי בָהֶם (Lev 18:5)  
 'āšer ya'āšē 'ōt-ām hā-'ādām wāḥay bā-hem  
 that do.IPFV.3MS ACC-3MP ART-man live.WCPFV.3MS in-3MP  
 “The man who does them shall live because of them.”

(66) בְּשׁוּב־צְדִיק מִצְדִּיקְתּוֹ וְעָשָׂה עוֹל וּמָת בָּם: (Ezek 33:18)  
 bə-šūb šaddīq miš-šidqāt-ō wə'āsā  
 in-return.INF righteous.ADJ.MS from-righteousness-3MS do.WCPFV.3MS  
 'āwel ūmēt b-ām  
 injustice die.WCPFV.3MS in-3MP  
 “When a righteous man returns from his righteousness and does injustice, he shall die because of them.”

<sup>44</sup> There may be a greater tendency to mark an apodosis with a *qamets*, but this is not an automatic rule. The same *weqatal* verb takes a *qamets* when followed by a one-prosodic-word subject in an unmarked conditional construction (Gen 33:13), but not in a marked conditional construction (Deut 22:22). Yet even this variation has sub-patterns. For example, a *weqatal* followed by a one-prosodic-word subject will not take a *qamets* if that subject is in pausal form (2 Sam 12:22; 1 Kgs 14:12).

<sup>45</sup> The other instances are Gen 3:22; Lev 25:35; Ezek 20:11, 13, 21.

<sup>46</sup> The other instances are Lev 22:9; Ezek 18:26.

On the one hand, the *weqatal* verb “die” resists the *qamets* in pretonic position (64), because the labial consonant *mem* prefers the dissimilated coordinator allophone ʔ (Bat-El 1997). On the other hand, the *weqatal* verb “live” welcomes the *qamets* in the same environment (63), because the pharyngeal *het* prefers an assimilated a-type vowel, which is a low vowel.

#### 4.3.3.4 Summary

As a reflex of prosodic end-weight (PEW), conjunction *waw* takes a *qamets* in a position of pretonic stress at a prosodic break. At the phrase level, the prosodic break regularly produces *qamets* at the end of a phrase and on the final conjunct before a wide-scope modifier. The distribution of the *qamets* vowel is more varied elsewhere in the middle of the phrase—within a longer list and attached to the second of three conjuncts—but the distribution still aligns with sub-constituency breaks, supporting the hypothesis that coordination is a binary, hierarchical syntactic structure. At the clause-level, pretonic *waw* consistently takes a *qamets* at the end of a multi-clause prosodic unit. Finally, ʔ can occur between two imperatives that form a pair and jointly take one complement, and it can join two imperatives together to the exclusion of a third. This suggests that the intonational contours governing *waw* at the discourse level match those at the syntax level.

#### 4.4 Conjunct Binding

There is one more set of data that naturally results from coordination being a hierarchical structure: using a pronoun to bind the second conjunct to the first conjunct.

- (67) וַיְבָרֵךְ אֱלֹהִים אֶת־נֹחַ וְאֶת־בָּנָיו (Gen 9:1)  
*wayəbāreḵ ʿēlōhîm ʿet nōaḥ wə-ʿet bānāy-w*  
 bless.WCIPFV.3MS God ACC Noah and-ACC sons-3MS  
 God blessed Noah<sub>i</sub> and his<sub>i</sub> sons.

While there is a coreferential relationship in “Noah<sub>i</sub> and his<sub>i</sub> sons” (67), the same would presumably not hold in the reversed order, “his<sub>i</sub> sons and Noah<sub>j</sub>.” The external conjunct higher up in the structure is able to c-command, and thus bind, the pronoun in the internal conjunct lower in the structure. We cannot ask native speakers to provide acceptability judgments in order to prove that the coreference between noun and pronoun would be lost if the order of conjuncts is inverted. Nevertheless, it is instructive that all 167 examples of NP conjunct binding appear in the same order, using a pronoun to bind the second conjunct to the first.<sup>47</sup>

The most common form of conjunct binding is when a coreferential pronoun attaches to the second conjunct, as in (67). However, the pronoun can also attach to an appositive modifier (68), appear within a relative clause (69), and is attested within coordinate PPs (70) and TPs (71).

- (68) וַיֹּאמֶר אַבְיִמֶלֶךְ וּפִיכֹל שָׂר־צְבָאוֹ אֶל-אַבְרָהָם (Gen 21:22)  
*wayyō`mer`abîmelek û-pîkōl`sar`šabā`-ô`el`abrāhām*  
 say.WCIPFV.3MS Abimelech and-Phicol chief.GEN army-3MS to Abraham  
 Abimelech<sub>i</sub> and Phicol the commander of his<sub>i</sub> army said to Abraham.

- (69) וַיִּקַּם הַשָּׂדֵה וְהַמְעָרָה אֲשֶׁר-בּוֹ לְאַבְרָהָם לְאַחֲזַת-קָבֵר (Gen 23:20)  
*wayyāqom`haś-śādē wə-ham-mə`ārā`āšer b-ô`l-`abrāhām*  
 arise.WCIPFV.3MS ART-field and-ART-cave that in-3MS to-Abraham  
*la-`ahuzzat`qāber*  
 to-property.GEN grave  
 The field<sub>i</sub> and the cave that was it<sub>i</sub> in became Abraham’s as a burial property.

- (70) דַּבֵּר אֶל-אַהֲרֹן וְאֶל-בָּנָיו (Lev 6:18)  
*dabbēr`el`ahārōn wə-`el`bānāy-w*  
 speak.IMP.2MS to Aaron and-to sons-3MS  
 “Speak to Aaron<sub>i</sub> and to his<sub>i</sub> sons.”

<sup>47</sup> Gen 2:1, 25; 3:8; 7:2[x2], 7, 13, 23; 8:1, 18; 9:1; 14:5, 12, 16, 17; 17:26; 20:17; 21:10, 22, 32; 22:21; 23:17, 20; 24:59 [x2], 61; 25:10; 33:2, 7; 34:13, 20; 41:8; 44:14; 46:1, 6, 8; 47:1; 49:31[x2], 32; 50:17; Exod 1:1; 5:6, 10; 14:5, 9, 23; 15:1, 4, 21; 17:13; 18:16; 27:10, 11, 21; 28:1, 41; 29:4, 9[x2], 10, 14, 15, 19, 32, 43; 30:19, 30; 35:11, 12, 13, 14, 15, 16, 17, 18, 19; 36:38; 37:16, 17, 20; 38:10, 11, 12, 17; 39:33, 35, 36, 37, 39, 41; 40:9, 10, 11, 12, 31; Lev 6:2, 9, 13; 8:2, 6, 10, 11, 14, 17, 18, 22, 30, 31, 36; 14:45; 18:17; 20:14; 25:33; Num 1:50; 3:10, 31, 36, 37, 38; 4:5, 9, 15, 16, 19, 25, 27, 31, 32; 7:1, 87; 8:8; 11:16; 16:6, 27; 20:8, 11, 25, 26; 26:59; 28:9, 10; 29:6, 11, 16, 19, 22, 25, 28, 31, 34, 38; 31:9; 32:42; Deut 2:24, 31; 3:3; 6:17; 10:13, 14; 11:2; 13:17; 22:15; 29:19, 21; 32:22; 34:11.

- (71) וַיָּבֹא אַבְרָהָם לְסַפֵּד לְשָׂרָה וּלְבִכּוֹתָהּ: (Gen 23:2)  
*wayyābō' 'abrāhām li-spōd lə-šārā wə-libkōt-ā*  
 come.WCIPFV.3MS Abraham to-mourn.INF to-Sarah and-to-cry.INF-3FS  
 Abraham came to mourn for Sarah<sub>i</sub> and to weep for her<sub>i</sub>.

In all examples of conjunct binding, the coreferential pronoun occurs after the initial R-expression.<sup>48</sup> If the conjuncts were reversed, the pronoun could not refer to the same person.

Conjunct binding also produces various patterns of sub-constituency, which aligns with the hierarchical structure of coordination. The conjunct binding in (72) results in two pairs of conjuncts, and the pronoun in (73) binds the third conjunct to the first two.

- (72) וַיִּמְשַׁח אֶת־הַמִּזְבֵּחַ וְאֶת־כָּל־כֵּלָיו וְאֶת־הַכִּיּוֹר וְאֶת־כַּנּוֹ וְלִקְדָּשָׁם: (Lev 8:11)  
*wayyimšah 'et ham-mizbēaḥ wə-'et kol kēlāy-w*  
 anoint.WCIPFV.3MS ACC ART-altar and-ACC all-GEN utensils-3MS  
*wə-'et hak-kiyyōr wə-'et kann-ō lə-qaddāš-ām*  
 and-ACC ART-basin and-ACC stand-3MS to-consecrate.INF-3MP  
 He anointed [the altar<sub>i</sub> and all its<sub>i</sub> utensils] and [the basin<sub>j</sub> and its<sub>j</sub> stand] in order to consecrate them.

- (73) וַתֵּלֶד לְעַמְרָם אֶת־אַהֲרֹן וְאֶת־מֹשֶׁה וְאֵת מִרְיָם אֶחָתָם: (Num 26:59)  
*wattēled lə-'amrām 'et 'ahārōn wə-'et mōšē wə-'et*  
 birth.WCIPFV.3FS to-Amram ACC Aaron and-ACC Moses and-ACC  
*miryām 'āḥōt-ām*  
 Miriam sister-3MP  
 She bore to Amram<sub>i</sub> [Aaron and Moses]<sub>j</sub> and Miriam<sub>j</sub> their<sub>j</sub> sister.

The hierarchical syntactic structure is especially crucial in (73). There needs to be a syntactic node that excludes *Amram<sub>i</sub>* but includes both *Aaron and Moses<sub>j</sub>* in order to bind *their<sub>j</sub> sister*.

#### 4.5 Summary

There are two important implications from understanding coordination as a hierarchical, rather than a flat, syntactic structure. First, the coordinator forms a sub-constituent with one conjunct. This is clear in Hebrew, since *waw* is a proclitic to the internal conjunct. There is

<sup>48</sup> There are 67 examples of conjunct binding in PP coordination: Gen 3:21; 4:4[x2], 5; 9:8; 26:11; 41:37; 45:16; 49:26; Exod 5:21; 7:19, 20; 8:25, 27; 14:4, 17, 18, 26; 18:16; 28:4, 43; 29:20, 21[x2], 24, 28, 35, 41; 39:27; Lev 2:3, 10; 6:18; 7:31, 34; 8:27, 31; 20:5; 22:2; 24:9; 8:23, 30; 14:14, 17, 25, 28; Num 1:50; 3:9, 48, 51; 4:16; 6:23; 8:13, 19, 22; 9:14; 15:26; 16:5; 17:5; 21:24; 22:40; Deut 1:16; 6:22; 9:27; 11:3; 28:54; 29:1, 11. There are 5 examples of conjunct binding in TP coordination: Gen 23:2; Deut 7:8; 10:8; 11:13, 22.

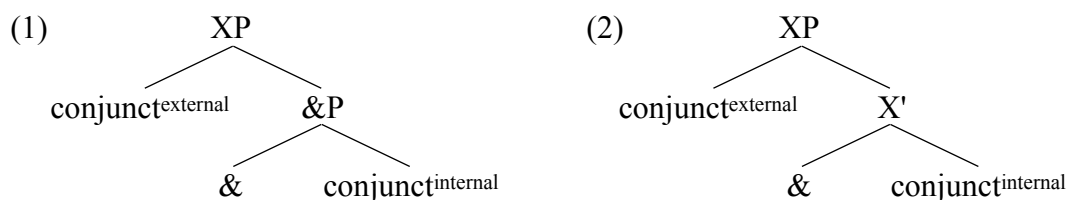
such a strong bond between coordinator and internal conjunct that the allophones of *waw* are determined either by the phonology of the internal conjunct or by how the internal conjunct aligns with prosodic breaks within the Phonological phrase or Intonational phrase. Second, it is not always possible to reverse the order of the conjuncts without also changing meaning. While there is a coreferential relationship in “Noah<sub>i</sub> and his<sub>i</sub> sons,” the same does not hold in “his<sub>i</sub> sons and Noah<sub>j</sub>.” The hierarchical structure of coordination naturally produces the first conjunct as primary, and this leads to a number of asymmetries in coordination elsewhere in Hebrew, which will be discussed in chapters six and eight.

This chapter has addressed the implications of coordination being a hierarchical, rather than a flat, structure. The next chapter addresses the BH phrasal coordination data that result from the conjuncts being in a complementation, rather than an adjunction, relationship.

## CHAPTER 5: THE CONJUNCTS FUNCTION AS SPECIFIER AND COMPLEMENT

### 5.1 Introduction

In §3.2.2, I argued from a generative perspective that the conjuncts function as specifier and complement. The main difference between adjunction and complementation structure is that adjunction asserts that the constituent of coordinator and internal conjunct is a maximal projection &P (1), while complementation asserts an intermediate projection X' (2).



The adjunction model (1) predicts movement of the maximal projection, while the complementation model (2) blocks movement with the intermediate projection.

In the following sections, I first show how adjunction wrongly predicts movement for Biblical Hebrew (§5.2). Then I show how complementation can produce all the data of split coordination (§5.3), initial coordination (§5.4), and final coordination (§5.5).

### 5.2 No Conjunct Movement

Adjunction is not able to account for all the coordination data cross-linguistically (see §3.2.2), nor is it able to account for all of the BH data. Example (3) is one such instance that cannot be produced via movement.

- (3) אֵלֶּה | בְּנֵי לֵאָה אֲשֶׁר יָלְדָה לְיַעֲקֹב בְּפַדְן אֲרָם וְאֵת דִּינָה בְּתוֹ (Gen 46:15)  
 'ēllē bānē lē'ā 'āšer yālādā lə-ya'āqōb bə-pāddan 'ārām  
 these sons.GEN Leah which bear.PFV.3FS to-Jacob in-Paddan Aram  
 wə-'ēt dīnā bitt-ō  
 and-ACC Dinah daughter-3MS  
 These are the sons of Leah, whom she bore to Jacob in Paddan-Aram, and  
 Dinah his daughter.

What is curious about the final conjunct (וְאֵת דִּינָה בְּתוֹ) is the presence of the object marker, אֵת, and the pronoun on the appositive, בְּתוֹ. The object marker rules out coordination with the matrix clause, and the pronoun binding on the appositive precludes movement out of the relative clause (RC).

The occurrence of אֵת with דִּינָה is a prototypical use of differential object marking (DOM; Bekins 2012, 2016). The object marker occurs before *Dinah*, a human-referring proper noun, which is high on the animacy and definiteness scales, thus marking *Dinah* as a grammatical object. There can be no coordination with the matrix clause (“These are ...”), because the matrix clause has a null copula, which is not a transitive verb and, therefore, cannot license accusative case for *Dinah*.

The אֵת before דִּינָה is not licensed by the matrix clause, but by the bivalent verb in the RC. This can be seen by comparing the RC (4) to an equivalent statement about Leah’s servant, Zilpah, a few verses later (5). The verb יָלַד licenses accusative case.

- (4) אֲשֶׁר יָלְדָה לְיַעֲקֹב לְיַעֲקֹב (Gen 46:15)  
 'āšer yālādā lə-ya'āqōb  
 which bear.PFV.3FS to-Jacob  
 whom she bore to Jacob
- (5) וְתָלַד אֶת-אֵלֶּה לְיַעֲקֹב (Gen 46:18)  
 wattēled 'et 'ēllē lə-ya'āqōb  
 bear.WCIPFV.3FS ACC these to-Jacob  
 She bore these to Jacob.

Moreover, we can compare (6), a condensed morphological representation of (3), with an identical syntactic construction (7). Here we see that there is a null pronoun complement within the RC of (6) that corresponds to the same position as the resumptive pronoun in (7).

- (6) אֵלֶּה | בְּנֵי לֵאָה אֲשֶׁר יָלְדָהּ לִיעֶקֶב בְּפַדַן אֲרָם וְאֵת דִּינָה בְתוֹ (Gen 46:15)  
 These are the sons<sub>i</sub> of Leah<sub>j</sub>, *wh<sub>i</sub>* that (she<sub>j</sub>) bore \_\_\_<sub>i</sub> to Jacob in Paddan-Aram, and Dinah his daughter.
- (7) וְשֵׁם | אִשְׁתּוֹ עַמְרָם יוֹכְבֵד בַּת־לֵוִי אֲשֶׁר יָלְדָהּ אֶתָּהּ לְלֵוִי בְּמִצְרַיִם (Num 26:59)  
*wə-šēm 'ēšet 'amrām yôkebed bat lēwī*  
 and-name.GEN name.GEN Amram Jochebed daughter.GEN Levi  
*'āšer yālādâ 'ōt-āh lə-lēwī bə-miṣrāyim*  
 which bear.PFV.3FS ACC-3FS to-Levi in-Egypt  
 And the name of the wife of Amram was Jochebed<sub>i</sub> the daughter of Levi<sub>i</sub>, *wh<sub>i</sub>* that (she<sub>j</sub>) bore her<sub>i</sub> to Levi in Egypt.

Both (6) and (7) have a relative head that functions as the complement of a null copula in the matrix clause and the complement of יָלְדָהּ in the RC, which in turn is followed by a beneficiary PP adjunct (*to Jacob//to Levi*) and a location PP adjunct (*in Paddan-Aram//in Egypt*). The only difference is the resumptive in (7),<sup>1</sup> which is critical, because the position of the resumptive in (7) indicates the base-generated position for *Dinah* in the RC (6) for the movement analysis.

The Achilles' heal for the movement analysis, however, is that the presence of pronoun binding precludes rightward movement (extraposition) out of the RC. If the constituent *Dinah*

<sup>1</sup> Even the presence of the resumptive pronoun in (7) does not indicate a difference in information structure (e.g., Focus-marking). The resumptive in Num 26:59 is required for syntactic reasons, whereas it is not in Gen 46:15. In both his unpublished PhD thesis and later substantially-revised monograph, Holmstedt categorises the overt resumption in Num 26:59 as “critical for clearly identifying the relative head when multiple possible antecedents exist in the context” (2016:180; cf. 2002:105). While *Levi* is superficially a possible antecedent, he could not be the subject of the 3FS verb for syntactic reasons, nor the complement for semantic reasons (his daughter cannot give birth to him). According to Holmstedt's categories, Gen 46:15 (which he does not categorise) would also be ambiguous with multiple possible antecedents for the relative head due to the presence of “Leah,” so the lack of resumption is left unexplained. Instead, the resumptive in Num 26:59 seems to be required for verbal valency: to disambiguate whether the relative head is functioning as the subject or complement of the verb (cf. Holmstedt 2016:182). Without the resumptive it would be possible, if not more natural, to read *Jochebed* as the one giving birth in Num 26:59. With the disambiguating resumptive, however, it is clear that Jochebed is the one born and her unnamed mother is the one who gave birth. The parallel in Gen 46:15, however, does not need a disambiguating resumptive. Since the relative head is “the sons of Leah,” it is most natural to assume that Leah bore her sons in Paddan-Aram. With resumption unnecessary, it is left null.

*his daughter* is initially generated before the PP adjunct *Jacob*, as the parallel with (7) suggests, the later R-expression *Jacob* would not be able to bind the earlier pronoun *his*, as (8) demonstrates.

- (8) \*These are the sons<sub>i</sub> of Leah<sub>j</sub>, *wh<sub>i</sub>* that (she<sub>j</sub>) bore \_\_\_\_<sub>i</sub> [and Dinah his<sub>i</sub> daughter]<sub>k</sub> to Jacob<sub>m</sub> in Paddan-Aram, [and Dinah his<sub>i</sub> daughter]<sub>k</sub>.

Pronoun binding could be licensed if the complement complex is generated after the adjunct PP *to Jacob* (9), but this contradicts (7), that the verbal complement is generated before the adjunct.

- (9) \*These are the sons<sub>i</sub> of Leah<sub>j</sub>, *wh<sub>i</sub>* that (she<sub>j</sub>) bore to Jacob<sub>i</sub> \_\_\_\_<sub>i</sub> [and Dinah his<sub>i</sub> daughter]<sub>k</sub> in Paddan-Aram, [and Dinah his<sub>i</sub> daughter]<sub>k</sub>.

To corroborate the evidence of (7), I searched for other bivalent verbs with an overt pronoun complement followed by a PP adjunct headed by  $\dot{\text{ל}}$ . In such cases, the pronoun complement consistently occurs between the verb and the adjunct.<sup>2</sup>

According to the movement hypothesis, the conjunct *Dinah his daughter* must be generated within the RC between the verb and the PP adjunct *to Jacob*, but this is the very place where the R-expression *Jacob* cannot bind the pronoun *his*. Thus, the derivation would crash before the conjunct has an opportunity to move rightward out of the RC. Adjunction is

<sup>2</sup> לָקַח (Gen 12:19; Exod 6:7; Num 8:16; Judg 14:2), פָּתַר (Gen 41:8), אָסַר (Gen 42:24), הֶחֱטִיא (Exod 23:33), הִקְרִיב (Lev 2:12), שָׁלַח (Lev 16:10), הִתְנַחֵל (Lev 25:46), הִנִּיף (Num 8:13), הִקְדִּישׁ (Num 8:17), הִזְקִיעַ (Num 25:4), צָנְהָה (Num 27:19), חָלַק (Deut 4:19), הִקִּים (Deut 29:12), הִכָּה (Josh 8:24; 19:47; Judg 18:27), כָּתַב (Josh 18:4), הִתְחַלֵּק (Josh 18:5), מָשַׁח (Judg 9:15), הִסִּיד (2 Sam 23:16; 1 Chron 11:18), הִבִּיא (1 Kgs 1:3), מָכַר (Isa 50:1), מָנָה (Isa 65:12), הֶעֱבִיר (Ezek 16:21), הוֹצִיא (Ezek 20:22), הֶעֱלָה (Ezek 43:24), דָּבַר (Ezek 44:5), הִפִּיל (Ezek 47:22). In fact the one outlier (i) also contradicts the extraposition analysis of (9). In (i) the PP adjunct intervenes between the verb and its pronoun complement.

- (i) וַיֵּצֵא לְמֶרְחָב אֹתִי (2 Sam 22:20)  
 wayyōṣē' lam-merhāb 'ōt-î  
 bring.out.WCIPFV.3MS to.the-broad.place ACC-1CS  
 "He brought me out to the broad place."

Literally, 2 Sam 22:20 reads, "And he brought out to the broad place me." Here, the underlined PP adjunct appears to have been moved leftward for contrastive Focus: before God rescued the Psalmist, he used to be in a narrow place. Thus, even (i) shows that the base position for an overt pronoun complement is adjacent to the verb. Moreover, since a null resumptive cannot carry Focus by nature of it being phonologically vacuous (Holmstedt 2016:186), the only possible position is adjacent to the verb, which is shown in (8) to block extraposition.

insufficient. The correct analysis for (3) will be produced within a complementation structure (2) in §5.3.3.

### 5.3 Split Coordination

Example (3) in the previous section of non-contiguous conjuncts may be called split coordination. Those who acknowledge the construction in BH are often content to address it simply in descriptive terms: “A chain of coordinated terms may be split by an intruding element” (JM §177t; cf. BHRG §40.23.3.1). Such a statement has some descriptive adequacy for an example like (10), because a PP, *with him*, intrudes between one NP, *his two young men*, and another NP, *Isaac his son*.

- (10) וַיִּקַּח אֶת־שְׁנֵי נְעָרָיו אִתּוֹ וְאֵת יִצְחָק בְּנֵוֹ (Gen 22:3)  
*wayyiqqah 'et šənê nā 'ārāy-w 'itt-ô wə-'et yiṣḥāq*  
 take.WCIPFV.3MS ACC two.GEN sons-3MS with-3MS and-ACC Isaac  
*bən-ô*  
 son-3MS  
 He took two of his young men with him, and Isaac his son.

Nevertheless, there is no explanation for how split coordination is generated or restrained in BH. Can any pair of conjuncts be split, and how much intervening material can there be?

Ellipsis provides explanatory adequacy for these split coordination constructions. In the following subsections, I will first explain explain how ellipsis interacts with information structure (§5.3.1). Then I will show that all purported cases of conjunct movement align cross-linguistically with gapping (§5.3.2), stripping (§5.3.3), and right node raising (§5.3.4). Within this framework of ellipsis, we can give a proper analysis of the alleged cases of conjunct drop (§5.3.5) and the so-called “comitative *waw*” (§5.3.6).

### 5.3.1 Information Structure and Ellipsis

Information structure is a broad term that was first coined by Halliday (1967) to explain how the use of intonation gives order to the information flow of a sentence. Similarly, Chafe (1976) used it to discuss the accommodation of a speaker's message to the hearer's needs. Ever since Lambrecht (1994), however, information structure has often been used more specifically to refer to the linguistic coding of Topic and Focus. Following Rizzi (1997), I assume that Topic and Focus are formal features that project the functional categories of TopP and FocP, respectively, into the complementiser phrase (CP), which comprises the Left Periphery of the clause.

(11) [ForceP [TopP [FocP [TopP [FinP [TP]]]]]] (Rizzi 1997:297)

While there are many functional categories according to Rizzi's (1997) Split-CP Hypothesis (11), only Topic and Focus are needed to account for elliptical structures in Biblical Hebrew.

Topic is often defined generally in terms of "aboutness" (Reinhart 1982). Another definition is in terms of "familiarity," that the Topic refers to an entity that is active in the mind of the addressee (Lambrecht 1994). Thus, statement (12) that John expresses to Mary is felicitous only if John rightly assumes a common ground understanding of who the Topic *Jason* refers to.

(12) "Jason is going to be late for the party tonight."

Focus, on the other hand, highlights new information that is not common ground between speaker and addressee. Rooth (1992) defines Focus as presenting a contrast within a set of alternative elements, but Kiss (1998) insists that there is a semantic and syntactic difference between plain information Focus (add information to the common ground), which occurs in every sentence, and identificational (contrastive) Focus (replace an assumption with new information), which does not occur in every sentence (cf. Biezma 2013).

Only contrastive Focus draws the constituent to the spec of FocP, which operates on either an open set of alternatives for a contrastive (13) or additive (14) interpretation, or on a closed set of alternatives for a corrective (15) interpretation (Kiss 1998, Molnár 2001, Kolokonte 2008, Rasekhi 2018).

(13) John plays the piano, but not the guitar.

(14) John plays the piano, and also the guitar.

(15) John was born in Boston, not in London.

As is broadly recognised (Krifka 1999, 2008, Hendriks 2004), there is also contrastive Topic (16), which “refers to topicalized elements that have been selected from a set of alternatives that are known to the speaker and hearer” (Rasekhi 2018:33).

(16a) Tell me about your two new students in Linguistics 101. Did they turn in their homework on time?

(16b) [Sandra]<sub>T</sub> turned in her homework, but [Peter]<sub>T</sub> didn't. (Winkler 2012: [12])

In examples (13)–(15) and (16b), it is important to note that some information has undergone ellipsis in the second conjunct.

There are three kinds of ellipsis pertinent to the Hebrew coordination data. The first kind is gapping (17), which elides the verb in the second clause and leaves behind two (or more) constituents.<sup>3</sup> The second is stripping (18), which deletes everything except for one constituent.

(17) Jones likes seafood and Smith, bread.

(18) Jones likes seafood a lot, and bread too. (Johnson 2019: [1]–[2])

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<sup>3</sup> As an implication of this definition, I do analyse cases of “backwards gapping,” where the verb occurs at the end of the second clause, as actually being produced by right node raising (RNR) (Johnson 2019). Miller specifically argues that such cases are indeed produced by gapping (2007a:168, n. 11), and that the position of the verb correlates with the direction of gapping (Miller 2000, 2003a, 2007a, 2007b). Nevertheless, Hernández (2007) makes a strong case that the position of the verb does not have any influence on the direction of gapping; instead, only languages that use the same coordinator for phrasal and clausal coordination allow for gapping. For more on RNR in Hebrew, see §5.3.4. Nevertheless, my argument for complementation is not affected by whether backwards gapping or RNR is the correct analysis for this syntactic phenomenon.

It is common now to say that information structure governs ellipsis. Specifically, this means that “only the elements that carry contrastive topic or contrastive focus features can survive ellipsis” (Rasekhi 2018:203; cf. Kolokonte 2008, Konietzko 2016, Johnson 2019).

A third type of ellipsis pertinent to Hebrew is right node raising (RNR), which leaves a gap in the first conjunct with its antecedent in the second (19) (Ha 2008:3).

(19) Mary CAN <~~swim across the river~~>, but Bill CAN’T – swim across the river.

In this thesis, I follow Ha (2008) in analysing RNR as a backwards form of ellipsis similar to verb-phrase (VP) ellipsis.<sup>4</sup> As such, it is important to note that RNR, as a form of ellipsis, is different than the ellipsis of gapping (and stripping). Unlike RNR, gapping cannot occur in an embedded clause (20), nor is backwards gapping possible (21).

(20) \*Mary said that she ate Sushi, and Bill said that he <~~ate~~> Teriyaki.

(21) \*Bill <~~bought~~> the car, but Mary bought the bike. (Ha 2008:9)

Nevertheless, RNR is similar in requiring contrastive Focus just before the deletion target (indicated in all-caps) (Ha 2008:158–160), as is evident in (19). While an RNR sentence is burdensome to process, it “is used to maximize the contrast effects in the coordinate structure ... [and] helps the discourse be more coherent” (Ha 2008:23).

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<sup>4</sup> Like Ha (2008), I retain the traditional terminology, RNR, even though I do not consider it a movement phenomenon. He gives four examples in which VP-ellipsis (the (a) examples) and RNR (the (b) examples) are similar (2008:9–11). Both can occur in an embedded clause (i); both allow for Fiengo and May’s (1994) Vehicle Change effects (ii); neither require strict morphological identity (iii); and both can produce sloppy identity (iv).

- (i) a. John thought Mary was going to donate his car to the charity, and Mary thought John was going to <~~donate his car to the charity~~>.
- b. John thought Mary was trying to SELL <~~his car to the charity~~>, and Mary thought John was trying to DONATE – his car to the charity.
- (ii) a. Sue said Bill wrote a mean joke about John<sub>i</sub> on the blackboard, and he<sub>i</sub> told us that Mary did <~~write a mean joke about him<sub>i</sub>~~>, too.
- b. He<sub>i</sub> hopes Susan WON’T <~~fire him<sub>i</sub>~~>, but the secretary knows that she WILL – fire John<sub>i</sub> at the end of this year.
- (iii) a. John **slept**, and soon Mary will <~~sleep~~>, too.
- b. John WOULDN’T <~~negotiate his salary with the company for next year~~>, but Mary HAS – **negotiated** her salary with the company for next year.
- (iv) a. John<sub>i</sub> likes his father, and Bill<sub>j</sub> does <~~like his<sub>i/j/k</sub> father~~>, too.
- b. John<sub>i</sub> LIKES, but Bill<sub>j</sub> HATES – his<sub>i/j/k</sub> father.

### 5.3.2 Gapping

Miller (2003a, 2007a, 2007b) notes three universal conditions for the verb to be deleted: (a) the clauses are coordinate; (b) the overt and elided verb are lexically identical<sup>5</sup>; and (c) there is a syntactic identity between the remnants and their counterparts in the base clause. In addition to these, the general condition for ellipsis (cf. §5.3.1) states that the remnants must carry contrastive Topic or Focus features. Example (22) demonstrates all of these conditions.

- (22) וְשָׂם הַנֶּזֶם עַל־אֶפְדָּהּ וְהִצַּמִּידִים עַל־יָדֶיהָ: (Gen 24:47)  
wā'āsīm han-nezem 'al 'app-āh wə-haṣ-ṣamîdîm 'al yādê-hā  
put.WCIPFV.1CS ART-ring on nose-3FS and-ART-bracelets on arms-3FS  
“I put the ring on her nose, and [*I put*] the bracelets on her arms.”

The coordination between the two clauses is clear. The deleted copy of the verb retains the same TAM features as the overt trivalent verb. Each clause has NP and PP complements, and the remnants are in contrastive Focus: *ring* contrasts with *bracelets*, and *nose* contrasts with *arms*. Most examples of gapping in the Pentateuch, like (22), meet all of the stated conditions for ellipsis.<sup>6</sup>

Within the canonical examples of gapping, there is some slight variation. Most examples delete the verb in only one subsequent clause (22), but some show verb deletions in two clauses (23).<sup>7</sup>

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<sup>5</sup> Specifically, the deleted verb must agree in stem and have identical TAM features, but does not need to agree in *phi*-features (Miller 2007a:170–172).

<sup>6</sup> Gen 24:47; 31:41; 43:32; 45:8; Exod 11:2; 13:22; 21:37; 22:23; 25:19; 26:9, 10, 35; 35:27–28; 36:16, 38; 38:8; Lev 9:2; 12:6, 8; 15:15, 30; 16:5; 20:25; 23:19; 26:19; Num 3:41, 45; 5:21; 6:11, 19; 8:12; 15:24; 18:8; 32:16, 24; 35:5; Deut 11:29; 28:23.

<sup>7</sup> Other examples of two verb-deletions include Gen 33:2; Lev 9:3–4; Num 6:14; there is also an example with three verb deletions (Gen 14:5–6) and with four (Exod 39:28–29).

- (23) וַיִּשְׂמוּ לוֹ לְבַדּוֹ וְלָהֶם לְבַדָּם וְלִמְצָרִים הָאֲכָלִים אֹתוֹ לְבַדָּם (Gen 43:32)  
*wayyāsîmû l-ô ləḥadd-ô wə-lā-hem ləḥadd-ām*  
 place.WCIPFV.3MP to-3MS alone-3MS and-to-3MP alone-3MP  
*wə-lam-miṣrîm hā-’ōkəlîm itt-ô ləḥadd-ām*  
 and-to.ART-Egyptians ART-eat.PTCP.MP with-3MS alone-3MP  
 They placed him by himself, and [*they placed*] them by themselves, and [*they placed*] the Egyptians who were eating with him by themselves.

Usually the remnants are repeated in the same order, but they can occur in chiasitic order (24).<sup>8</sup>

- (24) הָיִיתִי בַיּוֹם אֲכָלְנִי חֶרֶב וְקָרָח בַּלַּיְלָה (Gen 31:40)  
*hāyītî ba-yôm ’ākāl-anî ḥōreb wə-qerah bal-lāyālâ*  
 be.PFV.1CS in.ART-day eat.PFV.3MS-1CS heat and-cold in.ART-night  
 Lit.: “There I was: in the day ate me heat, and cold [*ate me*] in the night.”

Usually, there are just two remnants left behind, but once there are three remnants (25).

- (25) בָּתַת יְהוָה לָכֶם בְּעֶרֶב בֶּשֶׂר לֶאֱכֹל וְלֶחֶם בַּבֹּקֶר לְשִׂבְעַתְּ (Exod 16:8)  
*bā-tēt yhw̄h lā-kem bā-’ereḇ bāsār le-’ēkōl wə-leḥem*  
 in-give.INF YHWH to-2MP in.ART-evening meat to-eat.INF and-bread  
*bā-bōqer li-šbōa’*  
 in.ART-morning to-be.satisfied.INF  
 “When YHWH gives you in the evening meat to eat, and [*he gives you*] bread in the morning to be satisfied.”

None of these three narrative examples offers a single exception to the conditions for ellipsis, but they do show some variation within the common pattern of verb gapping.

One exception to the pattern occurs in poetry. These examples meet the three universal conditions on gapping noted above, but the remnants in (26) do not carry contrastive Focus.

- (26) כִּבֵּס בַּיַּיִן לְבִשׁוֹ וּבַדָּם-עֲנַבִּים סוּתָה: (Gen 49:11)  
*kibbēs bay-yayin ləḥūš-ô û-ḥə-dam ’ānāḥîm*  
 wash.PFV.3MS in.ART-wine cloth-3MS and-in-blood.GEN grapes  
*sūt-ô*  
 garment-3MS  
 “He washed his clothing in wine, and [*he washed*] his garment in the blood of grapes.”

Instead of contrast, the remnants are co-referential with the corresponding constituents in the base clause: *garment* is a synonym of *clothing*, and *blood of grapes* is a synonym of *wine*.

<sup>8</sup> This is the only example in narrative where the remnants are repeated in chiasitic order. It is more common in poetry (Gen 4:24; 49:11[x2]; Deut 33:26).

Poetry uniquely allows for non-contrastive, coreferential constituents, which Miller notes “directly result(s) from the most prominent feature of poetry, parallelism” (2007a:177).<sup>9</sup> In fact, coreferential remnants are the norm within poetry with contrastive Focus as a rarity.<sup>10</sup>

The gapping data also reveal two coordination asymmetries that Hebraists rarely recognise. First, example (27) shows that the remnants are not always syntactically identical to their corresponding constituents in the base clause.<sup>11</sup>

- (27) וַיִּתֵּן תֶּבֶן וּמִסְפּוֹא לַגַּמְלִים וּמַיִם לְרַחֵץ רַגְלָיו (Gen 24:32)  
*wayyittēn teben û-mispô' lag-gəmallîm û-mayim li-rḥōš*  
 give.WCIPFV.3MS straw and-fodder to.ART-camels and-water to-wash.INF  
*raġlāy-w*  
 feet-3MS  
 He gave straw and fodder to the camels, and [*he gave*] water to wash his feet.

The TP (headed by an infinitive) *to wash his feet* in the ellipsis clause corresponds to the PP *to the camels* in the base clause. While they differ in syntax, they show resemblance in semantic type by indicating a beneficiary.<sup>12</sup>

The second type of asymmetry in gapping is that at least one of the corresponding constituents in the base clause may be null. Example (28) displays a null complement, indicated by empty square brackets.

<sup>9</sup> Even if one follows Holmstedt (2019b) in analysing Hebrew poetry through the lens of apposition and not parallelism, the exception for ellipsis still makes sense. According to Holmstedt, the restriction of line length, rather than the presence of a couplet, is the definitive feature of poetry. With the syntactic line as the basis, the poet proceeds by relating a second line to the first in one of two ways: apposition (refining or reformulating the first line) or non-apposition (adding new features to the first line or transitioning to a subsequent image). Leaving aside discussion of the structure of apposition until §6.4, it suffices here to note that coreferential ellipsis remnants are naturally produced in poetry if relating poetic lines is a binary choice of apposition : non-apposition.

<sup>10</sup> In my corpus of poetry examples, the remnants are always co-referential with their corresponding constituents in the base clause: Gen 4:23, 24; 49:7, 10, 11[x2], 13, 15, 17; Num 21:29; Deut 32:13, 25; 33:10[x2], 26.

<sup>11</sup> Other examples include Exod 37:29; Num 14:14; 21:29; Deut 33:18. Miller notes some conflicting evidence for whether the constituents must have syntactic or semantic identity (2007a:172–175). This is consistent with cross-linguistic findings. Rasekhi (2018:21) stipulates, “The identity relation is sensitive to both semantic and syntactic forms.”

<sup>12</sup> Thus, (27) is consistent with Zhang’s (2010) RPR that was advanced in §3.3.1. Some BH examples of asymmetric coordination were given in §4.3.3.1, and additional ones will be addressed in §6.2.1.

- (28) וַיִּשְׁלַח יִשְׂרָאֵל אֶת־יָמִינוֹ וַיָּשֶׁת עַל־רֶאֶשׁ אֶפְרַיִם וְהוּא הִצָּבִיר וְאֶת־שְׂמָאלוֹ  
עַל־רֶאֶשׁ מְנַשֶּׁה (Gen 48:14)  
wayyišlah yisrā'el 'et yāmīn-ô wayyāšet 'al rō's  
send.WCIPFV.3MS Israel ACC right-3MS set.WCIPFV.3MS on head.GEN  
'eprayim wə-hû' haš-šā'ir wə-'et šāmō'l-ô 'al rō's mənāššē  
Ephraim and-he.NOM ART-young and-ACC left-3MS on head.GEN Manasseh  
Israel reached out his right hand, and he placed [ ] on Ephraim's head (and he  
was the younger), and [*he placed*] his left hand on Manasseh's head.

The null object has been related to the more extensive phenomenon of subject *pro*-drop (Holmstedt 2013b), but it has at least two divergent difficulties of its own:

- (1) the object is not obligatorily indexed on the finite verb as is the subject; and (2) in order to know whether the object is obligatory with a particular lexical verb, one must solve the thorny problem of valency and transitivity in Biblical Hebrew (Miller-Naudé and Naudé 2019b:17).

Two analyses claim to account for object drop, and the gapping example of (28) can help decide between them.

One analysis proposes that missing objects are examples of Topic-drop. A dropped object is unpronounced in the phonological component, because it merges in syntax as an unvalued bundle of person/number/gender ( $\varphi$ ) features, and its content is retrieved from the available Topic in the context (Erteschik-shir et al. 2013). Once the  $\varphi$ -features are supplied, the dropped object is equivalent to a pronoun, but (28) poses an issue for this understanding. The remnant *his left hand* needs to correspond to *his right hand* in the base clause, but this is where the object has been dropped. Landau's critique of the Topic-drop theory applies at this point: "It is, in fact, not clear how valuation of mere  $\varphi$ -features can recover *lexical content*" (2018:6). The correspondence between the remnant and the base-clause constituent occurs at the lexical level.

The other analysis is that missing objects are examples of argument ellipsis, which is "committed to lexical-syntactic parallelism and not to topic continuity" (Landau 2018:6). As the residue of ellipsis, the object gap in (28) is able to license the remnant constituent *his right*

*hand* in the gapped clause. This datum will inform the future study that Holmstedt (2019a) says is necessary to determine whether the BH data support the Topic-drop or argument ellipsis analysis.

### 5.3.3 Stripping

It is easy to see that the gapping data are not produced by conjunct movement. The two remnants by themselves are a fragment. Stripping, on the other hand, appears to be conjunct movement, because the ellipsis process leaves behind just one constituent (noted in brackets).

- (29) [וְאֶת־בְּנֵימִן] וּמִשְׁנֵה־כֶּסֶף לָקְחוּ בְיָדָם (Gen 43:15)  
*û-mišnê kesep lāqəḥû bə-yād-ām wə-’et binyāmin*  
 and-double.GEN silver take.PFV.3CP in-hand-3MP and-ACC Benjamin  
 Double the money they took in their hand, [and Benjamin; ~~they took \_\_\_\_~~; ~~in their hand~~].
- (30) [וְגַם אֶת־לֹוֹט וְרֵכְשׁוֹ הָשִׁיב] וְגַם אֶת־הַנְּשִׁים וְאֶת־הָעָם (Gen 14:16)  
*wə-ḡam ’et lôṭ ’āḥî-w û-rəḳūš-ô hēšîḇ*  
 and-also ACC Lot brother-3MS and-possession-3MS return.PFV.3MS  
*wə-ḡam ’et han-nāšîm wə-’et hā-’ām*  
 and-also ACC ART-women and-ACC ART-people  
 Both Lot his brother and his possessions he returned, [and also the women and the people; ~~he returned \_\_\_\_~~].

These examples show that the remaining constituent can be a simplex (29) or a coordinate complex (30). The stripping process can elide one constituent (30),<sup>13</sup> two constituents (29),<sup>14</sup> or more than two constituents.<sup>15</sup> Also evident in these examples is that the remnant is in contrastive Focus with an additive interpretation. Joseph’s brothers did not take just the

<sup>13</sup> Specifically, the elided constituent is the verb. Other examples with one elided constituent include: Gen 1:16; 2:9; 7:21; 24:25; 28:13; 31:16; 34:29; Exod 11:5; 27:3; 37:19; Lev 25:45; Num 11:5; 13:18; 18:11; Deut 14:29; 31:9; 32:32, 33; 33:19.

<sup>14</sup> Specifically, the elided constituents are the verb and an adjunct PP. Other examples with two elided constituents include: Gen 12:17; 13:15; 17:7; 21:14; 24:38; 27:12, 39; 28:14; 43:18; 44:2; 47:23; Exod 8:17; 12:29, 38; 18:2–3; 18:6; 34:22, 27; Lev 9:13; 14:12; Num 12:8; 13:26; 14:30; 16:27; 18:9; 20:15; 23:19; 28:15, 24; Deut 1:36; 2:35; 26:11; 28:13, 46.

<sup>15</sup> Some examples seem to include three elided constituents (Gen 26:26; 46:15; Exod 3:19; 4:28; Num 13:23; 28:31; Deut 9:5). Miller (2005) and Miller-Naudé and Naudé (2017) discuss a number of other stripping examples outside the Pentateuch.

money to purchase new grain; they also brought along Rachel’s remaining son (29). Abraham did not redeem his kinsman only; he also returned the captured people of Sodom and Gomorrah (30).

One other factor is evident from the above examples. Stripping may include (30), but does not require (29), the presence of  $\text{D}\text{̣}$ .<sup>16</sup> This is contrary to a recent proposal by Konietzko (2016), who argues that stripping requires either a Focus-sensitive particle or a negation word. In this way, he distinguishes between split conjunction (31) and stripping (32).<sup>17</sup>

(31a) John bought a book yesterday, and a magazine.

(31b) ??John bought a book yesterday, and Mary.

(32a) John bought a book yesterday, and a magazine too.

(32b) ?John bought a book yesterday, and Mary too.

Based on the distinction in structure, he maintains that the particle *too* in (32b) saves the structure from the ungrammaticality of (31b). Nevertheless, I believe he has misinterpreted the English data. The more clear contrast is that there is an object bias in English, whether within so-called “split conjunction” (31a) or within stripping (32a). It is important to note that this object bias for ellipsis remnants does not exist in *pro*-drop languages like Spanish (Biezma 2013). Nevertheless, even the degraded subject remnants in (31b) and (32b) are improved if there is a clear intonation break between the first and second conjunct, something Konietzko himself admits (2016:18, n. 2). There is, therefore, no different structure for split conjunction. Rather, there is one structure, stripping, which requires either an intonation break or a Focus particle equivalent to *too* (Johnson 2019).

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<sup>16</sup> In fact, only two other stripping examples in my corpus use the Focus particle (Gen 24:25; Exod 8:17).

<sup>17</sup> These examples, including the grammatical judgments, are adapted from Konietzko (2016:18–19). It should also be noted that Konietzko consciously follows Munn’s (1993) adjunction model for the split coordination examples, something I am directly arguing against in this section.

Since BH is a *pro*-drop language (Holmstedt 2013b), there should be stripping examples that leave a subject remnant. This is, in fact, what we find in (33), even without the use of ׀.<sup>18</sup>

- (33) [וְאַחֲזֵת מְרֵעָהּ וּפִיכֹל שָׂר־צָבָאוּ:] (Gen 26:26)  
*wa-’ābīmelek hālak ’el-āyw mig-gārār wa-’āhuzzat*  
 and-Abimelech walk.PFV.3MS to-3MS from-Gerar and-Ahuzzath  
*mērē ’ē-hû û-pīkōl śar śəbā’-ō*  
 companion-3MS and-Phicol commander.GEN army-3MS  
 Abimelech went to him from Gerar, [and Ahuzzath his companion and Phicol  
 the commander of his army ~~went to him from Gerar~~].

Like the other examples of stripping in (29)–(30), the coordinate complex remnant in (33) is in contrastive Focus with an additive interpretation. Not only has Abimelech come to Jacob, but his companion and the commander of his army have come as well. Abimelech had earlier told Isaac to leave them (26:16; cf. v. 6). Isaac is twice forced to leave the wells he has dug (vv. 21–22). God tells Isaac not to fear (v. 24), and verse 26, which puts the army commander in contrastive Focus, gives the reason why Isaac might fear. It appears that Abimelech has come in hostility.

When the verb is elided, all of its arguments are elided too. By default, an adjunct should also be understood to be elided, but in (34) this is probably not the case.<sup>19</sup> The Israelites marveled at the cluster of grapes that that was so large it required two people and a pole to carry, so they named the place “Cluster” (Num 13:24). Pomegranates, on the other hand, do not grow in clusters, so the men would not have carried them with a pole, but probably in a basket. One could maintain that the adjunct is elided by assuming that the basket of pomegranates could have been hung from the pole.

<sup>18</sup> There are in fact quite a few stripping examples that leave behind a subject remnant, even without use of the Focus particle: Gen 2:9; 7:21; Exod 11:5; 12:38; 18:6; 37:19; Num 14:30; 16:18, 27; 28:15, 24, 31; Deut 14:29.

<sup>19</sup> Miller (2008:106) says, “When the prepositional phrase is not obligatory to the clause, it is impossible to know whether ellipsis has occurred.”

- (34) וַיִּשְׂאוּהוּ בַמֹּט בְּשְׁנַיִם [וּמִן־הָרְמֹנִים וּמִן־הַתְּאֵנִים:] (Num 13:23)  
 wayyisšā' ū-hû ḥam-môṭ bi-šnāyim ū-min hā-rimmōnîm  
 carry.WCIPFV.3MP-3MS in.ART-pole in-two and-from ART-pomegranates  
 ū-min hat-tə'ēnîm  
 and-from ART-figs  
 They carried it on a pole with two people, [and some of (lit. from) the  
pomegranates and some of (lit. from) the figs; they carried \_\_\_\_i].

Regarding (34), it is also crucial to note that the remnant and its corresponding constituent in the base clause do not share the same syntactic category.<sup>20</sup> Moreover, they do not even meet the resemblance requirement, since the PP is a partitive construction but the NP is not; nevertheless, they do fulfill the relatedness requirement, sharing the semantic role of Theme, describing what was carried.

Most stripping examples show that the remnant is in contrastive Focus with an additive interpretation, but this is not always the case. The following examples show that the remnant can have a contrastive (35)<sup>21</sup> or corrective (36)<sup>22</sup> interpretation.

- (35) וְהִבֵּאתִי עָלַי קִלְלָה [וְלֹא בְרָכָה:] (Gen 27:12)  
 wəhēbē' ū' 'āl-ay qəlālā wə-lō' ḥərākā  
 bring.WCIPFV.1CS on-1CS curse and-NEG blessing  
 “I will bring on me a curse, [and not a blessing; I will bring on me \_\_\_\_i].
- (36) אִם־אַתֶּם תָּבֹאוּ אֶל־הָאָרֶץ אֲשֶׁר נִשְׁאַתִּי אֶת־יָדִי לְשֹׂן אֶתְכֶם בָּהּ [כִּי אִם־כָּלֵב  
 בֶּן־יִפְנֶה וַיְהוֹשֻׁעַ בֶּן־נֹון:] (Num 14:30)  
 'im 'attem tābō' ū' 'el hā-'āreš 'āšer nāsā' ū' 'et  
 if you.MP.NOM come.IPFV.2MS to ART-land that lift.PFV.1CS ACC  
 yād-î lə-šakkēn 'et-kem b-āh kī 'im kālēb ben yaḥpunnē  
 hand-1CS to-dwell.INF ACC-2MP in-3FS but if Caleb son.GEN Jephunneh  
 w-ihōšūa' bin nūn  
 and-Joshua son.GEN Nun  
 “You shall not enter the land that I lifted my hand to make you dwell, [except  
 Caleb the son of Jephunneh and Joshua the son of Nun ~~shall enter the land.~~”]

<sup>20</sup> Other stripping examples with different syntax include Num 12:8; Deut 9:5. Once again, these data are consistent with Zhang's (2010) RPR that was advanced in §3.3.1. Miller-Naudé and Naudé (2017:306–307) list the following stripping examples with different syntax: Isa 48:7; Jer 23:16; Ezek 20:44; 1 Chron 21:17. More BH examples of asymmetric coordination will be addressed in §6.2.1.

<sup>21</sup> Other examples of a stripping remnant with contrastive interpretation include Num 12:8; Deut 28:13.

<sup>22</sup> Other אִם כִּי stripping examples with a corrective interpretation include Gen 39:9; 42:15; Num 26:33, 65; 35:33.

In (35), Jacob fears that his deceptive act will bring a negative result (curse) that contrasts sharply with what his mother promised (blessing). In (36), God initially declares that none shall enter the land before he corrects it by saying that only Caleb and Joshua may enter.

In §5.2, I began with example (3) to show that it could not be produced via movement.

I repeat it below as (37). Now we can see that it is an example of stripping.

- (37) אֵלֶּה | בְּנֵי לֵאָה אֲשֶׁר יָלְדָה לְיַעֲקֹב בְּפָדֵן אָרָם וְאֵת דִּינָה בְּתוֹ (Gen 46:15)  
 'ēllē bānē lē'ā 'āšer yālādā lə-ya'āqōb bə-pāddan 'ārām  
 these sons.GEN Leah which bear.PFV.3FS to-Jacob in-Paddan Aram  
 wə-'ēl dīnā bitt-ō  
 and-ACC Dinah daughter-3MS  
 These are the sons<sub>i</sub> of Leah, wh<sub>i</sub> that (she) bore \_\_\_<sub>i</sub> to Jacob in Paddan-Aram,  
 [and Dinah<sub>j</sub> his daughter she bore \_\_\_<sub>j</sub> to him in Paddan-Aram].

My analysis of (37) assumes that it includes two stacked relative clauses,<sup>23</sup> the second headed by a zero-relative. Both RCs modify the same initial head, *sons*. While it may seem strange to have *daughter* modify *sons*, בְּנֵים can have the general sense of *children*, as in (38).<sup>24</sup>

- (38) וְאֵלֶּה בְּנֵי-עֲנָה דִשׁוֹן וְאֹהֶלִיבָמָה בִּתְ-עֲנָה: (Gen 36:25)  
 wə-'ēllē bānē 'ānā dīšōn wə-'āhōlibāmā bat 'ānā  
 and-these sons.GEN Anah Dishon and-Oholibamah daughter.GEN Anah  
 These are the sons of Anah: Dishon and Oholibamah the daughter of Anah.

Thus, (37) is an example of stripping in the coordinated embedded clause that places Jacob's daughter as a contrastive Topic with his sons.<sup>25</sup> The previous instance in which these constituents are included in the same verse is when Jacob's sons hear that Dinah his daughter was defiled (Gen 34:5). Thus, even though Dinah was likely unable to marry and have

<sup>23</sup> See Holmstedt (2016:156–158) for more on the phenomenon of stacking relatives in BH.

<sup>24</sup> It is interesting to note that the Masoretes placed the major disjunctive *etnahta* under the son Dishon. This is odd, because elsewhere in the chapter the disjunctive mark is usually placed at the end of the phrase, “These are the sons of \_\_\_\_\_” (Gen 36:13, 17, 18, 23, 26, 27), and it is never used to split up a list of two or three children. It may be the case that there is a later bias against placing a daughter on the same level as a son within a genealogy. In fact, the Chronicles parallel verse (1 Chron 1:41) simply says דִּישׁוֹן בְּנֵי עֲנָה “The sons of Anah are Dishon,” without mentioning Oholibamah at all. This actually makes it all the more striking that Oholibamah is included in her father's lineage (Gen 36:25), as well as Dinah within her father's lineage (Gen 46:15).

<sup>25</sup> Interestingly *sons* is an elided object in the first relative clause. Two other cases of object drop in ellipsis include Gen 21:14; 34:29.

children of her own, she is highlighted in the genealogy and memorialised as one of Jacob’s offspring that travel to Egypt.

There are a couple of questions concerning ellipsis that are inconsequential to my contention that coordination as a complementation structure blocks conjunct movement. And because a comprehensive analysis of stripping lies outside the purview of this thesis, I allow for these questions to remain unanswered. First, it is disputed whether ellipsis should be addressed with a small conjunct ( $\nu$ P) account (Johnson 2019), with a large conjunct (CP) account (Rasekhi 2018), or with a combination of the two (Konietzko 2016). I also leave open whether the deletion happens in the syntactic (Konietzko 2016) or phonological component (Kolokonte 2008, Rasekhi 2018).

#### 5.3.4 Right Node Raising

According to Ha (2008:22), “RNR is a relatively rare construction in language.” Nevertheless, it may be more common than often thought, especially within a numeral complex. A curious feature of BH is that the same noun, *year*, can occur as a numeral complement up to three times within a coordinate additive complex (39).

- (39) וַיְהִי חַיֵּי שָׂרָה מֵאָה שָׁנָה וְעֶשְׂרִים שָׁנָה וְשִׁבְעַת שָׁנִים (Gen 23:1)  
*wayyihyû hayyé šārâ mē’â šānâ wə-‘eśrîm šānâ wə-šeba’*  
 be.WCIPFV.3MP life.GEN Sarah hundred year and-twenty year and-seven  
*šānîm*  
 years  
 Lit.: The life of Sarah was 100 year and 20 year and 7 years (i.e. 127 years).

Ionin and Matushansky (2004) and Zweig (2005) give a cross-linguistic analysis of additive numeral complexes as often involving RNR. Their main piece of evidence comes from BH where RNR ellipsis is optional, as the minimal pair in (40) shows.

(40a) וַיְחִי מֵהַלְלָאֵל חַמֵּשׁ שָׁנִים וְשִׁשִּׁים שָׁנָה (Gen 5:15)  
*wayəḥî mahălal'el ḥāmēš šānîm wə-šiššîm šānâ*  
 live.WCIPFV.3MS Mahalalel five years and-sixty year  
 Lit.: Mehalalel lived 5 years and 60 year (i.e. 65 years).

(40b) וַיְחִי חֲנוֹךְ חַמֵּשׁ וְשִׁשִּׁים שָׁנָה (Gen 5:21)  
*wayəḥî ḥănôk ḥāmēš wə-šiššîm šānâ*  
 live.WCIPFV.3MS Enoch five and-sixty year  
 Lit.: Enoch lived 5 \_\_\_\_ and 60 year (i.e. 65 years).

While there is no ellipsis when two numerals are added together in (40a),<sup>26</sup> there is ellipsis in (40b) for the exact same constituents.<sup>27</sup>

There is another piece of evidence for RNR in BH additive numerals. There are two morphophonetic changes that may occur to the numeral complex alongside RNR. In the following minimal pair, example (41a) is the default construction and (41b) displays RNR.

(41a) וַיְהִי אַבְרָם בֶּן־תְּשַׁעִים שָׁנָה וְתִשְׁעַתְּשָׁנִים (Gen 17:1)  
*wayəḥî 'abrām ben tiš'im šānâ wə-tēša' šānîm*  
 be.WCIPFV.3MS Abram son-GEN ninety year and-nine years  
 Lit.: Abram was a son of 90 year and 9 years (i.e. 99 years old).

(41b) וַאֲבִרְהָם בֶּן־תְּשַׁעִים וְתִשְׁעַתְּשָׁנִים שָׁנָה (Gen 17:24)  
*wə-'abrāhām ben tiš'im wā-tēša' šānâ*  
 and-Abraham son-GEN ninety and-nine year  
 Lit.: Abraham (was) a son of 90 \_\_\_\_ and 9 year (i.e. 99 years old).

As noted in §4.3.3.2, pretonic *waw* takes a *qamets* at a prosodic break as a reflex of end-weight. RNR creates a prosodic break after the second conjunct to signal that the complement

<sup>26</sup> Other instances include the repeated numeral complement *year* (Gen 5:5, 6, 7, 8, 10, 11, 13, 14, 16; 9:28, 29; 11:13, 15, 17, 19, 21, 25, 32; 12:4; 16:16; 17:1; 35:28; Exod 12:40, 41). There are a few instances with *thousand* (Num 1:46; 2:24, 32) and a couple with *day* (Lev 12:4, 5).

<sup>27</sup> Other RNR instances include the use of the complement *year* (Gen 5:3, 21; 6:3; 8:13; 11:12, 16, 20, 24; 17:24; 47:9; 50:22, 26; Exod 7:7; Lev 25:8; Num 8:24; Deut 2:14; 31:2; 34:7) or *thousand* (Num 3:39; 26:62; 31:33, 34, 35, 38, 44). There are a few instances with *day* (Gen 7:24; 8:3, 14). There is an interesting pattern when a coordinate additive complex of three or more numerals takes one of these complements. If the conjuncts are listed greatest-to-least, the complement is repeated after each numeral (Gen 23:1; 25:7, 17; Num 2:9; 31:32, 36). If the conjuncts, are listed least-to-greatest, however, there is either full (Exod 6:16, 18, 20; Num 33:39) or partial (Gen 5:17, 18, 20, 23, 25, 26, 27, 28, 30, 31; 47:28) RNR ellipsis.

*year* modifies both numerals (41b).<sup>28</sup> In fact, the other morphological change confirms this analysis. The singular form שָׁנָה occurs after the units digit, indicating agreement, not with the simplex numeral תִּשְׁעַ but with the complex numeral תִּשְׁעִים וְתִשְׁעַ (41b).<sup>29</sup>

Outside of the complex additive numerals, there are not many examples of RNR in the Pentateuch. Example (42) is one instance of RNR with no other ellipsis phenomena.<sup>30</sup>

- (42) שְׁלֹשָׁה עֶשְׂרֵינִים לְפָר וּשְׁנַיִם עֶשְׂרֵינִים לְאֵיִל תַּעֲשׂוּ: (Num 28:20)  
 šəlōšā ‘esrōnîm lap-pār û-šəné ‘esrōnîm lā-’ayil ta’āsû  
 three tenths to.ART-bull and-two.GEN tenths to.ART-ram do.IPFV.2MP  
 “THREE tenths for the BULL <you shall offer>, and TWO tenths for the RAM  
 – you shall offer.”

In (42), there are separate instructions for the the bull and the ram of the burnt offering, which are set apart in contrastive Focus. As explained in §5.3.1, RNR requires Focus just before the deletion target (indicated with all-caps). Moreover, this Focus must have a *contrastive* interpretation (43a) rather than an *additive* interpretation (43b).

- (43a) JOHN LOVED, but BILL HATED – going fishing.

- (43b) ?\*JOHN loved, and BILL loved – going fishing. (Ha 2008:6)

The Hebrew example (42) seems to parallel the English example (43a) of RNR perfectly. The bull requires three portions of fine flour, while the ram requires just two portions.

<sup>28</sup> Within coordinate additive numerals, pretonic *waw* always takes a *gamets* when there is RNR ellipsis (Gen 17:24; 50:22, 26), and it always takes a schwa when the noun complement שָׁנָה is repeated (Gen 16:16; 17:1; 23:1).

<sup>29</sup> Example (41b) is the one time in Genesis that the singular form שָׁנָה occurs after a units digit. Every other time, a units digit is followed by the plural form עֶשְׂרִים (Gen 5:6, 7, 11, 15; 11:13, 15, 19, 21, 32; 12:4; 16:16; 17:1; 23:1; 25:7, 17; 29:18, 20, 27, 30; 31:41; 41:26, 27, 29, 30, 34, 36, 47, 48, 53, 54; 45:6, 11; 47:28). Instead, the singular form שָׁנָה occurs after a tens digit with RNR (Gen 5:17, 18, 20, 21, 23, 25, 26, 27, 28, 30, 31; 11:12, 16, 20, 24) or without RNR (Gen 5:5, 9, 12, 13, 15, 16; 9:28, 29; 11:14, 17, 18, 22, 26; 12:4; 16:16; 17:1, 17; 23:1; 25:7, 17, 20, 26; 26:34; 31:38, 41; 35:28; 41:46).

<sup>30</sup> The other instances are Exod 12:16; Num 28:14; 34:14; Deut 12:26.

There are other examples of RNR that have focused elements, but without a contrastive interpretation. Crucially, however, these examples also manifest stripping, which keeps the derivation from crashing.<sup>31</sup>

- (44) וְהִנֵּה עֵינֵיכֶם רְאוּת [וְעֵינַי אָחִי בְנִימִין] כִּי־פִי הַמְדַבֵּר אֵלֵיכֶם: (Gen 45:12)  
*wə-hinnê 'ênê-kem rō'ôt wə-'ênê 'āh-î binyāmîn*  
 and-behold eyes-2MP see.PTCP.FP and-eyes.GEN brother-1CS Benjamin  
*kī p̄-î ha-məḏabbēr 'ālê-kem*  
 that mouth-1CS ART-speak.PTCP.MS to-2MP  
 “Behold, YOUR eyes see <that it is my mouth that is speaking to you>, [and the eyes of my brother BENJAMIN see] – that it is my mouth that is speaking to you.”
- (45) וַיִּנְגַע יְהוָה | אֶת־פְּרֻעָה נְגַעִים גְּדֹלִים [וְאֶת־בֵּיתוֹ] עַל־דַּבַּר שָׂרַי אִשְׁתׁ אַבְרָם: (Gen 12:17)  
*wayənanagga' yhw̄h 'et̄ par'ô nəḡā'im gəḏōlīm wə-'et̄*  
 strike.WCIPFV.3MS YHWH ACC Pharaoh plagues great and-ACC  
*bēt-ô 'al dāḅar sārāy 'ēšet̄ 'abrām*  
 house-3MS on matter.GEN Sarai wife.GEN Abram  
 YHWH struck PHARAOH with great plagues <because of Sarai, Abram’s wife>, [and HIS HOUSE<sub>i</sub> he struck \_\_\_<sub>i</sub> with great plagues] – because of Sarai, Abram’s wife.

As was the case in the last section, stripping can elide one argument (44) or two (45), as shown in square brackets. Also, in these examples, the remnant is in contrastive Focus with an additive interpretation. In revealing himself to his brothers, Joseph singles out Benjamin, whom he also calls “my brother” (44). And even though it was Pharaoh who took Sarai, God also strikes his house with plagues (45). Stripping the identical constituent(s) in (44)–(45) heightens the contrast between the remnant and its corresponding constituent; this, in turn, licenses RNR ellipsis.

### 5.3.5 Analysis of Conjunct Drop

So far, we have seen that all examples of “split coordination” are not the result of conjunct movement but ellipsis. Within this framework of ellipsis, we can address related issues such

<sup>31</sup> Two other examples of stripping and RNR in the Pentateuch include Gen 47:23; Num 18:11.

as conjunct drop and the so-called “comitative *waw*.” Conjunct drop refers to cases when the external conjunct is null-expressed. While such cases are attested cross-linguistically and are consistent with complementation (Zhang 2009a:200–204), there may not actually be any instances of conjunct drop in the Pentateuch.

The conjunct drop analysis is suggested in passing by Naudé (1999). His main contention is that any post-verbal coordinate structure headed by a subject pronoun is an adjunct quantification phrase (QP).

- (46) וַיֵּשֶׁב יוֹסֵף בְּמִצְרַיִם הוּא וּבֵית אָבִיו (Gen 50:22)  
*wayyēšēb yôsēp̄ bə-miṣrayim hū' û-bêt 'ābî-w*  
 dwell.WCIPFV.3MS Joseph in-Egypt he.NOM and-house.GEN father-3MS  
 And Joseph dwelt in Egypt, he and his father’s house.

In (46), *Joseph* is the overt subject, which is quantified by the coordinate structure *he and his father’s house*. The structure of (47) is identical, except the syntactic subject is *pro*.

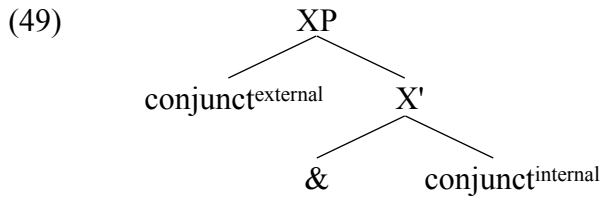
- (47) וַיֵּשֶׁב בְּמַעְרָה הוּא וּשְׁתֵּי בָנָתָיו: (Gen 19:30b)  
*wayyēšēb bam-mə'ārâ hū' û-šattē bənōtāy-w*  
 dwell.WCIPFV.3MS in.ART-cave he.NOM and-two.GEN daughters-3MS  
 And (he) dwelt in the cave, he and his two daughters.

There is a minimal-pair example (48) that occurs earlier in the same verse. It is identical to (47), except it appears that the subject pronoun in the QP is null, an example of conjunct drop.

- (48) וַיֵּשֶׁב בְּהָר וּשְׁתֵּי בָנָתָיו עִמּוֹ (Gen 19:30a)  
*wayyēšēb bā-hār û-šattē bənōtāy-w 'imm-ô*  
 dwell.WCIPFV.3MS in.ART-mountain and-two.GEN daughters-3MS with-3MS  
 And (he) dwelt in the mountain, [he] and his two daughters with him.

While Naudé (1999) does not argue the point in detail, he suggests that the syntactic structure of (47) and (48) are identical, but overt resumption of the subject is lacking in (48).

Conjunct drop is not a theoretical concern for a complementation structure. We have already seen above how complementation blocks conjunct movement, since only a maximal projection may move.



While neither conjunct may move, there is an asymmetry in that only the external conjunct can be null. Zhang (2009a) argues that the coordinator is a syntactic head that requires an overt complement (the internal conjunct); moreover, while the external conjunct may not move, because its categorial features have been transferred to the coordinator head, it need not be overt in some cases. Notice the asymmetry between leaving the external conjunct null in (50a) versus the internal conjunct in (50b).

(50a) Can linguists study negation? Not [~~study negation~~] and stay sane they can't.

(50b) \*Can linguists stay sane? Not study negation and [~~stay sane~~] they can't.  
(Zhang 2009a:202)

Moreover, Zhang (2009a:206–230) goes to great lengths to show that the Mandarin Chinese enclitic *de* is a similar kind of head element that receives its category feature from another element, which in turn may not move but may be null-expressed.

Palancar (2012) produces a typology of split conjunction, by which he means that the subject conjuncts are discontinuous and the predicate is plural. He says that the most relevant disguise for split conjunction is elision, wherein the first conjunct is elided so that only the second remains. One such example comes from Chilean Spanish.

(51) *fu-imos a-l cine [con mi madre]*  
 went-1PL to-the cinema and/with my mother  
 “My mother and I went to the cinema.” (Palancar 2012:281)

Palancar notes that a language must exhibit *pro*-drop to have this construction, and that eliding the primary conjunct “increase[s] the narrative salience of the secondary conjunct” (2012:283). BH is a *pro*-drop language, so it would be natural to find instances of

conjunct drop in the Pentateuch; however, I believe the examples listed by Naudé (1999) are better analysed as verbless clauses or stripping.

Example (48) should be interpreted as a verbless clause. It (repeated below as [52a]) has a PP *with him* that can be taken as a predicate, while the clear case of an adjunct QP (repeated as [52b]) lacks the PP constituent.

(52a) וַיֵּשֶׁב בְּהָר וּשְׁתֵּי בָנָיו עִמּוֹ (Gen 19:30a)  
*wayyēšeb bā-hār û-šattē ḥanōtāy-w imm-ô*  
 dwell.WCIPFV.3MS in.ART-mountain and-two.GEN daughters-3MS with-3MS  
 And he dwelt in the mountain, and his two daughters were with him.

(52b) וַיֵּשֶׁב בְּמַעְרָה הוּא וּשְׁתֵּי בָנָיו: (Gen 19:30b)  
*wayyēšeb bam-mə'ārā hū' û-šattē ḥanōtāy-w*  
 dwell.WCIPFV.3MS in.ART-cave he.NOM and-two.GEN daughters-3MS  
 And he dwelt in the cave, he and his two daughters.

This is a significant difference that reflects a broader pattern. Almost all examples like (52a) of what could be taken as conjunct drop have a clause-final PP with a pronoun complement (Gen 19:30; 24:10; 32:7; Num 22:22; Ruth 1:7).<sup>32</sup> Conversely, clear examples of an adjunct quantification phrase like (52b) may also have a PP with a pronoun complement, but in these cases such a constituent is not clause-final (Gen 13:1; 17:9; 50:14), occurs within a relative clause (Gen 13:1; 20:7; 31:21; 35:6; 45:10, 11; Exod 18:18; Num 16:33), occurs in a clause-final position in a volitive construction (Exod 19:24; Lev 10:9; 25:41, 54), or it occurs only after multiple conjuncts (Gen 6:18; 8:16; Exod 29:21). Thus, what definitely is a coordination phrase headed by a subject pronoun can never be mistaken for a verbless clause.

If (52a) is indeed a verbless clause, it would have to be understood as a parenthetical statement. Holmstedt (2020) identifies parenthesis as a conventional implicature that presents

<sup>32</sup> The only exception to this pattern is Judg 18:17, which will be addressed at the end of this section. Of the examples cited here, Gen 24:10 is probably the least likely to be conjunct drop, because “all the goodness of his master” is probably inanimate, which means that it would lack agency and, thus, the ability to “walk/go.”

a not-at-issue entailment. Moreover, it is linearly integrated into the sentence, but it is syntactically invisible. This is seen in (53), which includes the broader context of (52).

- (53) וַיַּעַל לוֹט מִצְוֵעַר וַיֵּשֶׁב בְּהָר וַיִּשְׁתֵּי בְנֹתָיו עִמּוֹ כִּי יָרָא לְשֵׁבֶת בְּצוֹעַר וַיֵּשֶׁב  
 בְּמַעְרָה הוּא וַיִּשְׁתֵּי בְנֹתָיו: (Gen 19:30)  
 wayya ‘al lōt miš-šō‘ar wayyēšēḅ bā-hār  
 ascend.WCIPFV.3MS Lot from-Zoar dwell.WCIPFV.3MS in.ART-mountain  
 û-šattē ḅanōtāy-w ‘imm-ō kī yārē’ lā-šeḅet  
 and-two.GEN daughters-3MS with-3MS because fear.PFV.3MS to-dwell.INF  
 bə-šō‘ar wayyēšēḅ bam-mə‘ārā hū’ û-šattē  
 in-Zoar dwell.WCIPFV.3MS in.ART-cave he.NOM and-two.GEN  
 ḅanōtāy-w  
 daughters-3MS  
 Lot went up from Zoar and dwelt in the mountain (and his two daughters were  
 with him), because he feared dwelling in Zoar. He dwelt in the cave, he and his  
 two daughters.

The parenthetical statement is linearly integrated into its sentence; moreover, it presents a not-at-issue entailment. Lot’s two daughters were with him, not “because he feared dwelling in Zoar.” Rather, he went up to dwell in a mountain cave, because he feared dwelling in Zoar. By taking *and his two daughters with him* to be a parenthetical verbless clause, it is not redundant to use the adjunct QP *he and his two daughters* in the next clause.

There is a similar example that looks like it could be conjunct drop, but a closer look once again favours the verbless clause analysis. The syntax of (54) is the same as (52a), except the null subject with a *wayyiqtol* is predictable in (52a), while it is surprising with the participle in (54).<sup>33</sup> On its own, (54) could be taken as a conjunct-drop example, but there is a parallel statement in (55) that cannot be taken as an example of conjunct drop.

<sup>33</sup> According to Naudé (1999:89–90) the participle should not be able to take a null subject, because it has underspecified agreement features. Example (54) is not the lone outlier. When a participle occurs after הָיָה and the subject is prominent in the previous context, the verb displays *pro*-drop with some regularity: Gen 24:30; 37:15; 41:1; 42:22; Exod 7:15; 8:16; Num 23:6; 1 Sam 15:12; 16:11; 2 Sam 16:3; 2 Kgs 1:9; Isa 29:8[x2]; Jer 10:22; Exod 7:5, 6, 10; 21:12; 30:9; 33:33; 37:11; 39:8; Amos 7:1, 4; Mal 3:1; Dan 8:15. These are far too many examples to dismiss, but neither have I read anyone who acknowledges them and addresses this phenomenon. Nevertheless, it is outside the scope of this thesis to determine how a null subject is licensed in (54). It is sufficient here simply to note that it is null and, thus, the syntax of (54) is sufficiently similar to (52a).

- (54) בָּאוּ אֶל-אָחִיךָ אֶל-עֵשָׂו וְגַם הֵלֵךְ לִקְרַאתְךָ וְאַרְבַּע-מֵאוֹת אִישׁ עִמּוֹ:  
 (Gen 32:7)  
*bā'nū 'el 'āhî-kā 'el 'ēsāw wə-ḡam hōlēk*  
 come.PFV.1CP to brother-2MS to Esau and-also walk.PTCP.MS  
*li-qrā'tā-kā wə-'arba' mē'ōt 'iš 'imm-ō*  
 to-meet-2MS and-four.GEN hundreds man with-3MS  
 “We came to your brother, to Esau, and also (he) is walking to meet you, and four hundred men are with him.”

- (55) וַיֵּרָא וְהִנֵּה עֹשֶׂה בָּא וְעִמּוֹ אַרְבַּע מֵאוֹת אִישׁ (Gen 33:1)  
*wayyar' wə-hinnē 'ēsāw bā' wə-'imm-ō 'arba'*  
 see.WCIPFV.3MS and-behold Esau come.PTCP.MS and-with-3MS four.GEN  
*mē'ōt 'iš*  
 hundreds man  
 He looked and, behold, Esau was coming, and with him were four hundred men.

In (55), the PP *with him* has been fronted, so the following NP must be the subject of a verbless clause. Example (55) shares all of the same constituents as (54), and it clearly recalls the earlier verse. Jacob can now see that what his servant had told him is happening. The parallel indicates that (54) should also be viewed as a verbless clause.

Not all of the possible conjunct-drop examples are better explained as verbless clauses. Example (56) cannot be a verbless clause, because it lacks an NP or PP that can be taken as the predicate. It certainly could be a case of conjunct drop (e.g. “The priest was standing at the opening of the gate, [he] and the 600 hundred men girded with weapons of war.”). But it is safer to take it as another example of the common pattern of stripping, the remnant having contrastive Focus with an additive interpretation.

- (56) וְהַכֹּהֵן נֹצֵב פֶּתַח הַשַּׁעַר [וְשֵׁשׁ-מֵאוֹת הָאִישׁ הַחֲגוּר כָּלִי הַמְּלַחְמָה:]  
 (Judg 18:17)  
*wə-hak-kōhēn niššāb peṭaḥ haš-ša'ar wə-šēš mē'ōt*  
 and-ART-priest stand.PTCP.MS opening.GEN ART-gate and-six hundreds  
*hā-'iš he-ḥāḡûr kālê ham-milḥāmā*  
 ART-man ART-girded.PTCP.MS weapons.GEN ART-war  
 The priest was standing at the opening of the gate, [and the 600 men girded with weapons of war were standing at the opening of the gate].

In sum, while conjunct drop fits within a complementation analysis of coordination, the examples in the Pentateuch are better taken as verbless clauses or as derived from stripping.<sup>34</sup>

### 5.3.6 Analysis of “Comitative *Waw*”

Some have contended that *waw* has a comitative use “with” (GKC §154a, WHS §436). As in the previous section, these instances are better analysed as verbless clauses or as resulting from gapping or stripping. The last phrase in (57) has been taken as a comitative “with its top in the heavens” (BDB 1977:253, WHS §494), but the parallel with a participle predicate in (58) favours a verbless clause.<sup>35</sup>

- (57) הָבָה | נִבְנֶה-לָנוּ עִיר וּמִגְדָּל וְרֵאשׁוּ בְּשָׁמַיִם (Gen 11:4)  
*hābā nibnē lā-nū ’ir û-miġdāl wə-rō ’š-ô*  
 come.IMP.2MP build.COH.1CP to-1CP city and-tower and-head-3MS  
*baš-šāmayim*  
 in.ART-heavens  
 “Come, let us build ourselves a city and a tower, and its top shall be in the heavens.”

- (58) וַיַּחְלֹם וְהִנֵּה סֻלָּם מַצֵּב אֶרֶץ וְרֵאשׁוּ מִגֵּיעַ הַשָּׁמַיִם (Gen 28:12)  
*wayyahālôm wə-hinnē sullām muššāb ’arṣ-â*  
 dream.WCIPFV.3MS and-behold ladder placed.PTCP.MS earth-LOC  
*wə-rō ’š-ô maggîa’ haš-šāmāyām-â*  
 and-top-3MS reach.PTCP.MS ART-heaven-LOC  
 He dreamed and, behold, a ladder was set up on the earth, and its top was reaching towards the heavens.

The verbless clause in (57) must be understood as a volitive—“its top *shall be*”—following the cohortative “let us build.” In his unpublished PhD thesis, Wilson (2017:112–120) argues that a volitive or future-tense clause requires an overt form of הִיָּה, but (59) indicates future tense without an overt verb.<sup>36</sup>

<sup>34</sup> Thus, it is more a matter of a conjunct-drop clause being unattested rather than impossible, contra IBHS §16.3.2.

<sup>35</sup> Addition examples have often been translated as a comitative phrase but are better understood to be a verbless clause: Gen 24:15, 45; 45:26; Exod 26:25; 32:15; 34:29; Num 22:23, 31; 31:6.

<sup>36</sup> In his updated published monograph, Wilson (2020b:74–75) now recognises that there are rare cases (e.g. 1 Sam 28:19) in which *hyh* may be absent if the surrounding context clearly indicates future tense.

- (59) לְמוֹעֵד אָשׁוּב אֵלֶיךָ כְּעֵת חַיָּה וּלְשָׂרָה בֵּן: (Gen 18:14)  
*lam-mô ‘ēd ‘āšûb ‘elê-kā kā ‘ēt hayyâ*  
 to.ART-appointment return.IPFV.1CS to-2MS as.ART-time alive.ADJ.MS  
*û-lə-šārâ bēn*  
 and-to-Sarah son  
 “At the appointed time I will return to you, in about a gestational time period,<sup>37</sup>  
 and Sarah will have a son.”

Sarah is childless while God is talking, but she will have a son when he returns. Since (59) shows that a verbless clause may be future tense, it is no problem that (57) has volitive mood.

Other cases that have been translated as comitative phrases (“with its stand” in [60] and “with its head” in [61]) are better understood to be the remnants of gapping (60) or stripping (61).

- (60) וַעֲשִׂיתָ כִּיּוֹר נְחֹשֶׁת וְכַנּוֹ נְחֹשֶׁת לְרַחֵץ (Exod 30:18)  
*wə ‘āsītā kiyyôr nəḥōšet wə-kann-ô nəḥōšet lə-roḥšâ*  
 make.WCPFV.2MS basin bronze and-stand-3MS bronze to-wash.INF  
 “You shall make a basin of bronze, and [you shall make] its stand of bronze, for washing.”
- (61) וַנִּתַּח אֹתוֹ לְנִתְחָיו [וְאֶת־רֹאשׁוֹ וְאֶת־פִּדְרֹו] (Lev 1:12)  
*wənitṭaḥ ‘ōt-ô lī-nəṭāḥāy-w wə-’et rō ‘š-ô wə-’et*  
 chop.WCPFV.3MS ACC-3MS to-pieces-3MS and-ACC head-3MS and-ACC  
*pidr-ô*  
 fat-3MS  
 “And he shall chop it into pieces, [and its head and its fat; ~~he shall chop~~ \_\_\_\_i].

Example (61) is another case where the adjunct from the base clause cannot modify the remnant complex in the stripped clause. While the animal’s head is cut, it cannot be chopped into pieces, because it is elsewhere described as distinct from what does get chopped into pieces (Lev 8:20).

The purported comitative use of *waw* at the phrase level is related to the well-known phenomenon that *waw* can introduce a circumstantial clause.<sup>38</sup> However, *waw* does not have

<sup>37</sup> I take the idiom כְּעֵת חַיָּה (lit. “as the time is alive”) to refer to the time it takes to grow a child in the womb. The phrase is used in one other passage (2 Kgs 4:16), where the next verse records that the woman became pregnant.

<sup>38</sup> GKC §141e, §142e, §156; IBHS §39.2.3; JM §159d–e; WHS §494–495; BHRG §40.23.4.2.

the meaning of “with” at the phrase level, nor does it mean “while” at the clause level. As Steiner (2000:260) argues, “Such clauses are distinguished not by their conjunction but by their word order: where the subject is definite, it comes first.” *Waw* does not mark a circumstantial clause *per se*, because such clauses can occur without the use of any conjunction (Exod 22:9, 13). Instead, *waw* simply marks syntactic coordination. All purported instances of a comitative use are better analysed as verbless clauses or as resulting from gapping or stripping. There is no such thing as “comitative *waw*.”<sup>39</sup>

### 5.3.7 Summary

The main prediction of complementation—there is no conjunct movement—still stands. All examples of “split coordination” are produced by clausal ellipsis—whether gapping (§5.3.2), stripping (§5.3.3), or RNR (§5.3.4)—in order to signal contrast between the remnant(s) and the correlate(s). Conjunct drop, on the other hand, does not pose a threat to complementation, because while neither conjunct may move, the external conjunct need not be overt in some cases. Nevertheless, all reported cases of conjunct drop can be read as verbless clauses or as resulting from gapping or stripping. Similarly, all purported cases of “comitative *waw*” should be analysed as deriving from ellipsis or as being examples of a verbless clause.

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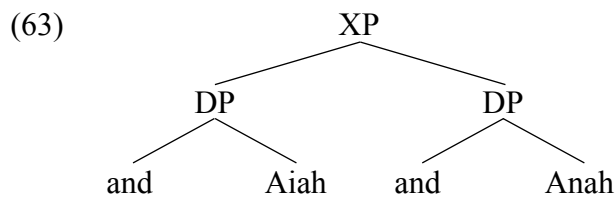
<sup>39</sup> In a recent analysis, Zewi (2017) performs a comprehensive survey of all of the purported instances of “comitative *waw*,” and concludes that there are only three possible examples (Exod 1:5; 1 Sam 14:18; 2 Sam 12:30), and each of these can take another analysis. In Exod 1:5, the difficulty is not in the grammar, but in concluding whether Joseph is being included in the number of Jacob’s descendants. In 1 Sam 14:18, the phrase **וּבְנֵי יִשְׂרָאֵל** may function as a comitative, “with the people of Israel,” but the LXX (ἐνώπιον) is a witness that the Hebrew should probably read **לְפָנַי יִשְׂרָאֵל**. In 2 Sam 12:30, the phrase **וְאֶבְנֵי יִרְדָּה** could be the result of stripping or from a scribal omission of the PP (cf. 1 Chron 20:2). Given these data, Zewi (2017:156) rightly concludes, “Only three examples, in which a need to solve a difficulty in the Hebrew text is felt, are in any case too scarce to allow the presentation of the meaning ‘with’ or ‘together with’ for the *waw* as genuine and equal in status to its other meanings.”

## 5.4 Initial Coordination

I use the term *initial coordination* (Hendriks 2001) to refer to constructions where each conjunct is preceded by a coordinator.<sup>40</sup> One of the most likely examples of this phenomenon in the Pentateuch is (62).

- (62) וְאֵלֶּה בְּנֵי-צִבְעוֹן וְאִיָּה וְעָנָה (Gen 36:24)  
*wə-’ēllē bənē šib’ôn wə-’ayyâ wa-’ānâ*  
 and-these sons.GEN Zibeon and-Aiah and-Anah  
 These are the sons of Zibeon: both Aiah and Anah.

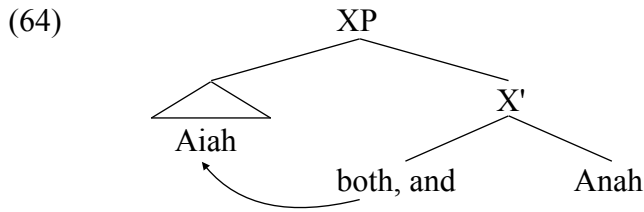
Initial coordination poses a problem for complementation if both coordinators are conjunction heads. In such a scenario, one conjunct cannot be the specifier of the conjunction head with the other as its complement (Sag et. al. 1985, Grootveld 1992, Borsley 2005), because each conjunction head takes a complement of its own with no specifier.



The structure of (63) would pose an insurmountable problem for the complementation analysis, but it must first be demonstrated that the “initial coordinator” is a true conjunction.

The “initial coordinator,” however, is not a true conjunction (de Vries 2005, Johannessen 2005, Chaves 2007). Instead, it is most likely a parasitic Focus particle (see §3.2.2; cf. Hendriks 2003, 2004b, Zhang 2008). Thus, (64) is the more likely structure, which Zhang (2008:324) explains as follows: “[The Focus particle] and its associate conjunction [head] are always base-generated as a cluster ... and the cluster is split, causing the [Focus particle] to be away from the conjunction.”

<sup>40</sup> Haspelmath (2007) calls it “emphatic coordination”; Progovac (1998) calls it “conjunction doubling”; Zhang (2008) calls it “repetitive conjunction”; Anderson (2013) calls it “correlative conjunction.”



Thus, there is only one true conjunction head in initial-coordination structures, and complementation still holds, with one conjunct as the specifier and one as the complement.

There is cross-linguistic variation for initial coordination, something Haspelmath (2007:15) calls “emphatic coordination.” There can be emphatic conjunction (*both ... and*) or emphatic disjunction (*either ... or*). Haspelmath suggests that in emphatic coordination, each conjunct is considered separately as belonging to the predication. Thus, while there is considerable overlap in using normal versus emphatic coordination (65), sometimes emphatic coordination is precluded (66).

(65) (Both) Guatemala and Belize are in Central America.

(66) (\*Both) Spanish and Portuguese are similar. (Haspelmath 2007:15)

Languages vary in the form of the emphatic coordinators. In some languages, the emphatic coordinators are identical to the single coordinator (67a); in some, only the second is identical to the single coordinator (67b); in some, they are identical to each other but different from the single coordinator (67c); and finally for some, they are different from each other and from the single coordinator (67d) (Haspelmath 2007:16–17).

(67a) Russian: *i ... i* *i*

(67b) English: *both ... and* *and*

(67c) Korean: *-to ... -to* *-hako*

(67d) German: *sowohl ... also auch* *und*

These same language patterns for conjunction are also reflected in how disjunction is expressed. But how does Hebrew fit into this inventory?

The clearest expression of emphatic coordination in Hebrew follows the Korean pattern (67c). Emphatic coordinators are identical to each other, whether in conjunction (68–69) or disjunction (70–74), but different from the single coordinator.

- (68) Emphatic Conjunction Pattern 1: **וְגַם ... וְגַם**<sup>41</sup>  
**וְהַנְעַר שְׂמוּאֵל הַלֵּךְ וְגָדַל וְטוֹב גַּם עִם-יְהוָה וְגַם עִם-אֲנָשִׁים:** (1 Sam 2:26)  
*wə-han-na 'ar šəmû 'el hōlēk wə-ḡādēl wā-tōb*  
 and-ART-lad Samuel walk.PTCP.MS and-big.ADJ.MS and-good.ADJ.MS  
*gam 'im yhwh wə-ḡam 'im 'anāšîm*  
 also with YHWH and-also with men  
 The lad Samuel was growing in stature and goodness, both with YHWH and with men.
- (69) Emphatic Conjunction Pattern 2: **גַּם ... גַּם**<sup>42</sup>  
**וַיַּעַל עִמּוֹ גַּם-רֶכֶב גַּם-פָּרָשִׁים** (Gen 50:9)  
*wayya 'al 'imm-ô gam rekeb gam pārāšîm*  
 ascend.WCIPFV.3MS with-3MS also chariot(s) also horsemen  
 Both chariots and horsemen went up with him.
- (70) Emphatic Disjunction Pattern 1: **וְגַם ... וְגַם**<sup>43</sup>  
**וְגַם-אַתָּה לֹא-הִגַּדְתָּ לִּי וְגַם-אֲנֹכִי לֹא שָׁמַעְתִּי בְּלִתִּי הַיּוֹם:** (Gen 21:26)  
*wə-ḡam 'attā lō' higgadtā l-î wə-ḡam 'anōkî lō'*  
 and-also you.NOM.MS not tell.PFV.2MS to-1CS and-also I.NOM not  
*šāma 'tî biltî hay-yôm*  
 hear.PFV.1CS without ART-day  
 “And neither did you tell me nor did I hear until today.”
- (71) Emphatic Disjunction Pattern 2: **גַּם ... גַּם**<sup>44</sup>  
**גַּם-לִּי גַּם-לְךָ לֹא יְהִי גְזוֹר:** (1 Kgs 3:26)  
*gam l-î gam l-āk lō' yihyê gəzōrû*  
 also to-1CS also to-2FS not be.IPFV.3MS cut.IMP.2MP  
 “He shall be neither mine nor yours. Cut (him in two)!”

<sup>41</sup> This example comes from van der Merwe (2009:316), who also lists Gen 14:16; Josh 7:11 (pp. 319–320). GKC §154 n. 1 lists Gen 24:44.

<sup>42</sup> This example comes from van der Merwe (2009:319–320), who also lists Exod 5:14; Judg 5:4; 8:22; 19:19; 1 Kgs 3:13; Jer 14:18; Ezek 24:5; Mal 3:15; Ruth 1:12; Eccl 9:6; 1 Chron 11:2. GKC §154 n. 1 lists Gen 24:25; 32:20. WHS §378 lists Gen 44:16. To this list, I add the following examples: Gen 43:8; 46:34; 47:3, 19; Exod 12:31, 32.

<sup>43</sup> This example is recorded in GKC §162b, BHRG §40.20, and van der Merwe (2009:316).

<sup>44</sup> This example comes from van der Merwe (2009:319–320), who also lists Num 18:3; Isa 48:8; Jer 6:15. GKC §162b lists Zeph 1:18. WHS §378 lists 1 Sam 20:27. To this list I add Exod 4:10 from my corpus.

- (72) Emphatic Disjunction Pattern 3: או ... או<sup>45</sup>  
או-יוֹמוּ יָבוֹא וּמָת אוּ בַמִּלְחָמָה יֵרֵד וְנִסְפָּה: (1 Sam 26:10)  
'ó yóm-ó yābó' wāmēṭ 'ó ḥam-milḥāmā  
or day-3MS come.IPFV.3MS die.WCPFV.3MS or in.ART-battle  
yērēḏ wānispā  
descend.IPFV.3MS carried.away.WCPFV.3MS  
“Either his day will come and he will die, or he will go down in war and be carried away.”
- (73) Emphatic Disjunction Pattern 4: אם ... אם<sup>46</sup>  
מֵאֵת זִבְחֵי הַזֶּבַח אִם-שׁוֹר אִם-שֶׁה (Deut 18:3)  
mē-’ēṭ zōbḥē haz-zebḥ ‘im šôr ‘im sé  
from-with sacrifice.PTCP.MP.GEN ART-sacrifice if ox if lamb  
“... from those who sacrifice the sacrifice, whether an ox or a lamb”
- (74) Emphatic Disjunction Pattern 5: אף ... אף<sup>47</sup>  
אֵף אִין־מְגִיד אֵף אִין־שֹׁמֵעַ אֵף אִין־מְרִיבִים: (Isa 41:26)  
’ap̄ ’ên maggîd ’ap̄ ’ên mašmîa’ ’ap̄ ’ên  
even NEGEX tell.PTCP.MS even NEGEX announce.PTCP.MS even NEGEX  
šōmēa’ ’imrê-kem  
hear.PTCP.MS words-2MP  
There was neither one who declared nor one who announced nor one who heard your words.

What remains to be seen is whether conjunction *waw* can be used in what Haspelmath (2007) calls emphatic-coordination constructions.

Hebrew grammars rarely suggest emphatic coordination examples with *waw*, but there do seem to be at least two clear NP examples outside the Pentateuch (75)–(76).<sup>48</sup>

- (75) מְגַעַרְתָּךְ אֱלֹהֵי יַעֲקֹב נִרְדָּם וְרֶכֶב וְסוּסִים: (Ps 76:7)  
mig-ga ‘ārātā-kā ’ēlohē ya ‘āqōb nirdām wā-rekeb wā-sūs  
from-rebuke-2MS God.GEN Jacob sleep.PTCP.MS and-chariot and-horse  
“‘At your rebuke, O God of Jacob, there were sleeping both chariot and horse.”

<sup>45</sup> This example comes from BHRG §40.3, which also lists Num 9:22.

<sup>46</sup> This example comes from BHRG §40.11.

<sup>47</sup> This example comes from BHRG §40.3, which also lists Isa 40:10, 24; 44:15; 46:11.

<sup>48</sup> These examples come from GKC §154 n.1; there are no other reported examples of emphatic NP coordination. Regarding emphatic PP coordination, GKC §162b lists Dan 1:3; Isa 2:13–16; and Job 34:29 as clear examples; they also suggest Jer 32:20 (cf. BHRG §40.23.3.1), but this seems to be an unlikely example. Regarding emphatic CP coordination, GKC §162b suggests Lev 5:3 and Deut 24:7, but these seem to be unlikely examples.

- (76) תַּתּוּ וְקִדְשׁ וְצַבָּא מִרְמָס׃ (Dan 8:13)  
*tēt wə-qōdeš wə-šābā' mirmās*  
 give.INF and-holiness and-army trampling  
 “giving both sanctuary and army for trampling”

Crucially, the “initial coordinator” in (75)–(76) is not clause-initial. Since these examples do not meet the requirements for stripping, the first *waw* cannot be mistaken for clause-level coordination, which leaves initial coordination as the most likely interpretation.

When the first *waw* is clause-initial (77)–(78), it is more likely that it represents clausal coordination. But emphatic coordination cannot be ruled out as a possibility.<sup>49</sup>

- (77) שְׁבוּ-לָכֶם פֹּה עִם-הַחֲמֹר וְאֲנִי וְהַנֶּעֱר גְּלָהָ עַד-כֹּה (Gen 22:5)  
*šəbū lā-kem pō 'im ha-hāmôr wa-'ānī wə-han-na'ar*  
 sit.IMP.2MP to-2MP here with ART-donkey and-1.NOM and-ART-lad  
*nēlakā 'ad kô*  
 walk.COH.1CP until here  
 “Sit here with the donkey. And (Both?) I and the lad shall walk that way.”

- (78) וְאֶת-חֲמֹר וְאֶת-שֶׁכֶם בְּנוֹ הָרְגוּ לְפִי-חָרֵב (Gen 34:26)  
*wə-'et hāmôr wə-'et šəkem bən-ô hārəgū*  
 and-ACC Hamor and-ACC Shechem son-3MS kill.PFV.3MP  
 And (Both?) Hamor and Shechem his son they killed.

The only other clear example of emphatic coordination in the Pentateuch is (79),<sup>50</sup> because the coordinate PP is not clause-initial.

- (79) חֻקָּה אַחַת יִהְיֶה לָכֶם וְלַגֵּר וְלְאֲזִרָה אַרְצֵי׃ (Num 9:14)  
*ḥuqqā 'aḥat yihyē lā-kem wə-lag-gēr ū-lə-'ezrah*  
 statute one be.IPFV.3MS to-2MP and-to.ART-stranger and-to-native.GEN  
*hā-'āreš*  
 ART-land  
 “One statute will there be for you, both for the stranger and for the native of the land.”

Even (79) depends on an interpretation of the second two PPs *for the stranger and for the native of the land* standing in apposition to the first PP *for you* (pl). It could be that these three

<sup>49</sup> For other examples, see Gen 3:18; 9:2; 18:11; 27:37; 33:13; Exod 7:29; 11:10; 17:12; 19:24; Deut 3:7; 17:17.

<sup>50</sup> GKC §162b confirms this as an example of emphatic coordination.

PPs denote three groups of people in the Passover command: you, the stranger, and the native. However, אֲזָרַח refers to the native-born Israelite in the land (see Lev 23:42; Num 15:29; Ezek 47:22). Also, the Passover stipulations are given to two groups elsewhere—the native Israelite and the stranger (Exod 12:19, 48, 49). Finally, even the context addresses the native Israelite first (Num 9:9–13) and then the stranger dwelling in the land (9:14), confirming that (79) should be read as addressing two groups with initial coordination.

Returning to a fuller version of Gen 36:24, copied below as (80), we see that the coordinate NP is not clause-initial.

- (80) וְאֵלֶּה בְּנֵי־צִבְעוֹן וְאִיָּה וְעֵנָה הוּא עֵנָה אֲשֶׁר מָצָא אֶת־הַיַּמִּם בְּמִדְבָּר  
 (Gen 36:24)  
 wə-’ēllē ḥənē sib’ôn wə-’ayyā wa-’ānā hū’ ’ānā ’āšer  
 and-these sons.GEN Zibeon and-Aiah and-Anah he.NOM Anah that  
 māšā’ eṭ hay-yēmīm bam-midbār  
 find.PFV.3MS ACC ART-hot.springs in.ART-desert  
 These are the sons of Zibeon: both Aiah and Anah. He is the Anah who found  
 the hot springs in the desert.

There is no predicate for the coordinate NP, so the initial *waw* cannot be a clause-level coordinator. As in (79), it must be either a Focus particle or a *waw explicativum*. Whether *waw* actually has an explicating function is questionable (see §7.4). Nevertheless, such a function in (80) would be redundant since the null predicate itself signals explication: אֵלֶּה בְּנֵי־צִבְעוֹן “These are the sons of Zibeon.”

It is important to note that nowhere else in Genesis is the genealogical expression “These are the sons of \_\_\_\_:” followed by a conjunct with a prefixed *waw*.<sup>51</sup> Indeed, even the parallel passage in (81) lacks an initial *waw* and the explanatory statement for who Anah was.

<sup>51</sup> For the relevant verses, see Gen 10:1; 25:13–15; 36:10, 13, 20, 23, 24, 25, 26, 27, 28.

- (81) וּבְנֵי צִבְעוֹן אִיָּה וְאַנָּה: (1 Chron 1:40)  
*û-bənê šib'ôn 'ayyâ wa-ānâ*  
 and-sons.GEN Zibeon Aiah and-Anah  
 The sons of Zibeon were Aiah and Anah.

The explanatory note of who Anah was in Gen 36:24 is the only such statement headed by אִיָּה in the whole chapter, except for those verses that connect Esau with Edom (Gen 36:1, 8, 19, 43). Thus, it seems all the more likely that the initial *waw* in (80) is meaningful as a Focus particle, and so it appears that BH is a mixed system in marking emphatic coordination with both the (67a) and (67c) patterns. Nevertheless, the fact that there are only two clear examples of emphatic coordination in the Pentateuch that fit the (67a) pattern means that we should doubt that other possible examples (77–78) are actual cases of emphatic coordination.

## 5.5 Final Coordination

There is one more coordination structure that is often cited as evidence against complementation: final coordination. I use the term *final coordination* to refer to any construction with more than two conjuncts but only one coordinator, which occurs before the final conjunct (82). This is in contrast to *multiple coordination*, where a coordinator separates each conjunct (83). Often the difference appears inconsequential, as the following minimal pair seems to demonstrate.

- (82) שֵׁם חָם וַיָּפֶת (Gen 10:1)  
*šēm ḥām wā-yāpēṭ*  
 Shem Ham and-Japheth  
 Shem, Ham, and Japheth

- (83) שֵׁם וְחָם וַיָּפֶת (Gen 9:18)  
*šēm wə-ḥām wā-yāpēṭ*  
 Shem and-Ham and-Japheth  
 Shem and Ham and Japheth

As one author puts it, “At the phrase level, we commonly find asyndeton operating much like a serial comma in English” (DeRouchie forthcoming). It has, no doubt, been tempting to see no syntactic or semantic difference between final coordination and multiple coordination.

Nevertheless, the two constructions are different, even just in terms of frequency. Regarding coordinate NPs, there are 176 examples of multiple coordination<sup>52</sup> and just 55 examples of final coordination.<sup>53</sup> And regarding coordinate PPs, there are 93 examples of multiple coordination<sup>54</sup> and just 44 examples of final coordination.<sup>55</sup>

The primary difference between the two constructions, however, is that multiple coordination uniquely allows for sub-constituency (Borsley 2005, Winter 2006). Or, as Zhang (2010:73) puts it, only in multiple coordination can “two conjuncts form a maximal projection independent of the third conjunct.” Semantically, multiple coordination allows for a mixture of distributive and collective meaning (84a), in contrast to final coordination in (84b) (cf. de Vries 2005). The multiple coordination example (84a) can be interpreted as (i) each of them lifting the rock, (ii) them lifting the rock all together, (iii) the first two lifting together, or (iv)

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<sup>52</sup> Gen 1:24; 2:1; 7:7, 13, 14; 8:1, 18, 22; 9:18; 10:2, 3, 6, 7, 10, 19, 22, 23; 13:14; 15:9; 19:12; 20:14, 17; 23:1, 17; 24:35, 53, 59; 25:3, 4, 7, 17; 28:14; 30:32, 37; 34:23; 35:23; 36:20–21, 26, 27; 37:25; 38:18, 25; 45:23; 46:9, 10, 12, 13, 14, 17, 24, 32; 47:1; 50:8; Exod 3:22; 6:15, 16, 18, 22, 24; 10:6; 12:35; 14:7, 9; 20:17; 25:4, 5, 29; 26:1, 31, 36; 27:16; 28:20, 33; 29:1–2, 14; 32:27; 35:5, 6, 7, 13, 14, 15, 18, 22, 23, 35; 36:8, 35, 37, 38; 37:16; 38:18, 23, 30, 31; 39:24, 29, 34, 35; 40:31; Lev 4:11–12; 7:12, 23; 8:11, 17, 26; 9:22; 11:46; 14:4, 10, 45, 49; 23:18; 26:46; Num 1:46; 2:9, 24, 32; 3:17, 27, 31, 36, 37, 38, 46, 50; 4:9, 31, 32, 40, 48; 5:2; 7:1; 11:32; 16:16; 19:6; 20:5; 26:9, 51, 59; 28:19; 29:6, 11, 19, 22, 25, 28, 38; 31:20, 32, 33–35, 36, 52; 32:3; Deut 1:12; 2:37; 3:10, 17, 19, 27; 4:45; 6:17, 20; 8:8, 11; 11:1, 14; 18:3; 20:14; 26:17; 27:12; 28:65; 29:3; 30:16; 32:14[x2].

<sup>53</sup> Gen 1:12; 5:32; 6:10; 8:19; 10:1; 11:26, 27; 14:24; 26:5; 31:42; 46:11; Exod 2:14; 3:6, 16; 4:5; 14:23; 17:10; 18:21, 25; 21:5; 23:28; 28:17, 18, 19; 32:2; 35:19; 37:20; 39:10, 11, 12, 13, 36, 41; Lev 1:8; 19:36; Num 4:36; 7:13; 13:22; 16:24, 27; 29:16; 31:37; 32:26; Deut 3:5, 6; 4:11; 5:22; 6:1; 8:7; 14:23; 18:4; 27:19; 28:20; 29:2, 10.

<sup>54</sup> Gen 1:26, 28, 30; 2:20; 3:15; 7:21; 8:17; 9:9–10, 12, 15; 13:8; 17:7, 10; 19:16; 21:23; 31:33; 33:1; 47:17; Exod 7:28, 29; 8:5, 7, 17; 29:20, 21; 31:3, 4–5; 35:21, 28, 32; 36:2; 38:23; 39:3; Lev 8:23, 24; 9:1; 10:10, 12; 11:47; 14:14, 17, 25, 28, 52; 15:33; 16:17; 17:2; 20:25; 21:24; 22:18; 23:38; Num 1:50; 4:3, 23, 30, 35, 39, 43, 47; 10:10; 12:4; 13:26; 15:33; 18:9, 19; 19:18; 29:39; 31:12, 28; 32:2; 35:3, 15; Deut 1:16; 5:9; 6:5; 9:22, 27; 14:26; 15:14; 16:16; 26:8, 19; 28:11, 22, 27, 28, 48, 54, 56; 29:1, 7; 33:13–15; 34:11.

<sup>55</sup> Gen 6:7; 7:23; 9:10; 13:2; 50:24; Exod 2:24; 6:3, 8; 8:1, 9, 25, 27; 9:3; 14:18, 26; 20:5; 32:13; 33:1; Lev 1:2; 19:35; 22:19; Num 14:18; 29:18, 21, 24, 27, 30, 33, 37; 32:11; Deut 1:8; 2:8; 6:10; 9:5, 27; 17:8; 24:19, 20, 21; 26:12; 28:37; 29:12; 30:20; 34:4.

the second two lifting together. The final coordination example (84b) can have only interpretations (i) and (ii).

(84a) Hobbs and Rhodes and Barnes lifted the rock. (Borsley 2005:468–469)

(84b) Hobbs, Rhodes, and Barnes lifted the rock.

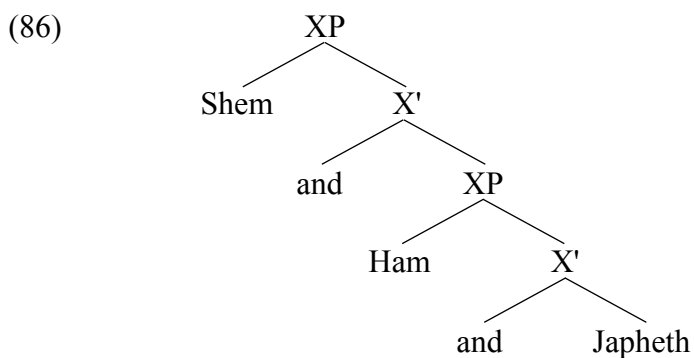
Syntactically, multiple coordination uniquely allows for gapping (85a), while final coordination does not (85b).

(85a) Tom ate a hamburger, and Alice drank a martini, and Jane a beer.

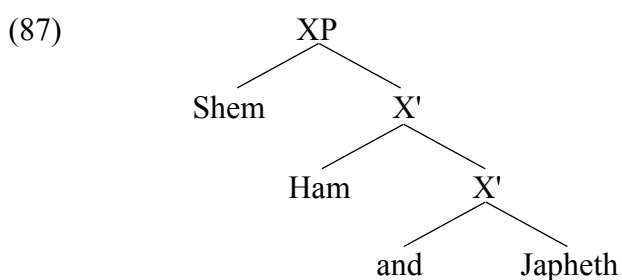
(85b) \*Tom ate a hamburger, Alice drank a martini, and Jane a beer.

Multiple coordination is the unmarked structure in BH for three or more conjuncts. It occurs nearly three times as much as final coordination, it occurs in more syntactic environments, and it allows for more interpretations for how the conjuncts are grouped together.

Thus, the two coordination strategies represent two different syntactic structures in BH. Multiple coordination is a multi-headed structure that has as many maximal projections as conjunction heads (86), which allows for sub-constituency.



Final coordination has only one maximal projection as a multiple-spec structure (87).



Since multiple coordination (86) allows for sub-constituency while final coordination does not (87), the difference in structure leads to some different interpretations.

Final coordination has only one maximal projection, so it is the simpler, more limited structure. It is limited in that 90.8% of the examples consist of three conjuncts, and there are no examples with more than five conjuncts (88). Prosodically, the conjuncts of final coordination are all grouped together, which is why the list of conjuncts cannot be very long. On the other hand, 41.5% of multiple coordination examples consist of four or more conjuncts, with examples of eight or more conjuncts (89). Final coordination is also simpler in that it does not allow for sub-constituency (88), while multiple coordination allows for lists of semantic pairs (89).

- (88) בְּסוּסִים בְּחֹמְרִים בְּגַמְלִים בְּבָקָר וּבְצֹאן (Exod 9:3)  
*bas-sūsîm ba-ḥāmōrîm bag-ġəmallîm bab-bāqār û-ḥaš-šō'n*  
 in.ART-horses in.ART-donkey in.ART-camels in.ART-herd and-in.ART-flock  
 among the horses, the donkeys, the camels, the cattle, and the flocks

- (89) צֹאן וּבָקָר וְכֶסֶף וְזָהָב וְעַבְדִּים וְשִׁפְחֹת וְגַמְלִים וְחֹמְרִים: (Gen 24:35)  
*šō'n û-ḥāqār wə-keseḇ wə-zāhāḇ wa-ʿābādîm û-šəpāhōt*  
 flock and-herd and-silver and-gold and-slaves and-female.slaves  
*û-ġəmallîm wa-ḥāmōrîm*  
 and-camels and-donkeys  
 flocks and herds and silver and gold and male slaves and female slaves and  
 camels and donkeys

In (88), the five conjuncts comprise the “livestock that are in the field” (Exod 9:3); in (89), four of the same conjuncts form pairs (*flocks and herds* and *camels and donkeys*) around two other pairs referring to money and manpower.

The complexity afforded by multiple coordination goes beyond a list of semantic pairs. It allows for a structure that includes conjunct binding, sub-constituency, and apposition, as in (90).

- (90) בְּעֶצְם הַיּוֹם הַזֶּה בָּא נֹחַ וְשֵׁם־וְחָם וְיָפֶת בְּנֵי־נֹחַ וְאִשְׁתּוֹ נָח וּשְׁלֹשֶׁת נְשֵׁי־בָנָיו  
 אִתָּם אֶל־הַתֵּבָה: (Gen 7:13)  
*bə-‘ešem hay-yôm haz-zê bā’ nōaḥ wə-šēm wə-hām*  
 in-bone.GEN ART-day ART-this come.PFV.3MS Noah and-Shem and-Ham  
*wā-yepeṭ bānê nōaḥ wə-’ēšet nōaḥ û-šalōšet nāšê*  
 and-Japheth sons.GEN Noah and-wife.GEN Noah and-three.GEN wives-GEN  
*bānāy-w ’itt-ām ’el hat-tēbā*  
 sons-3MS with-3MS to ART-ark  
 On this same day Noah and Shem and Ham and Japheth, Noah’s sons, and  
 Noah’s wife, and the three wives of his sons with them came into the ark.

The complexity of (90) could not have been expressed using final coordination. In fact, the most complexity a final coordination structure affords is binding the latter conjuncts to the first (91).

- (91) בְּהִכְבְּדֵי בְּפָרְעָה בְּרִכְבוֹ וּבְפָרְשָׁיו: (Exod 14:18)  
*bə-hikkābəd-î bə-pār’ô bə-riḵb-ô û-bə-pārāšāy-w*  
 in-honored.INF-1CS in-Pharaoh in-chariot-3MS and-in-horsemen-3MS  
 “in my being honored by Pharaoh, by his chariots, and by his horsemen”

Final coordination does not allow for complexity, because there is only one maximal projection. The conjuncts are all prosodically bound together, and symmetry must hold between them.

Another difference in interpretation is that a following appositive must modify the whole final-coordination structure (92), but may modify part of a multiple coordination structure (93).

- (92) זָכֹר לְאַבְרָהָם לְיִצְחָק וּלְיִשְׂרָאֵל עַבְדֶּיךָ (Exod 32:13)  
*zəḵōr lə-‘abrāhām lə-yiṣḥāq û-lə-yiśrā’el ‘ābādê-kā*  
 remember.IMP.2MS to-Abraham to-Isaac and-to-Israel servants-2MS  
 “Remember Abraham, Isaac, and Israel, your servants.”
- (93) וַיְדַבֵּר מֹשֶׁה אֶל־אַהֲרֹן וְאֶל־אֶלְעָזָר וְאֶל־אִיתָמָר בְּנֵי הַנּוֹתָרִים׃ (Lev 10:12)  
*wayəḏabbēr mōšê ’el ’ahārōn wə-’el ’el’āzār wə-’el ’itāmār*  
 speak.WCIPFV.3MS Moses to Aaron and-to Eleazar and-to Ithamar  
*bānāy-w han-nōtārīm*  
 sons-3MS ART-remain.PTCP.MP  
 Moses spoke to Aaron, and to Eleazar and to Ithamar, his remaining sons.

The multiple coordination in (93) affords a prosodic break after the first conjunct *to Aaron*, indicated by the *rebia*, which aids the reader in properly identifying the second two conjuncts as Aaron’s sons. I suggest that if (93) were expressed as final coordination, it would either be unacceptable, or it would sound like Aaron was one of Moses’ sons.<sup>56</sup>

Multiple coordination uniquely allows the author to highlight one conjunct against the backdrop of the others. In beginning this section, I said that the choice of which structure to use in referring to Noah’s three sons seems inconsequential. Indeed, arbitrariness is an illusion. This can be seen by looking at the broader context of the initial examples.

- (94) וְאֵלֶּה תּוֹלְדֹת בְּנֵי־נֹחַ שֵׁם חָם וְיִפְתָּח וְיִלְדוּ לָהֶם בְּנִים אַחֲרֵי הַמַּבּוּל:  
 (Gen 10:1)  
*wə-’ēllē tōlādōt bənē nōaḥ šēm ḥām wā-yāpēt*  
 and-these generations.GEN sons.GEN Noah Shem Ham and-Japheth  
*wayyiwwālādū lā-hem bānīm ’aḥar ham-mabbûl*  
 born.WCIPFV.3MP to-3MP sons after ART-flood  
 And these are the generations of the sons of Noah: Shem, Ham, and Japheth.  
 And sons were born to them after the flood.

- (95) וַיְהִי בְּנֵי־נֹחַ הַיֹּצְאִים מִן־הַתֵּבָה שֵׁם חָם וְיִפְתָּח וְהָם הוּא אָבִי כְנַעַן:  
 (Gen 9:18)  
*wayyihyû bənē nōaḥ hay-yōšə’im min hat-tēbâ*  
 be.WCIPFV.3MP sons.GEN Noah ART-go.out.PTCP.MP from ART-ark  
*šēm wə-ḥām wā-yāpēt wə-ḥām hû’ ’ābî kənā’an*  
 Shem and-Ham and-Japheth and-Ham he.NOM father.GEN Canaan  
 The sons of Noah who came out of the ark were Shem and Ham and Japheth.  
 And Ham was the father of Canaan.

Final coordination (94) keeps the three sons on the same level, and the rest of the chapter expounds on each of their genealogies (10:2–31) and ends by calling them “the families of the sons of Noah” (10:32). Multiple coordination (95), on the other hand, allows for highlighting Ham as the father of Canaan, and the rest of the chapter details Ham’s act (9:20–22), the response of the other two (9:23), Canaan’s curse (9:24), and the others’ blessings (9:26–27).

<sup>56</sup> In the other cases where a modifier follows the conjuncts in a final coordination structure, it modifies all of the conjuncts together (Gen 8:19; 9:10; Exod 20:5; Deut 6:1; 29:9, 10).

## 5.6 Summary

This chapter has shown that several facts about Hebrew phrasal coordination result from a coordination analysis wherein the conjuncts function as specifier and complement. First, neither of the conjuncts can move. A movement analysis cannot produce all cases of “split coordination” (§5.2). Instead, the intruding element signals that the conjuncts are not coordinated at the phrase level, but that their separation is a result of clausal ellipsis (§5.3)—whether gapping (§5.3.2), stripping (§5.3.3), or RNR (§5.3.4). In some cases, ellipsis explains the purported cases of conjunct drop and “comitative *waw*.” Otherwise, they should be viewed as examples of verbless clauses.

The initial coordination data of §5.4 do not undermine the complementation analysis either, since the “initial coordinator” is really a parasitic Focus particle. While examples of emphatic coordination usually use  $\text{וְ} \dots \text{וְ}$ , BH appears to be a mixed language system by also using  $\text{וְ} \dots \text{וְ}$  for such constructions, although rarely. Finally, §5.5 showed that the difference between multiple coordination and final coordination is not simply a difference of whether some coordinators are overt or covert. Instead, resulting from the complementation analysis, final-coordination structures have just one coordinator but multiple specifiers. The main result is that final coordination does not allow for sub-constituency, thereby giving it semantic and syntactic balance where all conjuncts are viewed in the same way.

This chapter has addressed the implications of the conjuncts forming a complementation, rather than an adjunction, relationship. The next chapter addresses the BH phrasal data that result from the conjunction being a defective head.

## CHAPTER 6: THE COORDINATOR IS A DEFECTIVE HEAD

### 6.1 Introduction

Chapter three argued that the cross-linguistic structure of coordination is hierarchical (§3.2.1), with the conjuncts functioning as specifier and complement (§3.2.2) and the coordinator functioning as as the head (§3.2.3), which projects the category of the external conjunct (§3.2.4). Chapter four investigated the BH data that result from coordination being a hierarchical structure, and chapter five explored the BH data that result from the conjuncts being in a complementation relationship. This chapter examines the results of the last two aspects, that the coordinator head projects the function of the external conjunct only.

To summarise the relevant argumentation from §3.2.3–4, the coordinator head does not project an independent functional category. Since both the *distribution* of coordinate complexes is covered by simplexes and the *categorial* contrasts of coordinate complexes are covered by simplexes, there is no motivation for proposing &P. Instead, the category feature of the external conjunct is transferred to the coordinator and projected from there to the top of the phrase.

The position adopted here can be summed up as the coordinator being a defective head. This chapter will explore two phenomena of BH phrasal coordination that naturally result from this framework: asymmetric syntax (§6.2) and null coordinators (§6.3).

### 6.2 Asymmetric Syntax

In this section, I distinguish between asymmetric syntax and asymmetric semantics. Asymmetric semantics means that the conjunct order cannot be inverted without also creating

a change in meaning. This is especially common on the clause level, where even an implied temporal progression between conjuncts produces certain semantic asymmetries.

- (1) Susan got married and had a baby.
- (2) Susan had a baby and got married.

Teasing out the different implications for asymmetric semantics in (1)–(2) would be interesting, but the topic of this thesis is mainly about syntax, and the scope of this thesis is limited to phrasal coordination; the semantic asymmetries of clausal coordination, thus, are not considered further here. Specifically, this section investigates coordinations of different syntactic categories (§6.2.1) and scopal issues in phrasal coordination (§6.2.2).

### **6.2.1 Coordination of Different Syntactic Categories**

Since coordination is a hierarchical binary structure, resulting syntactic asymmetries are predicted. Moreover, the coordinator head projects the category of the external conjunct, whereas the internal conjunct is syntactically invisible. One might, therefore, expect that there should be many coordination examples with conjuncts of different syntactic categories. But this is only half of the story. In §3.3.1, I argued that the symmetries within coordination are best captured by Zhang’s (2010) Relativized Parallelism Requirement (RPR), a semantic filter for a coordinate structure already built. The RPR ensures coherence between the conjuncts either in terms of relatedness (i.e. natural coordination) or resemblance in their semantic type. If there is semantic coherence, then a coordinate structure of different syntactic categories can go to Spell-Out.

In asymmetric coordination of different syntactic categories, the category of the external conjunct is decisive. For example, a prefix preposition takes a nominal complement

and never a finite-verb complement.<sup>1</sup> However, when a prefix preposition takes an infinitival complement, the internal conjunct may be a *vayyiqtol* (3) or a verbless clause (4).

- (3) וַיְהִי בְהִרְיָמִי קוֹלִי וְאָקְרָא וַיַּעֲזֹב בְּגָדוֹ אֵצְלִי (Gen 39:18)  
*wayhî ka-hārîm-î qôl-î wā`eqrā` wayya `āzôḇ*  
 be.WCIPFV.3MS as-lift.INF-1CS voice-1CS call.WCIPFV.1CS leave.WCIPFV.3MS  
*bīgād-ô `eṣl-î*  
 garment-3MS beside-1CS  
 “It happened, as I lifted my voice and called, he left his garment beside me.”

- (4) וַיְהִי בְּשָׁמְעֵכֶם אֶת־הַקוֹל מִתּוֹךְ הַחֹשֶׁךְ וְהָהָר בֹּעֵר בְּאֵשׁ וַתִּקְרְבוּן אֵלַי (Deut 5:23)  
*wayhî ka-šom `ā-kem `eṭ haq-qôl mit-tôk*  
 be.WCIPFV.3MS as-hear.INF-2MP ACC ART-voice from-midst.GEN  
*ha-ḥōšek wə-hā-hār bō`ēr bā-`ēš*  
 ART-darkness and-ART-mountain burn.PTCP.MS in.ART-fire  
*wattiqrəḇûn `el-ay*  
 come.near.WCIPFV.2MP to-1CS  
 “It happened, as you heard the voice from the midst of the darkness and the mountain was burning with fire, you came near to me.”

In (3), the infinitive *וְהִרְיָמִי* is conjoined to the following *vayyiqtol* *וְאָקְרָא*. In (4), the infinitive *בְּשָׁמְעֵכֶם* is conjoined to a verbless clause. In both of these examples, a TP is coordinated with a following CP.<sup>2</sup> This is the consistent order of such constituents when they comprise a coordinate complement of a prefix preposition.<sup>3</sup> The tensed CP clause in (3) could not be a simplex complement of the preposition *כִּי*, but it may be the internal conjunct of a coordinate complex. This follows if the internal conjunct is syntactically invisible.

<sup>1</sup> Whenever a finite verb takes a prefix preposition, there is always an intervening complementiser. Preposition *כִּי* is attested with the complementiser *וְ* (Eccl 5:14; 9:12; 12:7), and preposition *כִּי* is attested with the complementiser *וְ* (2 Chron 1:4).

<sup>2</sup> In the analysis of Garrett and DeRouchie (2009:327–330), *וַיְהִי* is a discourse marker that introduces a protasis-apodosis. Under this framework, it seems pretty clear that both the *vayyiqtol* (3) and the verbless clause (4) carry on the protasis of the [*כִּי* + infinitival phrase] constituent. In the analysis of Wilson (2020a), which I prefer, *וַיְהִי* is an isolated BE-verb in the left-periphery that introduces *not-at-issue* content with a temporal adverbial that occurs before the matrix verb, which presents *at-issue* content. Under this framework, the matrix verbs are *וַיַּעֲזֹב* (3) and *וַתִּקְרְבוּן* (4), which each occur after the *etnaḥta*. In either analysis, the CP—the *vayyiqtol* in (3) and the verbless clause in (4)—is coordinated with the TP rather than with the *וַיְהִי*.

<sup>3</sup> Other possible instances in the Pentateuch include Gen 44:30; Exod 34:29.

Usually, a TP is coordinated with another TP.<sup>4</sup> In fact, the symmetric example of (5) matches the initial syntax of (3)–(4), making those asymmetric examples all the more notable.

- (5) וַיְהִי | כִּרְאֵת אֶת־הַנְּזָם וְאֶת־הַצְּמַדִּים עַל־יָדָיו אֶחָתוֹ וּכְשָׁמְעוֹ אֶת־דְּבָרֵי רַבְקָה  
 אֶחָתוֹ לְאִמֶּר (Gen 24:30)  
*wayhî ki-r'ōt 'et han-nezem wə-'et haš-šamīdīm 'al*  
 be.WCIPFV.3MS as-see.INF ACC ART-ring and-ACC ART-bracelets on  
*yadê 'ăḥōt-ô ū-kə-šom 'ô 'et dibrê ribqâ*  
 arms.GEN sister-3MS and-as-hear.INF-3MS ACC words.GEN Rebekah  
*'ăḥōt-ô lē-'mōr*  
 sister-3MS to-say.INF  
 It happened, as (he) saw the ring and the bracelets on the arms of his sister and  
 as he heard the words of Rebekah his sister, saying...

In (5), as well as (3)–(4), the isolated BE-verb וַיְהִי (Wilson 2020a<sup>5</sup>) introduces a clause that begins with a TP headed by כִּ. Unlike (3)–(4), however, the TP כִּרְאֵת in (5) is coordinated with another TP וּכְשָׁמְעוֹ, an expected example of symmetric coordination.

The following examples of asymmetric coordination with a TP are even more striking than (3)–(4), because the TP is conjoined to a previous CP.<sup>6</sup> These are complex examples, so I will take them one at a time. In (6), an infinitive is coordinated with a previous *wayyiqtol*.

- (6) וַיִּצַו יוֹסֵף וַיִּמְלֵאוּ אֶת־כְּלֵיהֶם בָּרֶ וְלָהֲשִׁיב בְּסִפֵּיהֶם אִישׁ אֶל־שִׁקּוֹ וְלָתֵת לָהֶם  
 צֹדָה לְדַרְךָ (Gen 42:25)  
*wayəšaw yōsēp wayamal 'û 'et kalê-hem bār*  
 command.WCIPFV.3MS Joseph fill.WCIPFV.3MP ACC vessels-3MP grain  
*û-lə-hāšîb kaspê-hem 'iš 'el šaqq-ô wə-lā-tēt lā-hem*  
 and-to-return.INF silver-3MP man to sack-3MS and-to-give.INF to-3MP  
*šēdā lad-dārek*  
 provisions to.ART-road  
 Joseph commanded, and they filled their bags with grain and to return each  
 man's silver into his sack and to give them provisions for the road.

<sup>4</sup> See also Gen 1:17–18; 2:15; 19:33, 35; 23:2; 43:18; 45:7; Exod 3:8; 19:12; 23:20; 32:12; 40:32; Lev 20:3; Num 5:22; 8:19; 16:9; Deut 5:29; 6:7; 7:8; 8:6; 10:8, 12; 11:13, 19, 22; 19:9; 21:5; 23:15; 24:8; 26:17, 18–19; 28:12, 13, 63[x2]; 30:16, 20; 31:2.

<sup>5</sup> Wilson (2017, 2019) used to categorise this usage as athetic marker. He now sees it relating more directly to *at-issue* content: “The isolated verb creates the expectation that what follows will need to be accepted as common ground in order for additional moves to be relevant” (Wilson 2020a:330).

<sup>6</sup> See also Exod 35:31–34; Lev 10:9–11.

Example (6) would read more smoothly if the second *wayyiqtol*, “fill,” were an infinitival complement of “command,”<sup>7</sup> but there are no Hebrew manuscripts that reflect this reading. Miller (2003b:138) argues that (6) is a highly reduced example of indirect speech in which Joseph’s command is that they (the servants) fill their (the brothers’) sacks with grain in order to return each man’s silver to his sack and to give them provisions for their journey. Thus, the *waw* on “to return” is likely used to prevent a reading in which the infinitival clause is read as relating to “they filled” rather than “he commanded.”<sup>8</sup>

Another jarring example of a coordinated CP + TP occurs below. At first, (7) would appear to read more smoothly if there were no *waw* attached to the infinitive—as reflected in the Greek, Syriac, and Latin—but there are no Hebrew manuscripts that reflect this reading.

- (7) וַיֹּאמֶר מֹשֶׁה מְלֵאוּ יְדֵיכֶם הַיּוֹם לַיהוָה כִּי אִישׁ בִּבְנֹו וּבְאָחִיו וְלָתַת עֲלֵיכֶם הַיּוֹם  
 בְּרָכָה: (Exod 32:29)  
*wayyōmer mōšē mil’û yed-kem hay-yôm l-yhwh kî*  
 say.WCIPFV.3MS Moses fill.IMP.2MP hand-2MP ART-day to-YHWH because  
*’iš bi-ḥn-ô û-ḥ-’āḥî-w wə-lā-tēt ’ālê-hem hay-yôm*  
 man in-son-3MS and-in-brother-3MS and-to-give.INF on-2MP ART-day  
*bərākā*  
 blessing  
 Moses said, “Fill your hand today for YHWH, because each man was against his son and against his brother, and to place a blessing on you today.”

Nevertheless, similar to (6), the use of *waw* in (7) seems to guard against a reading in which “to place” is related to the verbless clause “because each man was against his son and against his brother.” Rather, the infinitive complement relates to the imperative “Fill your hand.”<sup>9</sup>

There are other examples of conjuncts being of different syntactic categories, and these occur strictly at the phrase level.

<sup>7</sup> This is reflected in the LXX and has precedent in BH in Exod 35:1; Lev 7:36; Num 34:29; Deut 6:1.

<sup>8</sup> I thank my supervisors, Jacobus Naudé and Cynthia Miller-Naudé, for pointing me to resources on (6)–(7) and for helping me understand the syntax of these examples.

<sup>9</sup> This narrative example of asymmetric coordination is similar to a function of *waw* in poetry, where *waw* plays a role in language processing and is used to promote one reading rather than another reading in parallel lines (cf. Miller 2007b).

- (8) N + A  
 מְעַט וְרַעִים הָיוּ יְמֵי שְׁנַיִ חַיִּי (Gen 47:9)  
*mə'at wə-rā'im hāyū yamē šanē hayy-ay*  
 few and-evil.ADJ.MP be.PFV.3CP days.GEN years.GEN life-1CS  
 “Few and evil have been the days of the years of my life.”
- (9) NP + PP  
 וּבְאוּ הַר הָאֱמֹרִי וְאֶל-כָּל-שְׁכֵנָיו (Deut 1:7)  
*û-bō'û har hā-'əmōrî wə-'el kol šəkēnāy-w*  
 and-go.IMP.2MP mountain.GEN ART-Amorite and-to all.GEN neighbors-3MS  
 “Go (to) the mountain of the Amorites and to all of their neighbors.”
- (10) PPs + NP  
 וַיִּתֵּן-לְךָ הָאֱלֹהִים מִטַּל הַשָּׁמַיִם וּמִשְׁמַנֵּי הָאָרֶץ וְרַב דָּגָן וְתִירֹשׁ: (Gen 27:28)  
*wə-yitten lə-kā hā-'ēlōhîm miṭ-tal haš-šāmayim*  
 and-give.JUSS.3MS to-2MS ART-God from-dew.GEN ART-heavens  
*û-mi-šmannê hā-'āreš wə-rōb dāgān wə-tîrōš*  
 and-from-fat.areas-GEN ART-earth and-abundance.GEN grain and-wine  
 “And may God give to you from the dew of heaven and from the fat areas of the earth, and an abundance of grain and wine.”

Example (8) is the one occurrence in the Hebrew Bible where the quantifier noun *מְעַט* is coordinated with an adjective. Example (9) consists of an NP referring to a location and a PP.<sup>10</sup> Example (10) is the most surprising with the NP joined to the coordinate PP complex.

There are two other possible, but unlikely, analyses for (10). First, there might be ellipsis of the bare preposition *מִן* in the final phrase, in which case it is a covert PP (11).<sup>11</sup>

- (11) “And may God give to you from the dew of heaven and from the fat areas of the earth and [~~from~~] a lot of grain and wine.”

However, there are significant asymmetries between the coordinated phrases that make the preposition-ellipsis analysis unlikely. First, there is a merism in the first two PPs—heaven and earth—which sets them distinct from the third phrase. Second, while each of these three phrases is a construct chain, the noun in construct state in the first two phrases is a referring

<sup>10</sup> There are two other [NP + PP] examples (Lev 11:46; Num 15:29), and an example with coordinate NPs where the first has a directional ending and the second does not (Exod 8:20).

<sup>11</sup> For a syntactic analysis of ellipsis of bare prepositions in general, see Miller (2008:106–110). As a slightly different analysis, the last overt preposition could be taking a coordinate NP complex as its complement. However, the rest of this paragraph argues against both of these analyses.

noun and the head of the third is a generic noun “abundance of.” Thus, each of the first two naturally fits as the complement to preposition **מִן** to express a partitive construction, but the third does not. Isaac is not calling on God to give some grain and wine from his abundance, but to actually give an abundance of grain and wine.

A comparison to a similar example can help strengthen the argument that the final NP in (10) is not a covert PP. Like (10), example (12) consists of an NP conjoined to partitive PPs, but unlike (10) there is an object marker on the NP in (12).

- (12) **וְהָרִים מִמֶּנּוּ בְקִמְצוֹ מִסֹּלֶת הַמִּנְחָה וּמִשְׁמֶנֶהָ וְאֵת כָּל־הַלֶּבְנָה אֲשֶׁר עַל־הַמִּנְחָה**  
 (Lev 6:8)  
*wəhērîm mimme-nnû bə-qumš-ô mis-sōleṭ ham-minḥâ*  
 lift.WCPFV.3MS from-3MS in-handful-3MS from-flour-GEN ART-offering  
*û-miš-šamn-āh wə-’ēṭ kol hal-ləḥōnâ ’āšer ‘al ham-minḥâ*  
 and-from-oil-3FS and-ACC all-GEN ART-frankincense that on ART-offering  
 “And from it he shall take up a handful from the flour of the offering and from its oil, and all of the frankincense that is on the offering.”

The object marker precludes the analysis of the NP being a covert PP. Moreover, the universal quantifier **כָּל** in (12) shows even more explicitly than (10) that the NP is distinct from the partitive PPs. Aaron must take some from the flour and oil, but he must take all of the frankincense.

A second possibility of interpreting (10) is as an example of stripping (13). In this case, there is no asymmetric syntax; instead, it would be an example of coordinate CPs.

- (13) “And may God give to you from the dew of heaven and from the fat areas of the earth, [~~and may he give to you~~ a lot of grain and wine].”

Yet, even under the analysis of stripping, (10) would need to be added to the number of examples cited in §5.3.3 where the remnant and its correlate are of different syntactic categories. Thus, it would still be an example of asymmetric syntax. The problem with the stripping analysis for (10), however, is that the coordinate phrase is not split by another

constituent. In §5.3.3, I argued that stripping in BH is licensed by an intervening constituent that signals an intonation break. It is, thus, simpler and more consistent to take (10) as an example of phrasal conjuncts that are of different syntactic categories.

The semantic filter RPR allows these three coordination cases to surface (8)–(10), even though the conjuncts are of different syntactic categories. In (8), the N מְעַט and A רְעִים do not fulfill the relatedness requirement—there is no natural connection between *few* and *evil*. However, they do fulfill the resemblance requirement, both being properties attributed to the days of Jacob’s lifespan. In (9), the NP and the PP fulfill the resemblance requirement, indicating the goal of where the people are to go. For (10), the PPs and NP do not meet the resemblance requirement, with the first two phrases being partitive constructions while the third is not. But they do fulfill the relatedness requirement, as they each express what God will give.

There is another form of syntactic asymmetry, wherein the object marker occurs only before the second of two conjuncts, as (14)–(15) illustrate.

- (14) וַיִּצְרֶה יְהוָה אֱלֹהִים מִן־הָאָדָמָה כָּל־חַיַּת הַשָּׂדֶה וְאֵת כָּל־עוֹף הַשָּׁמַיִם  
 (Gen 2:19)  
*wayyīšer yhwh ’ēlōhîm min hā-’ădāmâ kol ḥayyat*  
 form.WCIPFV.3MS YHWH God from ART-ground all.GEN animal.GEN  
*haš-šādê wə-’ēt kol ’ôp haš-šāmayim*  
 ART-field and-ACC all.GEN bird.GEN ART-heavens  
 YHWH God formed from the ground every animal of the field and every bird of the heavens.

- (15) גָּרַשׁ הָאָמָה הַזֹּאת וְאֶת־בְּנָהּ (Gen 21:10)  
*gārēš hā-’āmâ haz-zō’et wə-’et bən-āh*  
 cast.out.IMP.2MS ART-maidservant ART-this and-ACC son-3MS  
 “Cast out this maidservant and her son!”

In his study on differential object marking, Bekins (2012) presents a framework for explaining the distribution of the object marker in BH. He makes the case that the overt use of

the object marker is primarily influenced by object individuation (the degree to which a referent is viewed as an individual entity rather than a type), which is “measured by identifiability, accessibility, and animacy” (Bekins 2012:140). The lack of the object marker before the first conjunct in both (14) and (15) correlates with an expression that often lacks the object marker: the distributive use of the universal quantifier **כָּל** in (14),<sup>12</sup> and an imperative in (15).<sup>13</sup>

Thus, we have a rationale for why the object marker is missing before the first conjunct in these two examples. Nevertheless, the second conjunct is an equivalent type of expression in both cases and yet it is preceded by the object marker. This is another example of asymmetric coordination. Since the category features of the internal conjunct are syntactically invisible, it is default-marked with accusative case, which is suppressed for the external conjunct due to expression-specific factors.

### 6.2.2 Scope Issues

Since the coordinator is a defective head, it does not project its own syntactic category, but only the category it receives from the external conjunct. As such, it does not create its own syntactic domain, nor is it able to have scope over the domain. Consequently, the coordinator allows other elements to take narrow or wide scope over the conjuncts.

Some have interpreted the difference in scope with coordination as wide scope signaling a collective reading and narrow scope signaling a distributive reading. For example, in looking at Modern Hebrew, Winter (2001) notes that when *et* occurs just once in front of

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<sup>12</sup> The distributive use of the universal quantifier is actually high in individuation (cf. Naudé 2011), but Bekins classifies it as a quasi-indefinite (2012:118–120), which is why it lacks the object marker about 90% of the time, as is the case in Gen 2:19.

<sup>13</sup> The definite NP complement of the imperative in Gen 21:10 is actually high in individuation, but a transitive imperative takes only one overt argument (the object), so “overt case marking would be redundant for the purpose of disambiguation” (Bekins 2012:157).

the coordinate complex, the whole receives a collective reading (16a, 17a). However, when *et* occurs before each conjunct, it receives a distributive reading (16b, 17b).

(16a) *Dan ra'a et ruti ve sara*  
 Dan saw ACC Ruti and Sara  
 Dan saw Ruti and Sara (together).

(16b) *Dan ra'a et ruti ve et sara*  
 Dan saw ACC Ruti and ACC Sara  
 Dan saw Ruti and Sara (separately).

(17a) *Dan hifrid et ruti ve sara*  
 Dan separated ACC Ruti and Sara  
 Dan separated Ruti and Sara.

(17b) ??*Dan hifrid et ruti ve et sara*  
 Dan separated ACC Ruti and ACC Sara  
 Dan separated Ruti and Sara.

The fact that “separated” requires a collective complement explains why (17b) has questionable acceptability.

Zhang (2010:133–134) says there is a comparative use of the English genitive *'s*. Wide scope marks a collective reading (18a), and narrow scope marks a distributive reading (18b).

(18a) John and Harry's departure for Cleveland. [collective]

(18b) John's and Harry's departure for Cleveland. [distributive]

Zhang says that the wide scope of the genitive indicates a joint departure (18a), and the narrow scope indicates that the two departed separately (18b).

However, my intuition is that (18b) could also refer to a joint departure. Some initial support comes from data in Portuguese. Narrow scope is the default option (19a), while wide scope specifically marks a collective reading (19b).

(19a) *Eu conversei com o João e com a Maria*  
 I talked with the João and with the Maria  
 “I talked to João and to Maria.”

- (19b) *Eu conversei com o João e a Maria*  
 I talked with the João and the Maria  
 “I talked to João and Maria.”

Nunes (2004:130) says that both sentences in (19) may be interpreted as a single talking event, but only narrow scope of the preposition (19a) admits a reading with two talking events.<sup>14</sup> This is an example of *privative* markedness (A vs. non-A),<sup>15</sup> in which the unmarked option receives a *general* interpretation (nonsignalisation of A).<sup>16</sup>

Nunes (2004:131) confirms that the narrow-scope example (19a) uniquely allows for a secondary reading by adding a PP to modify each of the talking events, as shown in (20).

- (20a) *Eu conversei com o João sábado e com a Maria domingo*  
 I talked with the João on.Saturday and with the Maria on.Sunday  
 “I talked to João on Saturday and to Maria on Sunday.”

- (20b) \**Eu conversei com o João sábado e a Maria domingo*  
 I talked with the João on.Saturday and the Maria on.Sunday  
 “I talked to João on Saturday and Maria on Sunday.”

I believe the same kind of interpretive distinction holds for the BH data. In the following subsections, we will look at three scope-taking elements in BH: the object marker (§6.2.2.1), prepositions (§6.2.2.2), and negation (§6.2.2.3).

### 6.2.2.1 Wide Scope of the Object Marker

The object marker usually occurs before each conjunct in BH. For example, in looking at examples of just two conjuncts in Genesis, the object marker occurs before both conjuncts

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<sup>14</sup> Yoon and Lee (2005) indicate that a similar phenomenon exists in Korean NPs, where a certain coordination strategy is compatible with both collective and distributive predicates, but the other strategy is compatible only with distributive predicates. This also should be viewed as an example of privative markedness under a general interpretation: signalisation of A vs. a nonsignalisation of A (see footnotes 13 and 14).

<sup>15</sup> There are three types of binary oppositions: privative (A vs. non-A), gradual (mostly A vs. partially A), and equipollent (A vs. B). Privative opposition describes the presence vs. absence of a mark. Gradual opposition describes “various degrees or gradations of the same property” (Korchin 2008:23). And equipollent opposition describes “two opposite but positive features” (Battistella 1990:16).

<sup>16</sup> This is in contrast with a *specific* interpretation in which a signalisation of A contrasts a signalisation of non-A (Battistella 1990:2, Andrews 1990:154, and Korchin 2008:32–34).

forty times,<sup>17</sup> while there are only two occasions where it occurs before the first conjunct only.<sup>18</sup> Example (21) provides the first opportunity to test the hypothesis that wide scope marks a collective reading.

- (21) וַיִּשֶׂם אֶת־הַשְּׂפֹחֹת וְאֶת־יְלִדֶיהֶן רִאשֹׁנָה וְאֶת־לְאָה וְיְלִדֶיהָ אַחֲרָנִים וְאֶת־רָחֵל וְאֶת־יֹסֵף אַחֲרָנִים: (Gen 33:2)
- wayyāsēm 'et haš-šəpāhōt wə-'et yaldē-hen rī'šōnā wə-'et  
 set.WCIPFV.3MS ACC ART-servants and-ACC children-3FP first and-ACC  
 lē'ā w-īlādē-hā 'ahārōnīm wə-'et rāhēl wə-'et yōsēp  
 Leah and-children-3FS afterward and-ACC Rachel and-ACC Joseph  
 'ahārōnīm  
 afterward  
 And he placed the female servants and their children first, and [*he placed*] Leah and her children afterward, and [*he placed*] Rachel and Joseph afterward.

As indicated in §5.3.2, (21) is an example of gapping, wherein there are three clauses of Jacob placing the three different groups one after the other, indicated by the adverbs *first ... afterward ... afterward*. In each of the three clauses, the complement is a coordinate NP complex: the woman and her corresponding child(ren). Furthermore, there is an object marker before each conjunct in NP complex—except for Leah and her children, where there is only one object marker. Rather than taking narrow scope before each conjunct, the object marker takes wide scope over the coordinate NP.

Jacob's favoritism is on display in which woman he places farthest from the imminent danger of Esau approaching: the servant women first, Leah second, and Rachel safest in the back. The narrator also highlights Jacob's favoritism. In one sense Leah is elevated: while Bilhah and Zilpah are unnamed in this verse, Leah and Rachel are named. However, there is a distinction between Leah and Rachel. Both Rachel and Joseph are presented as individuals in the third group, since the object marker has narrow scope over each conjunct. But Leah is

<sup>17</sup> Gen 1:1, 29; 2:24; 3:24; 9:1; 11:5; 12:10; 14:7, 11, 12, 17; 18:19; 19:15; 22:3, 6; 24:30; 25:3; 26:34; 27:17; 30:26, 35; 31:17, 42; 33:5; 34:13; 35:4; 37:14; 40:20; 41:8, 51; 43:14; 45:13, 18; 46:6; 47:6, 11, 19; 49:31[x2]; 50:21.

<sup>18</sup> Gen 14:16; 33:2.

significant only in so far as she is lumped in with her children, so the narrator uses one object marker, which has scope over both conjuncts.

Another clear example of how wide scope marks a collective reading occurs in (22). There are three conjuncts but only two object markers, the first having narrow scope over *Abimelech* alone, and the second having wide scope over *his wife and his maidservants*.

- (22) וַיִּרְפָּא אֱלֹהִים אֶת־אֲבִימֶלֶךְ וְאֶת־אִשְׁתּוֹ וְאֶת־אֲמָהֹתָיו וַיִּלְדוּ: (Gen 20:17)  
 wayyirpā' 'ēlōhîm 'et 'ăbîmeleḵ wə-'et 'išt-ô  
 heal.WCIPFV.3MS God ACC Abimelech and-ACC wife-3MS  
 wə-'amhōt-āyw wayyēlēdû  
 and-maidservants-3MS give.birth.WCIPFV.3MP  
 God healed Abimelech, and his wife and his maidservants, and they gave birth.

Taking the final two conjuncts as a collective indicates that *his wife* is part of the plural reference of those who gave birth in the next clause, not just *his maidservants*.

As noted above, narrow scope of אֶת with two conjuncts in Genesis is twenty times more common than wide scope. Moreover, in looking at coordinate complexes of three or more conjuncts in Genesis, narrow scope occurs twelve times more often than wide scope.<sup>19</sup> Thus, in terms of frequency alone it makes sense that narrow scope is the default option.

Moreover, as the unmarked option, narrow scope can occur with distributive or collective readings. Example (23) illustrates narrow scope that does not mark a distributive reading for the four conjuncts.

- (23) וַיִּשְׁלְחוּ אֶת־רֵבְקָה אֶחָתָם וְאֶת־מִנְקָתָהּ וְאֶת־עַבְדֵּי אַבְרָהָם וְאֶת־אֲנָשָׁיו: (Gen 24:59)  
 wayšalləḥû 'et ribqâ 'ăhōt-ām wə-'et mēniqt-āh  
 send.away.WCIPFV.3MS ACC Rebekah sister-3MP and-ACC wet.nurse-3FS  
 wə-'et 'ēbed 'abrāhām wə-'et 'ānāšāy-w  
 and-ACC servant.GEN Abraham and-ACC men-3MS  
 And they sent away Rebekah their sister and her wet nurse, and the servant of Abraham and his men.

<sup>19</sup> There are twenty-six examples of narrow scope: Gen 1:21, 25; 8:1; 10:11–12, 13–14, 15–18, 26–29; 11:31; 12:5, 20; 14:5–6; 15:19–21; 17:23; 22:21–22, 24; 24:59; 25:2; 32:20, 23; 34:28, 29; 36:5, 6, 14; 46:5; 47:12. Conversely, there are just three examples of wide scope: Gen 19:25; 20:17; 32:8.

In (23), there is an object marker before each of the four conjuncts. Nevertheless, there are clearly two groups presented with the pronominal suffixes, since the second conjunct is bound to the first conjunct and the fourth to the third. Thus, it is better to view narrow scope as the default/unmarked option, since it can occur with a distributive (24) or collective (25) reading.

- (24) כִּי־אִישׁ אִישׁ אֲשֶׁר יִקְלֹל אֶת־אָבִיו וְאֶת־אִמּוֹ מוֹת יוּמָת (Lev 20:9)  
*kī 'iš 'iš 'āšer yaqallēl 'et 'āb-îw wə-'et*  
 because man man that curse.IPFV.3MS ACC father-3MS and-ACC  
*'imm-ô môt yûmāt*  
 mother-3MS die.INF put.to.death.IPFV.3MS  
 “Because each man who curses his father or (lit. *and*) his mother shall surely be put to death.”

- (25) וְאִישׁ אֲשֶׁר יִקַּח אֶת־אִשָּׁה וְאֶת־אִמָּהּ זִמָּה הוּא (Lev 20:14)  
*wə-'iš 'āšer yiqqah 'et 'iššâ wə-'et 'imm-āh zimmâ*  
 and-man that take.IPFV.3MS ACC woman and-ACC mother-3FS lewdness  
*hîw'*  
 it.NOM.FS  
 “And a man who takes a woman and her mother, that is depravity.”

In (24), the repetition in the phrase *אִישׁ אִישׁ* indicates distribution (cf. BHRG §29.3). This construction paired with the context demands that each man who curses *either* his father *or* his mother should be put to death, not simply the person who curses *both* his father and mother.<sup>20</sup> Narrow scope of *אֶת* before each conjunct is consistent with a distributive reading. Example (25) describes a man who takes a woman and her mother (a collective reading) as depravity. There would be no problem with taking either a woman or her mother. Therefore, narrow scope before each conjunct is also consistent with a collective reading.

While narrow scope can occur with both collective and distributive readings, wide scope specifically marks a collective reading (26).

<sup>20</sup> For more on how the *either* reading of the conjuncts in (24) is licensed, see below in §6.2.2.3

- (26) לֹא־רָאוּ אֶת־מוֹסַר יְהוָה אֱלֹהֵיכֶם אֶת־גְּדְלוֹ אֶת־יְדוֹ הַחֲזָקָה וְזַרְעוֹ הַנְּטוּיָהּ:  
 (Deut 11:2)  
 lō' rā'û 'et mûsar yhw̄h 'ēlōhê-kem 'et godl-ô  
 NEG see.PFV.3MP ACC discipline.GEN YHWH God-2MP ACC greatness-3MS  
 'et yād-ô ha-ḥzāqâ û-zarō'-ô han-ṇṭūyâ  
 ACC hand-3MS ART-strong and-arm-3MS ART-stretch.PTCP.PASS.FS  
 “They did not see the discipline of YHWH your God, his greatness, his mighty  
 hand and outstretched arm.”

In (26), the wide scope of אֶת before *his mighty hand and outstretched arm* signals a collective reading.<sup>21</sup> The coordinated NPs form a hendiadys, which refers to the one act of God’s powerful deliverance.<sup>22</sup>

### 6.2.2.2 Wide Scope of Prepositions

For coordinate PPs in Genesis, there are ninety-seven instances of the repeated preposition having narrow scope,<sup>23</sup> and there are only seven instances of wide scope.<sup>24</sup> The standard Hebrew grammars make a comment that the preposition is normally repeated before each complement (e.g. GKC §119hh, IBHS §11.4.2, WHS §238, BHRG §32.1),<sup>25</sup> but Joüon and Muraoka uniquely offer an explanation for the difference: “In some cases the repetition may emphasise individuality, the non-repetition cohesiveness” (JM §132g, n. 1). However, once again, it is better to interpret narrow scope of the preposition as the unmarked option.

As the unmarked option, narrow scope can occur with a distributive reading (27), and also with a collective reading (28).

<sup>21</sup> Other wide-scope examples of the object marker in the Pentateuch include Exod 12:28; 24:12; 33:2; 34:11; 39:40; Num 4:25; 32:35; Deut 2:34; 5:31; 6:2, 17; 28:15; 31:28.

<sup>22</sup> The other NP usage of this phrase also uses wide scope of the object marker (1 Kgs 8:42).

<sup>23</sup> Gen 1:4, 7, 14, 18[x2], 26, 28, 30; 2:20; 3:14, 15, 21; 4:4[x2], 5; 5:29; 6:14, 21; 7:21; 8:17, 20; 9:2[x2], 8, 9–10, 12, 13, 15, 16, 17; 10:12; 13:2, 3, 7, 8, 17; 16:5, 14; 17:2, 7, 8, 10, 11; 19:16, 24, 28; 20:1, 5, 9; 21:12, 23; 22:17; 23:15; 24:53; 25:16; 26:3, 28, 35; 27:16; 28:4, 7; 30:36; 31:4, 28, 33, 44, 48, 49, 50, 51; 32:1, 11, 17, 29; 33:1, 14; 34:11, 18, 24, 30; 35:2, 12; 37:2, 8, 10; 41:37; 43:7; 45:16, 19; 46:31; 47:14, 15, 17; 48:20, 22; 49:26; 50:24.

<sup>24</sup> Gen 1:14; 7:8; 14:2, 9; 30:40; 31:37; 48:5.

<sup>25</sup> Rooker (1990:115–116) reports a tendency in late Biblical Hebrew to drop the repeated prepositions and object markers and only write once what was repeated in early Biblical Hebrew (cf. Polak 2013a).

(27) וַיִּסְפוּ עוֹד שִׂנְא אֹתוֹ עַל־חֲלֹמָתוֹ וְעַל־דְּבָרָיו: (Gen 37:8)  
*wayyôsîpû 'ôd śanō 'ôl-ô 'al ḥālōmōtāy-w wə-'al*  
 add.WCIPFV.3MP again hate-INF ACC-3MS on dreams-3MS and-on  
*dəbārāy-w*  
 words-3MS  
 “And they hated him even more concerning his dream and concerning his words.”

(28) וַיֹּאמֶר אֱלֹהִים אֶל־נֹחַ וְאֶל־בָּנָיו אִתּוֹ (Gen 9:8)  
*wayyō'mer 'ēlōhîm 'el nōaḥ wə-'el bānāy-w 'itt-ô*  
 say.WCIPFV.1CS God to Noah and-to sons-3MS with-3MS  
 And God said to Noah and to his sons with him.

The distributive reading of the conjuncts in (27) is a matter of interpretation. It makes sense that the brothers hated Joseph for having his dreams in the first place, and also for speaking about them. It makes less sense that Joseph’s words were considered part of his dreams. In (28), however, the second conjunct is bound to the first, and the preposition of accompaniment indicates a collective recipient of the one speech act. This interpretation is confirmed in the next verse, when God says, “I will establish my covenant with you (pl) and with your (pl) offspring after you (pl)” (Gen 9:9). Since narrow scope can occur with both distributive (27) and collective (28) readings, it is best to view it as the unmarked option.

Wide scope, on the other hand, does mark a collective reading. This is clear in an example like (29), and even (30) reveals intentionality after some consideration.

(29) מִהַמְצֵאתָ מִכֹּל כְּלֵי־בֵיתְךָ שִׁים כֹּה נָגַד אַחִי וְאַחֵי וַיִּזְכִּיחוּ בֵּין שְׁנֵינוּ: (Gen 31:37)  
*mā māšā' tā mik-kōl kalê bēte-kā śîm kô*  
 what find.PFV.2MS from-all.GEN vessels.GEN house-2MS put-IMP.2MS here  
*neḡed 'aḥa-y wə-'aḥê-kā wə-yōkîḥû bēn*  
 before brothers-1CS and-brothers-2MS and-decide-IPFV.3MP between  
*śanê-nû*  
 two-1CP  
 “What have you found of all the vessels of your house? Place (it) here before my kinsman and your kinsman, that they may decide between the two of us.”

- (30) וְהָיוּ לְאִתּוֹת וְלַמּוֹעֲדִים וְלַיָּמִים וְשָׁנִים: (Gen 1:14)  
*wəhāyū lə-’ōtōt ū-lə-mô ’ādīm ū-lə-yāmim wə-šānīm*  
 be.WCPFV.3CP to-signs and-to-appointed.times and-to-days and-years  
 “And let them be for signs and for appointed times and for days and years.”

In (29), the preposition **לְ** has wide scope over both conjuncts, *my kinsmen and your kinsmen*, which collectively function as the subject of the plural verb in the final clause. In (30), there are four conjuncts with a preposition before the first three only. Thus, there should be three distinct functions for the heavenly lights, with the last two conjuncts sharing one function. I suggest that **לְאִתּוֹת** refers to divine action,<sup>26</sup> **לְמוֹעֲדִים** refers to sacred routine,<sup>27</sup> and the complex **לְיָמִים וְשָׁנִים** refers to secular routine.<sup>28</sup>

Outside of Genesis, the same pattern still holds. Narrow scope of the preposition is the default option, which can occur with a distributive reading (31), and also with a collective reading (32).

- (31) לְמַעַן יִיטֵב לָךְ וּלְבָנֶיךָ אַחֲרַיִךְ עַד-עוֹלָם (Deut 12:28)  
*ləma’an yîṭab lə-kā ū-lə-bānê-kā ’ahărê-kā ’ad ’ōlām*  
 so.that good.IPFV.3MS to-2MS and-to-sons-2MS after-2MS until eternity  
 “... so that it may be well with you and with your children after you forever.”

- (32) מֵעַרְוֵר אֲשֶׁר-עַל-נַחַל אַרְנוֹן וְחֶצְי הַר-הַגִּלְעָד וְעָרָיו נָתַתִּי לְרֵאוּבֵנִי וְלְגָדִי: (Deut 3:12)  
*mē-’ārō ’er ’ăšer ’al naḥal ’arnōn wa-ḥăšî har*  
 from-Aroer that on wadi.GEN Arnon and-half.GEN mountain.GEN  
*hag-gil ’ād wə-’ārāy-w nātattî lā-rū ’ūbēnî wə-lag-gādî*  
 ART-Gilead and-cities-3MS give.PFV.1CS to-Reubenite and-to.ART-Gadite  
 “From Aroer, which is by the Wadi Arnon, and half of the hill-country of Gilead and its cities I have given to the Reubenites and to the Gadites.”

<sup>26</sup> This could refer to an eclipse or the four phases of the moon. Elsewhere in the Pentateuch, the plural form **אוֹתוֹת** almost exclusively refers God’s mighty actions in Egypt (Exod 4:9, 17, 28, 30; 7:3; 10:1, 2; Deut 4:34; 6:22; 7:19; 11:3; 26:8; 29:2; 34:11) and in the wilderness (Num 14:11, 22).

<sup>27</sup> As an alternative interpretation, Baker (1980:135) takes the *waw* before “days and years” to be a *waw explicativum*, which gives a more precise definition of what is meant by “appointed times.” However, the plural form **מוֹעֲדִים** elsewhere in the Pentateuch always refers to the appointed feasts (Lev 23:2, 4, 37, 44; Num 10:10; 15:3; 29:39).

<sup>28</sup> Something very similar to this interpretation of the three-fold function of the lights was first suggested to me by Cynthia Miller-Naudé and Jacobus Naudé in personal communication.

In (31), the distributive reading yields two beneficiaries: you and the generations after you. In (32), the Reubenites and Gadites collectively receive a plot of land, while the half-tribe of Manasseh receives another plot of land (cf. Deut 3:13).

In (33), the wide scope of לְ indicates that the nine and a half tribes collectively receive the land west of the Jordan.<sup>29</sup>

- (33) אֲשֶׁר צִוָּה יְהוָה לְתֵת לְתִשְׁעַת הַמִּטּוֹת וְחֶצִי הַמַּטֵּה (Num 34:13)  
 'ăšer šiwwâ yhw̄h lā-tēl lə-tiš 'at ham-maṭṭōt  
 that command.PFV.3MS YHWH to-give.INF to-nine.GEN ART-tribes  
 wa-ḥăšî ham-maṭṭê  
 and-half.GEN ART-tribe  
 Lit.: “that YHWH commanded to give to the nine tribes and half of the tribe”

There are two possibilities for the syntactic structure of a wide-scope example like (33). Miller (2008:107) notes that most linguistics would consider there to be ellipsis of the prepositional head (34a), while others would argue that the single prepositional head takes a coordinate NP complement (34b).

- (34a) to give [PP to the nine tribes [and PP to half of the tribe]].

- (34b) to give [PP to [NP the nine tribes [and NP half of the tribe]]].

Example (34a) posits an underlying structure of coordinate PPs, while (34b) maintains that both the underlying and surface structure present coordinate NPs.

I believe (34b) is the correct analysis for three reasons. First, it is the simpler analysis. Second, there is no motivation for ellipsis of the bare prepositional head. Conceptually, a preposition can take a coordinate NP complement just as easily as it can take a simplex NP complement. Third, the fact that the wide-scope structure of (34b) lacks a second preposition explains why it lacks a second reading that (34a) might have.

<sup>29</sup> Other wide-scope examples of the preposition in the Pentateuch include Exod 12:43; 15:18; 23:23; 39:1; Lev 16:3; 27:28; Num 6:3; 9:11; 16:25; 27:2; 29:39; Deut 1:1; 2:36; 3:10, 12; 4:48–49; 19:17.

Nunes (2004:130–135) provides a compelling analysis for why a narrow-scope structure uniquely allows for a distributive reading (i.e. two speech events) of the conjuncts (35a). To aid the exposition, the Portuguese sentences from (19) above are discussed in English (35).

(35a) “I talked to João and to Maria.”

(35b) “I talked to João and Maria.”

According to Nunes, the ambiguity in (35a) is the result of two possible convergent derivations. Under the collective reading of (35a), the PPs are merged with the verb in spec VP before *talked* is copied and moved to check the strong V-feature of the light verb. The lower copy is deleted before Spell-Out, as shown in (36).

(36) [<sub>VP</sub> I [<sub>v'</sub> talked<sup>i+v</sup> [<sub>VP</sub> ~~talked<sup>i</sup>~~ [[<sub>PP</sub> to João] [<sub>PP'</sub> and [<sub>PP</sub> to Maria]]]]]]

Thus, the collective reading of the conjuncts in (35a) implies one speech event, which coincides with the one VP, as shown in (36).

Under the distributive reading of (35a), the verb initially joins to the PP *to Maria* before it is copied and merged to the other PP. This forms coordinate VPs, which license two speech events. Once again, *talked* is moved to check the strong V-feature. The lower copies of the verb are then deleted before Spell-Out, as shown in (37).

(37) [<sub>VP</sub> I [<sub>v'</sub> talked<sup>1+v</sup> [[<sub>VP</sub> ~~talked<sup>2</sup>~~ to João] [<sub>VP'</sub> and [<sub>VP</sub> ~~talked<sup>3</sup>~~ to Maria]]]]]]

Through sideward movement of the verb in (37), there is an underlying structure of coordinate VPs, which allows for a distributive reading of the conjuncts with two speaking events.

The wide-scope structure of (35b), however, does not allow for sideward movement of the verb, which is why there is no distributive reading of the conjuncts. Replicating the same derivation of (37) with only one preposition is impossible. The derivation starts out fine with the verb merging with the PP, as shown in (38).

(38) [VP<sup>i</sup> and [VP talked to Maria]]

However, when the verb tries to move sideward to create coordinate VPs, there is no preposition to form the PP verbal complement.

(39) \*[[VP talked<sup>i</sup> João] [VP<sup>i</sup> and [VP talked<sup>i</sup> to Maria]]]

The derivation crashes, because *João* needs a preposition head to check its case, which is shown in (39).

Under this same analysis, the wide-scope structure is able to produce the collective reading. The NPs are joined to the P, which is then merged with the verb in spec VP before *talked* is copied and moved to check the strong V-feature of the light verb. Finally, the lower copy is deleted before Spell-Out, as shown in (40).

(40) [VP I [V<sup>i</sup> talked<sup>i</sup>+V [VP ~~talked<sup>i</sup>~~ [PP to [[NP João] [NP<sup>i</sup> and [NP Maria]]]]]]]

Thus, assuming that there is no preposition ellipsis in the wide-scope structure is critical for accounting for why it allows for the collective reading and blocks the distributive reading.

The fact that wide scope marks a collective reading explains a certain syntactic phenomenon with the preposition **בין**. When it takes a coordinate complex as a complement, the preposition is always repeated—it never takes wide scope over coordination.<sup>30</sup> This is the case, even when the conjuncts come in groups of twos, like in (41).<sup>31</sup>

(41) **וְאִיבָהּ | אֲשֵׁית בֵּינְךָ וּבֵין הָאִשָּׁה וּבֵין זְרַעְךָ וּבֵין זְרַעִי** (Gen 3:15)  
*wə-’ēbā ’āšīt bēynā-kā ū-bēn hā-’iššā*  
 and-enmity put.IPFV.1CS between-2MS and-between ART-woman  
*ū-bēn zar ‘ā-kā ū-bēn zar ‘-āh*  
 and-between seed-2MS and-between seed-3FS  
 “I will put enmity between you and the woman, and between your seed and her seed.”

<sup>30</sup> According to BHRG §39.7, the combination **בין** ... **בין** occurs 128 times, **בין** ל**בין** occurs 30 times, and in three instances the second **בין** is replaced by **ל**. The only situation in which the preposition is not repeated is when it takes a simplex plural NP as a complement.

<sup>31</sup> See also Gen 13:8; Lev 10:10; 11:47.

It is likely an issue of semantics why the preposition never occurs with wide scope over coordination. Since  $\text{בין}$  usually has a locative function indicating a place between two points, these points require a distributive reading rather than a collective reading.

### 6.2.2.3 Wide Scope of Negation

One final scope-taking element is negation. As has been noted by many, *waw* can be translated as “or” (disjunctive coordination) when it occurs in a negated clause.<sup>32</sup>

- (42)  $\text{וּבְלִטְדִּיף לְאֲיָרִים אִישׁ אֶת־יָדוֹ וְאֶת־רַגְלוֹ בְּכָל־אֶרֶץ מִצְרַיִם:}$  (Gen 41:44)  
*û-bil'ādê-kā lō' yārîm 'iš 'et yād-ô wə-'et*  
 and-apart.from-2MS NEG raise.up.IPFV.3MS man ACC hand-3MS and-ACC  
*raġl-ô bə-kol 'ereṣ miṣrāyim*  
 foot-3MS in-all.GEN land.GEN Egypt  
 “Apart from you, a man shall not raise his hand or (lit. *and*) his foot in all the land of Egypt.”

Steiner (2000) believes that the disjunctive use of *waw* is an illusion, and that the sense of “or” is derived from conjunction reduction.<sup>33</sup>

Aligning Steiner’s view with the theory of ellipsis presented in §5.3, (42) would be another example of stripping/RNR (§5.3.4), the analysis of which is provided in (43).

- (43) “Apart from you, a man shall not raise HIS HAND <in all the land of Egypt> [and a man shall not raise HIS FOOT] – in all the land of Egypt.”

Unlike all confirmed examples of stripping, however, there is no constituent intervening between the remnant and the correlate in (42). Thus, it is unclear what—if anything—could motivate the ellipsis (cf. Hoeksema 2017). Moreover, as I will demonstrate below, the complex ellipsis account of (43) is not needed to account for the data.

<sup>32</sup> See especially Steiner (2000:261–263); cf. JM §175a, IBHS §39.2.1b, WHS §433, BHRG §40.23.3.1.

<sup>33</sup> Cf. IBHS §39.2.1b. On conjunction reduction more generally, see Hudson 1973, Rögnvaldsson 1982, and Schein 2017.

Negative coordination is an interesting cross-linguistic phenomenon (cf. Naudé and Rendsburg 2013), because an example like (44) can be described either in terms of conjunction (45a) or disjunction (45b).<sup>34</sup>

(44) We met neither Marvin nor Joan. (Haspelmath 2007:17)

(45a) We didn't meet Marvin, and we didn't meet Joan either.

(45b) We didn't meet either Marvin or Joan.

There seems to be a parallel here between natural language and propositional logic, because the equivalent statements of (45) can be expressed in symbolic logic (46) that is known as one of De Morgan's laws.<sup>35</sup>

(46)  $\neg[P \vee Q] \equiv [\neg P] \wedge [\neg Q]$

It is not surprising then that some languages like ASL (Davidson 2013) and Warlpiri (Bowler 2014) have a single coordinator that can function as disjunction or conjunction—even allowing for ambiguity—depending on the syntactic context.

English tolerates ambiguity when conjunction occurs within the scope of negation. Szabolcsi and Haddican (2004) provide many examples to show that negated conjuncts receive a “not both” reading by default (47), but can be read as “neither” in a topicalized position (48), as subjects (49), or as stereotypical pairs (50).

(47) Mary didn't take hockey and algebra.  $\neg[P \wedge Q]$

(48) Hockey and algebra, Mary didn't take.  $[\neg P] \wedge [\neg Q]$

(49) The president and the janitor didn't sign the petition.  $[\neg P] \wedge [\neg Q]$

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<sup>34</sup> In his typology of coordination, Payne (1985) calls this construction *rejection* to capture its unique status cross-linguistically. Whether certain negative coordination structures are based on a conjunction of negations or on a negation of disjunction is not always clear. For example, Wurmbbrand (2008) proposes that NEG-*nor/noch* constructions like (44) in English and German are best understood as conjunctions, and that *nor/noch* is a syntactic and semantic complex consisting of a coordinator, a Focus particle, and negation.

<sup>35</sup> According to this notation,  $\neg$  is (represents) negation,  $\vee$  is disjunction,  $\equiv$  means *is identical to*, and  $\wedge$  is conjunction.

(50) Mary didn't take math and physics.  $[\neg P] \wedge [\neg Q]$

Building on the original insight of Szabolcsi and Haddican (2004), Gajić (2019) shows that English distinguishes between two readings of the same sentence by different intonation patterns based on whether the coordinator (51a) or the whole coordination (51b) is stressed.

(51a) He didn't visit Columbia and<sub>F</sub> Brazil—just (Columbia/Brazil).  $\neg[P \wedge Q]$

(51b) He didn't visit [Columbia and Brazil]<sub>F</sub>—he visited Peru.  $[\neg P] \wedge [\neg Q]$

Admittedly, the “not both” (51a) and “neither” (51b) readings stand out more when an appropriate context is given.

Crucially, some languages do not allow for stress on conjunctions. Hungarian is one such language that does not allow stress on conjunctions, and Szabolcsi and Haddican (2004) show that as a result negated conjuncts naturally give rise to a “neither” reading, irrespective of the nature of the conjuncts and whether a context is provided. Since *waw* is an enclitic that never receives stress, Hebrew likely patterns similar to Hungarian.

Before providing a full analysis of negative coordination in BH, it is necessary to show that conjuncts pattern like plural nouns in some crucial entailment patterns. Magri (2014) provides the following examples and argumentation. In (52), the plural morphology makes (52a) and (52b) equivalent statements, while (52c) is true only if John bought a single linguistic book.

(52a) John bought linguistic books.

(52b) John bought (at least) two linguistic books.

(52c) John bought a linguistic book.

However, within a downward-entailing environment such as negation,<sup>36</sup> the plural morphology of (53a) now holds the same entailment as the singular indefinite (53c).

(53a) John didn't buy linguistic books (#but he did buy one).

(53b) John didn't buy (at least) two linguistic books (but he did buy one).

(53c) John didn't buy a linguistic book (#but he did buy one).

Only (53b) allows for the purchase of a linguistic book. Under the scope of negation, plural morphology (53a) patterns like its scalar alternative, singular morphology (53c).

As stated above, coordinate NPs pattern like plural nouns. Focused conjuncts (54a) pattern like their scalar alternative, disjuncts (54c), when negated.

(54a) Mary didn't see [Adam and Bill]<sub>F</sub> (#but she did see one of them).

(54b) Mary didn't see both Adam and Bill (but she did see one of them).

(54c) Mary didn't see Adam or Bill (#but she did see one of them).

Negation licenses a scalar alternative of the constituent in Focus, which provides the key for explaining the “neither” reading of Hebrew conjuncts in a negated clause.

To bring it all together, the “neither” reading of negated conjuncts in Hebrew is a result of *waw* not being able to bear stress. As Gajić (2019:440) explains, “The intonation contour [of the “neither” reading] comprises the primary high pitch accent on negation and a secondary one on ... the second member of the coordination.” The negation licenses the scalar alternative of the focused constituent, which is the second conjunct. The conjunction spreads this reading to the other conjunct, which produces the distributive reading of  $[\neg P] \wedge [\neg Q]$  when conjunction occurs under the scope of negation.

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<sup>36</sup> A downward-entailing environment licenses inferences from sets to subsets. For example, *he didn't eat today* entails the more specific statement *he didn't eat breakfast today*. Moreover, these environments do not license inferences from subsets to sets (would be an upward-entailing environment). The subset *he didn't eat breakfast today* does not entail *he didn't eat today*.

Since conjuncts pattern like their scalar alternative (disjuncts) when negated, it makes sense that BH conjunction (ו) and disjunction (או) are in complementary distribution. The following is an instructive minimal pair showing that BH expresses alternatives in a positive clause with disjunction (55) and in a negative clause with conjunction (56).

(55) וַיֹּאמֶר לוֹ אַבְנֵר נָטֵה לְךָ עַל-יְמִינְךָ אִו עַל-שְׂמְאֹלֶיךָ (2 Sam 2:21)  
*wayyō`mer l-ō `abnēr naṭē lə-kā `al yāmīnə-kā `ō*  
 say.WCIPFV.3MS to-3MS Abner turn.IMP.2MS to-2MS on right-2MS or  
*`al śəmō`le-kā*  
 on left-2MS  
 Abner said to him, “Turn aside to your right or to your left.”

(56) וְלֹא-נָטֵה לְלֶכֶת עַל-הַיְמִינִי וְעַל-הַשְּׂמֹאל מֵאַחֲרַי אַבְנֵר: (2 Sam 2:19)  
*wə-lō` nāṭā lā-leket `al hay-yāmīn wə-`al haś-śəmō`l*  
 and-NEG turn.PFV.3MS to-walk.INF on ART-right and-on ART-left  
*mē-`aḥrē `abnēr*  
 from-after Abner  
 He did not turn by going to the right or (lit. *and*) to the left from behind Abner.

This account is much simpler than the Steiner’s (2000) conjunction-reduction analysis. Moreover, it can account for the full range of BH data.

The conjunction-reduction analysis of “disjunctive *waw*” is insufficient to cover all of the BH data. Steiner (2000) says that ellipsis is licensed by negative (56) or conditional (57) operators, but in a necessary attempt to expand the analysis further, he refers to (58) as an example “whose underlying logical structure is a conditional clause” (2000:262).

(57) וּבַת-כַּהֵן כִּי תִהְיֶה אֶלְמָנָה וְגֵרוּשָׁה וְזָרַע אִין לָהּ וְשָׂבָה אֶל-בַּיִת אֲבִיהָ כְּנַעוּרֶיהָ  
 מִלֶּחֶם אֲבִיהָ תֹאכַל (Gen 41:44)  
*û-bat kōhēn kī tihyē `almānā û-ġērūšā*  
 and-daughter.GEN priest if be.IPFV.3FS widow and-expel.PTCP.PASS.FS  
*wə-zera` `ēn l-āh wəśābā `el bêt `ābī-hā*  
 and-seed NEG to-3FS return.WCIPFV.3FS to house.GEN father-3FS  
*kī-nə `ûrē-hā mil-leḥem `ābī-hā tō`kēl*  
 as-youth-3FS from-bread.GEN father-3FS eat.IPFV.3FS  
 “And as for a priest’s daughter, if she is a widow or (lit. *and*) divorced and has no offspring and returns to her father’s house as in her youth, she may eat of her father’s bread.”

- (58) הַנִּגַּע בְּאִישׁ הַזֶּה וּבְאִשְׁתּוֹ מוֹת יוּמָת׃ (Gen 26:11)  
*han-nōgēa' bā-'iš haz-zê û-bə-'iš-tô môt*  
 ART-touch.PTCP.MS in.ART-man ART-this and-in-woman-3MS die.INF  
*yûmāṭ*  
 put.to.death.IPFV.3MS  
 “The one who touches this man or (lit. *and*) his wife will surely be put to death.”

Logic aside, the syntax of (58) is that of a subject-predicate, where the first constituent is comprised of a subject relative clause headed by the complementiser ה (cf. Holmstedt 2016:69–77). I do not see validation for deriving (58) from an underlying conditional clause.

Moreover, the conditional-clause analysis is even more unlikely for (59), which is similar to (58) but the subject is modified by the universal quantifier כל.

- (59) וְכָל־מִנְחָה בְּלוֹלָה־בְּשֶׁמֶן וְחֶרֶבָה לְכָל־בְּנֵי אֶהֱרֹן תִּהְיֶה אִישׁ כְּאָחִיו׃  
 (Lev 7:10)  
*wə-kol minhâ bəlûlâ baš-šemen wa-ḥārēbâ lə-kol*  
 and-all.GEN offering mix.PTCP.PASS.FS in.ART-oil and-dry to-all.GEN  
*bənê 'ahārōn tihyê 'iš kə-'āhî-w*  
 sons.GEN Aaron be.IPFV.3MS man like-brother-3MS  
 “Every grain offering, mixed with oil or (lit. *and*) dry, shall be for all of Aaron’s sons, each one alike.”

The disjunctive use of *waw* is licensed in each of these non-negated clauses, because, as observed by Heim (1984), what a protasis (57),<sup>37</sup> a generic NP (58),<sup>38</sup> and a quantified NP (59)<sup>39</sup> have in common is that they are all limited downward-entailing environments. Thus, the unified analysis for BH is that an element with distributive scope in a downward-entailing environment licenses an alternative reading of the conjuncts.

While the elements in (57)–(59) do not always create a downward-entailing environment, negation does. Regarding the syntax of negation, there are two different kinds of

<sup>37</sup> See also Gen 21:23 (cf. possible example of Gen 14:23).

<sup>38</sup> See also Deut 18:10; 27:15, 16 (cf. possible examples of Gen 19:12; 31:39).

<sup>39</sup> By no means does every quantified NP create a limited downward-entailing environment (for an overview of the semantics of quantifiers, see Winter 2016:99–131), but the equivalent of English *every* does have this function.

negative scope: sentence negation and constituent negation. As established by Snyman and Naudé (2003) and Snyman (2004), and given much validation by Miller-Naudé and Naudé (2017), word order distinguishes between the two kinds of scope. For sentence negation, the negator occurs before the verb and has scope over the whole phrase that follows it. Negation before a nonverbal constituent marks constituent negation, and the negator has scope only over that constituent. All examples of *waw* marking a “neither” reading in the Pentateuch occur in a clause with sentence negation.

When phrasal *waw* occurs after sentence negation, the conjuncts always have a “neither” reading ( $[\neg P] \wedge [\neg Q]$ ), as first presented in (42), copied below.<sup>40</sup>

- (42)    וּבִלְעֲדֵיךָ לֹא-יָרִים אִישׁ אֶת-יָדוֹ וְאֶת-רַגְלוֹ בְּכָל-אֶרֶץ מִצְרַיִם:    (Gen 41:44)  
*û-bil'ādê-kā                      lō'    yārîm                      'iš    'et    yād-ô    wə-'et*  
 and-apart.from-2MS NEG raise.up.IPFV.3MS man ACC hand-3MS and-ACC  
*raġl-ô    bə-kol    'ereṣ    miṣrāyim*  
 foot-3MS in-all.GEN land.GEN Egypt  
 “Apart from you, a man shall not raise his hand or (lit. *and*) his foot in all the land of Egypt.”

However, when phrasal *waw* occurs before sentence negation, a result of Topic-fronting, the conjuncts usually still have a “neither” reading (60),<sup>41</sup> but they may take a “not both” reading (61)<sup>42</sup> as demanded by context or by certain syntactic features.

- (60)    וְעֲרֹת אֲחֹת אִמְךָ וְאֲחֹת אָבִיךָ לֹא תִגְלֶה    (Lev 20:19)  
*wə-'erwat                      'āḥôt                      'immə-kā    wa-'āḥôt                      'ābî-kā    lō'*  
 nakedness.GEN sister.GEN mother-2MS and-sister.GEN father-2MS NEG  
*təġallê*  
 uncover.IPFV.2MS  
 “The nakedness of your mother’s sister or (lit. *and*) your father’s sister you shall not uncover.”

<sup>40</sup> See also Gen 19:33, 35; 24:27; 30:33; Exod 20:4, 17; 23:26; 30:9; 34:10; Lev 25:36; Num 20:17[x2]; 21:22; 22:26; Deut 18:10; 19:15; 21:18; 23:2, 4, 19; 24:14; 32:36.

<sup>41</sup> See also Exod 12:45; 21:10; 22:21, 28; 23:7; 34:3; 36:6; Lev 2:11; 3:17; 7:23, 26; 10:9; 11:4; 18:7, 17; 21:11; 22:10, 24; 23:14; 26:1; Num 6:3; 30:13.

<sup>42</sup> See also Lev 22:28 (cf. possible example of Lev 21:7).

- (61) עֲרוֹת אִשָּׁה וּבִתָּהּ לֹא תִגְלֶה (Lev 18:17)  
 ‘erwat ’iššā û-bitt-āh lō’ tǝḡallê  
 nakedness.GEN woman and-daughter-3FS NEG uncover.IPFV.2MS  
 “The nakedness of a woman and her daughter you shall not uncover.”

In both of these examples, *nakedness* is in construct state and is followed by a coordinate NP in absolute state, all of which precedes sentence negation. The default “neither” reading holds in (60), as sexual relations are forbidden with one’s aunt, whether on the mother or father’s side. In (61), however, conjunct binding (e.g. *a woman<sub>i</sub> and her<sub>i</sub> daughter*) forces the “not both” reading. Sexual relations with a woman are not forbidden *per se*, but it is forbidden to take a woman and her daughter together.

The fact that Topic-fronting in (61) allows one reading of negated coordination to override the default reading is akin to the English data of (48)–(49), copied below.

- (48) Mary didn’t take hockey and algebra.  $\neg[P \wedge Q]$   
 (49) Hockey and algebra, Mary didn’t take.  $[\neg P] \wedge [\neg Q]$

Negated conjunction expresses the “not both” reading in English by default (48), while it expresses the “neither” reading in Hebrew by default (60). But in both English (49) and Hebrew (61), the default reading can be overridden in Topic/Focus fronting.

### 6.2.3 Summary

This section has analysed two different forms of asymmetric syntax that directly result from the coordinator being a defective head: conjuncts may belong to different syntactic categories (§6.2.1) and other elements may take wide or narrow scope over the conjuncts (§6.2.2).

It is natural that there should be coordination examples with conjuncts of different semantic categories, since coordination is a hierarchical binary structure, wherein the category of the external conjunct alone projects to the top of the phrase while the internal conjunct is syntactically invisible. What is surprising, then, is that there are only a few dozen examples of

asymmetric phrasal syntax in the Pentateuch. The RPR filters out many other coordinate structures that could have been built, requiring the conjuncts to cohere either in terms of relatedness or resemblance. It is not syntax but a semantic filter that is the driving force of limiting asymmetric coordination. Moreover, this semantic filter is more stringent at the phrase level than the clause level. It is easier to process semantic asymmetry at the clause level between two statements than at the phrase level within one statement.

Asymmetric syntax is also at work with scopal properties of the object marker (§6.2.2.1), prepositions (§6.2.2.2), and negation (§6.2.2.3). Since the coordinator *waw* is a defective head, it does not create its own semantic domain, nor is it able to have scope over the domain. Consequently, the coordinator allows other elements to take narrow or wide scope over the conjuncts. The default position for the object marker or preposition is to take narrow scope over each conjunct, which can produce a distributive reading or a collective reading of the conjuncts. When the object marker or preposition takes wide scope over coordination, however, it specifically marks a collective reading.

Negation should be viewed with a comparable analysis. Negation creates a downward-entailing environment—similar to a protasis, a generic NP, and a quantified NP—that licenses the scalar alternative of the second conjunct, which receives prosodic stress. The conjunction spreads this interpretation to the other conjunct, which produces the distributive “neither” reading ( $[\neg P] \wedge [\neg Q]$ ) of the conjuncts. This default reading of negated coordination in BH can be overridden by a “not both” reading ( $\neg[P \wedge Q]$ ) under Topic/Focus fronting.

### **6.3 Null Coordination**

It is common to assume that coordination may occur in BH without an overt use of *waw* (e.g. JM §177, Miller 2007b, Holmstedt and Screnock 2015, and DeRouchie forthcoming). This

assumption is not wrong, but it may be imprecise in the minds of some Hebraists, because one could think of final coordination as an example of null coordination (Andersen and Forbes 2012:57). For purposes of the following discussion, however, *null coordination* will be used to describe examples of coordination in which at least one of the coordinators is left null-expressed. Such a coordinator can be referred to as a *covert coordinator* or a *null coordinator*.

Under this analysis, final coordination is not an example of null coordination. According to §5.5, *final coordination* refers to a structure in which there are more than two conjuncts but only one coordinator, which occurs before the final conjunct. There are no null coordinators. Instead, the multiple conjuncts before the one coordinator are multiple specifiers that are iterated into the structure. As a result, all of the conjuncts have either a distributive or a collective reading—there is no sub-constituency within final coordination.

There are, in fact, only two types of coordination structure: final coordination and multiple coordination. According to §5.5, *multiple coordination* refers to a structure in which there are more than two conjuncts and there is a coordinator separating each of the conjuncts. Null coordination is a surface-level manifestation of multiple coordination, different only in the sense of leaving at least one of the coordinators null-expressed.

In this section, we will investigate the motivation for positing null coordinators (indicated in the following examples by the null sign  $\emptyset$ ), and we will propose two kinds of null coordination: overt-and-null coordination (§6.3.1) and completely-null coordination (§6.3.2). We will also consider the functions of these sub-varieties of multiple coordination.

### **6.3.1 Overt-and-Null Coordination**

In this section, I refer to structures that have multiple coordinators—but not an overt coordinator between each conjunct—as displaying overt-and-null coordination. Holmstedt

and Screnock (2015:103–105) offer an intriguing interpretation for this phenomenon in their analysis of NPs in the War Scroll. They posit two different coordination structures: a *waw* between each conjunct or before the last conjunct only (structures I call respectively *multiple coordination* and *final coordination* in §5.5). They claim that the combination of these structures produces overt-and-null coordination (62). Final coordination forms the outer structure (the relationship between square brackets) and multiple coordination forms the inner structure (the conjuncts within brackets).

- (62) [שְׁלוֹם וּבְרָכָה] [כְּבוֹד וּשְׂמִיחָה] [וְאוֹרֵךְ יָמִים] (1QM 1:9)  
*l-šlwm w-brkh kbwd w-šmḥh w-ʾwrk ymym*  
 for-peace and-blessing glory and-gladness and-length.GEN days  
 for [peace and blessing] [glory and gladness] [and long life]

The main upside of their analysis is that it does not require proposing a third structure. Rather, it is a combination of two well-motivated structures, and the null coordination functions “to indicate the break between the larger members” (Holmstedt and Screnock 2015:104).<sup>43</sup>

Their analysis does fit with some BH data. For example, the pattern of overt coordinators in (63) is identical to that of (62), as shown in (64).<sup>44</sup>

- (63) בָּנָיו וּבְנֵי בָנָיו אֶתָּוּ בְּנִתָּיו וּבְנֹת בָּנָיו וְכָל-זָרְעוֹ הֵבִיא אִתָּוּ מִצְרַיִם:  
 (Gen 46:7)  
*bānāy-w ū-bənê bānāy-w ʾitt-ô bənōtāy-w*  
 sons-3MS and-sons.GEN sons-3MS with-3MS daughters-3MS  
*ū-bənōt and-daughters.GEN sons-3MS and-all.GEN seed-3MS bring.PFV.3MS with-3MS*  
*miṣrāyem-ā*  
 Egypt-LOC  
 [His sons and the sons of his sons with him], Ø [his daughters and the daughters of his sons], and [all of his seed] he brought with him to Egypt.

<sup>43</sup> I do not assume that Holmstedt and Screnock (2017) understand the structure with a *waw* “only before the very last coordinated constituent” to represent a multiple-spec structure the same way I understand multiple coordination. If they do, however, I quibble with them saying that (62) displays null coordination; for, if multiple coordination forms the outer structure, the “break” is not indicated by a null coordinator but by an iterated specifier, and a multiple-spec structure does not allow for a prosodic break according to my analysis.

<sup>44</sup> See also Exod 24:1, 9; 35:17.

(64) [NP & NP] Ø [NP & NP] & [NP] (Gen 46:7)

The outer structure of bracketed NPs in (63) does look like it could be joined with final coordination, since there is no *waw* between the first two pairs of bracketed NPs.

But the analysis cannot account for all of the BH data. Example (65) also has embedded coordinate phrases, but unlike (63), there is not a single *waw* between any of the bracketed pairs of conjuncts, which the simplified structure of (66) makes clear.

(65) והוֹרִידוּ לְאִישׁ מִנְחָה מֵעֵט צְרִי וּמֵעֵט דְּבַשׁ נְכֹאֵת וְלֹט בְּטָנִים וּשְׁקָדִים:  
 (Gen 43:11)  
*wəhōrîdû lā-’iš minhâ mə’at šōrî û-mə’at dəbaš*  
 lower.IMP.2MP to.ART-man gift little.GEN balsam and-little.GEN honey  
*nəḳō’î wā-lōt boṭnîm û-šəqēdîm*  
 resin and-myrrh pistachios and-almonds  
 “And bring down to the man a present: [a little balsam and a little honey], Ø [resin and myrrh], Ø [pistachios and almonds].”

(66) [NP & NP] Ø [N & N] Ø [N & N] (Gen 43:11)

Without a *waw* between any of the three bracketed pairs of conjuncts, final coordination cannot form the outer structure (the relationship between square brackets).

The proposal of Holmstedt and Screnock (2015) cannot account for all of the empirical data, but it is also needlessly complex. Instead of proposing that overt-and-null coordination results from the combination of two coordination structures, it is far simpler to assume that it is actually the same syntactic structure as multiple coordination, and that the only difference is that at least one of the coordinators has been left null-expressed. We have seen that multiple coordination allows for sub-constituency (§4.3.3.2), but final coordination does not (§5.5). A null coordinator, then, signals sub-constituency within a multiple-

coordination structure by creating a prosodic break between conjuncts. The result is what I call here *overt-and-null coordination*, which is another example of privative markedness.<sup>45</sup>

Overt-and-null coordination (68)<sup>46</sup> has the same underlying structure as multiple coordination (67).<sup>47</sup> In these two examples, embedded coordination comes in semantic pairs.

(67) וַיִּתֵּן לוֹ צֹאן וּבְקָר וּבְכֶסֶף וְזָהָב וְעַבְדָּם וּשְׂפָחָת וּגְמָלִים וְחֲמָרִים: (Gen 24:35)  
*wayyitten l-ô šō`n û-bāqār wə-kesep wə-zāhāb*  
 give.WCIPFV.3MS to-3MS flock and-cattle and-silver and-gold  
*wa-`ābādīm û-šāpāhōt û-ḡamallīm wa-ḥāmōrīm*  
 and-male.slaves and-female.slaves and-camels and-donkeys  
 He gave him [flocks and herds] and [silver and gold] and [male slaves and female slaves] and [camels and donkeys].

(68) עֲזִים מְאֹתִים וְתִישִׁים עֲשָׂרִים רְחֵלִים מְאֹתִים וְאֵילִים עֲשָׂרִים: גְּמָלִים מִיְנִיקוֹת  
 וּבְנֵיהֶם שְׁלֹשִׁים פָּרוֹת אַרְבָּעִים וּפְרִים עֲשָׂרָה אֶתְנַת עֲשָׂרִים וְעַרְסִים עֲשָׂרָה:  
 (Gen 32:15–16)  
*‘izzīm mā`tayim û-tayāšīm ‘esrīm rəḥēlīm mā`tayim wə-`ēlīm*  
 female.goats 200 and-male.goats 20 ewes 200 and-rams  
*‘esrīm ḡamallīm mēniqōt û-ḥanē-hem šalōšīm pārōt `arbā`im*  
 20 camels nurse.PTCP.FP and-sons-3MP 30 cows 40  
*û-pārīm `āsārā `ātonōt ‘esrīm wa-`yārīm `āsārā*  
 and-bulls 10 female.donkeys 20 and-male.donkeys 10  
 “[Two hundred female goats and twenty male goats], Ø [two hundred ewes and twenty rams], Ø [thirty nursing camels and their calves], Ø [forty cows and ten bulls], Ø [twenty female donkeys and ten male donkeys].”

The difference is that the sub-constituency is unmarked in multiple coordination (67), but it is formally marked within overt-and-null coordination (68) with a null coordinator separating each of the semantic pairs.<sup>48</sup> Thus, overt-and-null coordination is not a unique structure *per*

<sup>45</sup> Section 6.2.2 showed that narrow scope of the object marker or preposition is unmarked with respect to a distributive or a collective reading of the coordinate complex. When either takes wide scope over coordination, however, it signals a collective reading. Here, multiple coordination, wherein all the coordinators are overt, is unmarked with respect to a flat or embedded grouping of the conjunct. Null coordinators, however, signal sub-constituency within the structure.

<sup>46</sup> See also Gen 31:27; 43:11; 49:3; Exod 6:23; 10:9; 14:17; 20:24; 28:34; 34:6; 35:16, 25, 35; 39:26, 39; Lev 23:37; Num 3:2; 6:7; 26:60; Deut 6:11; 10:14; 26:13; 28:18; 29:16, 22.

<sup>47</sup> See also Gen 3:15; 8:22; 13:8; 20:14; 24:59; 43:11; Exod 30:26–28; 31:7–11; Lev 8:11; 10:10; 11:47; Num 7:1; Deut 14:26; 30:15.

<sup>48</sup> Similarly, a null coordinator separates each of the semantic pairs of coordinated NPs in Gen 49:3 and the coordinated PPs in Gen 31:27.

*se*; rather, it is a marked version of multiple coordination that signals sub-constituency by leaving at least one of the coordinators null-expressed.

Sub-constituency goes beyond semantic pairs. Example (69) is a list of five kings, but the first two (Sodom and Gomorrah) are separated from the rest by use of a null coordinator. Thus, the first two kings form an embedded list, while the second three kings form another.

- (69) עָשׂוּ מִלְחָמָה אֶת־בְּרֵעַ מֶלֶךְ סֹדֶם וְאֶת־בְּרֵשֶׁת מֶלֶךְ עֲמֹרָה שְׁנָאָב | מֶלֶךְ אֲדָמָה  
 וְשֵׁמְאֵבֶר מֶלֶךְ צְבִיִּים וּמֶלֶךְ בְּלַע הַיֶּזְעֵר: (Gen 14:2)  
 ‘āśû milhāmâ ‘et bera‘ melek sādôm wə-‘et birša‘  
 do.PFV.3MP battle with Bera king.GEN Sodom and-with Birsha  
 melek ‘āmōrâ šin‘āb melek ‘admâ wə-šem‘ēber melek  
 king.GEN Gomorrah Shinab king.GEN Admah and-Shemeber king.GEN  
 šəbōyîm ū-melek bela‘ hî’ šō‘ar  
 Zeboiim and-king.GEN Bela it.NOM.FS Zoar  
 They made war [with Bera king of Sodom and with Birsha king of Gomorrah],  
 Ø [Shinab king of Admah and Shemeber king of Zeboiim and the king of Bela  
 (that is, Zoar)].

Within the full list, the kings of Sodom and Gomorrah are also unique in being marked with the preposition **אֶת**. These two features—preposition-marking and a null coordinator after the second conjunct—highlight the prominence of these two particular kings in the narrative. When their coalition is defeated, the narrator mentions only the kings of Sodom and Gomorrah fleeing (Gen 14:10) and being taken captive (14:11). Lot and his possessions are also taken, because he was residing in Sodom (14:12), which foreshadows another time when disaster will come upon Lot because of his association with Sodom (18:22–19:38)

Another example of sub-constituency occurs in (70), which consists of a list of blessings divided into three groups by null coordinators: a fruitful yield, a new harvest, and an increasing livestock.

- (70) וַיְבָרֵךְ פְּרִי־בֶטֶןךָ וּפְרִי־אֲדָמָתְךָ דְגָנְךָ וְתִירְשֶׁךָ וְיִצְהָרְךָ שְׂגַר־אֲלֹפִיֶיךָ וְעֵשְׂתָתְךָ וְצִאֲנֶיךָ (Deut 7:13)  
*ûbēraḵ pāri biṭnā-kā û-pāri 'admāte-kā daḡānā-kā*  
 bless.WCPFV.3MS fruit.GEN belly-2MS and-fruit.GEN ground-2MS grain-2MS  
*wə-tīrōšā-kā wə-yiṣhāre-kā šāḡar 'ālāpē-kā wə-'aštārōt šō'ne-kā*  
 and-wine-2MS and-oil-2MS calf.GEN herd-2MS and-lamb.GEN flock-2MS  
 “He will bless [the fruit of your womb and the fruit of your ground], Ø [your new grain and wine and oil], Ø [the calving of your herd and the lambing of your flock].”

Once again, overt-and-null coordination is a multiple-coordination structure at an underlying level. In these cases, a null coordinator marks the left edge of a sub-constituent within the larger coordination structure.<sup>49</sup> Context and semantics determines the significance of why certain conjuncts are grouped together.

Sub-constituency extends even into lists of names. One clear example is (71), where Aaron’s four sons are introduced as pairs.

- (71) וַתֵּלֶד לוֹ אֶת־נָדָב וְאֶת־אֲבִיהוּא אֶת־אֶלְעָזָר וְאֶת־יִתְמָר׃ (Exod 6:23)  
*wattēled l-ô 'et nādāb wə-'et 'ābihū' 'et 'el'āzār*  
 birth.WCIPFV.3FS to-3MS ACC Nadab and-ACC Abihu ACC Eleazar  
*wə-'et 'itāmār*  
 and-ACC Ithamar  
 She bore him [Nadab and Abihu], Ø [Eleazar and Ithamar].

In fact, Aaron’s sons are always presented in pairs when listed together (Exod 28:1; Num 3:2; 26:60; 1 Chron 5:29; 24:1). The reason, of course, is that the older two die when they offer up “strange fire” (Lev 10:1–2), and the remaining younger two sons carry on the priestly work (10:12–15), as summarised in 1 Chron 24:2.

There is another example of sub-constituency within a list of names in (72), which records Jacob’s eleven sons that travelled with him to Egypt. Three null coordinators separate this list into four embedded structures. Verse two is a final-coordination structure of Leah’s first four sons, which are born before involving the maidservants. Verse three also presents

<sup>49</sup> See also Gen 32:6; Exod 20:10; 24:1, 9; 25:31; 28:1, 8, 15; 37:17; 39:1, 5, 8; Num 31:50; Deut 12:11; 28:4, 51.

final coordination, which surprisingly joins Benjamin to Leah's two other sons. The null coordinator in verse four formally separates Bilhah's sons from those of Zilpah.

- (72) רְאוּבֵן שִׁמְעוֹן לֵוִי וְיְהוּדָה: יִשָּׂשכָר זְבֻלֹן וּבְנֵימִן: גָּד וְאַשֶׁר:  
 (Exod 1:2–4)  
*rə'ûḇēn šim'ôn lēwī w-îhûdâ yiśśākār zəḇûlûn û-ḥanayāmîn dān*  
 Reuben Simeon Levi and-Judah Issachar Zebulun and-Benjamin Dan  
*wə-naḫtālî gād wə-'āšēr*  
 and-Naphtali Gad and-Asher  
 [Reuben, Simeon, Levi, and Judah,] Ø [Issachar, Zebulun, and Benjamin], Ø  
 [Dan and Naphtali], Ø [Gad and Asher].

Once again, a null coordinator marks sub-constituency, but the significance of the groupings of children would be unknown if not for the broader narrative.<sup>50</sup>

### 6.3.2 Completely-Null Coordination

There is another marked variation of multiple coordination. This variant leaves all of the coordinators null-expressed, which I call *completely-null coordination*. This construction most often occurs in lists of people<sup>51</sup> (73) or sacrifices<sup>52</sup> (74).

- (73) וְאֵלֶּה בְּנֵי רְעוּאֵל בֶּן-עֵשָׂו אֱלֹוֹף נַחַת אֱלֹוֹף יֶרֶח אֱלֹוֹף שָׁמָּה אֱלֹוֹף מִצָּה  
 (Gen 36:17)  
*wə-'ēllē bənē rə'û'el ben 'ēsāw 'allûp naḫat 'allûp*  
 and-these sons.GEN Reuel son.GEN Esau chief.GEN Nahath chief.GEN  
*zeraḥ 'allûp šammâ 'allûp mizzâ*  
 Zerah chief.GEN Shammah chief.GEN Mizzah  
 And these are the children of Reuel, the son of Esau: the chief of Nahath, Ø the chief of Zerah, Ø the chief of Shammah, Ø the chief of Mizzah.

<sup>50</sup> There are many genealogical lists of otherwise unknown people in the Pentateuch. When these lists exhibit overt-and-null coordination, I assume the decision is intentional, although we cannot determine the precise significance today (cf. Gen 10:4; 25:15; 36:11, 13, 23; 46:16, 21; Exod 6:14; Num 3:19; 26:33; 27:1; 36:11).

<sup>51</sup> See also Gen 36:10, 15–16, 18, 29–30, 40–43; Num 26:12–13, 15–17, 20, 21, 23–24, 26, 35, 38–39, 44, 45, 48–49, 57, 58.

<sup>52</sup> See also Num 7:13–16, 19–22, 23, 25–28, 29, 31–34, 35, 37–40, 41, 43–46, 47, 49–52, 53, 55–58, 59, 61–64, 65, 67–70, 71, 73–76, 77, 79–82, 83, 84, 87, 88; 28:27; 29:2, 8, 13, 17, 20, 23, 26, 29, 32, 36.

- (74) וְלִזְבַּח הַשְּׁלָמִים בְּקָר שְׁנַיִם אֵילִם הַמִּשָּׁה עֲתוּדִים הַמִּשָּׁה כְּבָשִׂים בְּנֵי-שָׁנָה  
 הַמִּשָּׁה (Num 7:17)  
*û-lə-zəḇaḥ haš-šəlāmîm bāqār šənayim 'ēlîm ḥāmiššā 'attûdîm*  
 and-to-sacrifice.GEN ART-peace cattle two rams five goats  
*ḥāmiššā kəbāšîm banê šānâ ḥāmiššā*  
 five sheep sons.GEN year five  
 And for the sacrifice of the peace offerings: two oxen, Ø five rams, Ø five goats, Ø five one-year-old sheep.

Nothing about the items in these two lists calls for sub-constituency, and here we get an insight into the function of completely-null coordination. While multiple coordination is unmarked with regard to sub-constituency, the two variants are marked. Overt-and-null coordination is marked for sub-constituency, and completely-null coordination is marked for disallowing any sub-constituency.

Completely-null coordination shows a surprisingly flexible distribution within the Pentateuch. It occurs most frequently with NPs, as demonstrated above in (73)–(74), but it can also occur with PPs (75) and within adjectival modification (76).

- (75) עַל-כָּל-דְּבַר-פְּשָׁע עַל-שׂוֹר עַל-חֲמוֹר עַל-שֵׁה עַל-שְׁלֵמָה עַל-כָּל-אֲבֵדָה  
 (Exod 22:8)  
*'al kol dəḇar peša' 'al šôr 'al ḥāmôr 'al sé 'al šalmâ*  
 on all.GEN word.GEN offense on ox on donkey on lamb on cloak  
*'al kol 'āḇēdâ*  
 on all.GEN lost.thing  
 “And concerning every reported offense: concerning an ox, Ø concerning a donkey, Ø concerning a lamb, Ø concerning a cloak, Ø concerning anything lost...”

- (76) וְהִנֵּה שִׁבַע שִׁבְלִים צְנֻמוֹת דְּקוֹת שְׂדֵפוֹת קִדִּים צְמֻחוֹת אַחֲרֵיהֶם:  
 (Gen 41:23)  
*wə-hinnê šəḇa' šibbōlîm šənūmôt daqqôt šəḏūpôt qādîm*  
 and-behold seven ears.of.corn hard thin scorch.PASS.PTCP.FP east  
*šōmāḥôt 'ahărê-hem*  
 sprout.PTCP.FP after-3MP  
 “And behold seven ears (that were) hard, Ø thin, Ø scorched by the east wind were sprouting up after them.”

Example (75) presents a list of PPs that explicate a number of options of possible offenses, so the usage of null coordination may not be very surprising, but the adjectival modification of

(76) hardly resembles a list. What seems more distinct about the usage is not that completely-null coordination occurs in lists *per se*, but that it marks a list (75)—or any kind of coordinate phrase for that matter (76)—that does not allow for any sub-constituent groups.

Although completely-null coordination is the marked alternative of multiple coordination, and is parallel to overt-and-null coordination, the two structures have an asymmetric distribution. While overt-and-null coordination requires a list of four or more conjuncts, example (77) demonstrates that completely-null coordination may occur with just two conjuncts.<sup>53</sup>

- (77) כִּן־תַּעֲשֶׂה לְכַרְמֶךָ לְזֵיתֶךָ: (Exod 23:11)  
*kēn ta'ăsé lə-karmə-kā lə-zēte-kā*  
 thus do.IPFV.2MS to-vinyard-2MS to-olive-2MS  
 “Thus you shall do for your vineyard, Ø for your olive orchard.”

A pair of contiguous PPs usually stand in an appositional relationship, wherein the second PP modifies the first, but the PPs in (77) must be interpreted as referring to distinct entities. This produces a surface-level ambiguity between apposition and certain examples of coordination, which will be discussed in more detail in the next chapter.

As one final point, it is interesting to note that (78) shows that null coordinators can express the “neither” reading of negative coordination.

- (78) לֹא־תִשָּׂא לְאָחִיךָ נֶשֶׁךְ בְּסוֹף נֶשֶׁךְ אֶכֶל נְשֶׂךְ כָּל־דָּבָר אֲשֶׁר יִשָּׂא: (Deut 23:20)  
*lō' taššik lə-'āhī-kā nešek kesep̄ nešek*  
 NEG lend.interest.IPFV.2MS to-brother-2MS interest.GEN silver interest.GEN  
*'ōkel nešek kol dābār 'ăšer yiššāk*  
 food interest.GEN all.GEN thing that take.interest.IPFV.3MS  
 “Do not lend on interest to your brother, interest in money, Ø interest in food, Ø interest in anything that may be taken as interest.”

<sup>53</sup> See also Gen 1:26; 10:32; 25:13; 31:29; Exod 22:29. This observation does cause some tension for my thesis that completely-null coordination marks a structure that disallows sub-constituency, because there needs to be at least three conjuncts to allow for any sub-constituency. Or perhaps I have wrongly included these data in this section, and completely-null coordination, as a marked structure, simply refers to structures of three or more conjuncts.

This datum is significant, because Winter (2000) has said that there are no languages that express disjunction with a zero strategy. Example (78) does not contradict his statement but shows the unique status of negative coordination. As shown in §6.2.2.3, languages can express the “neither” reading through conjunction or disjunction. Biblical Hebrew expresses it through conjunction, so it is not surprising that the null conjunctions can be null-expressed in negative coordination.

### 6.3.3 Summary

This section began by defining null coordination in terms of a structure with at least one null coordinator. Since final coordination does not use null coordinators, it is not an example of null coordination, but a multiple-coordination structure can have null coordinators. Multiple coordination, which uses an overt *waw* between each conjunct, is unmarked with respect to sub-constituency. There are two marked variations of multiple coordination. One variation is overt-and-null coordination (§6.3.1), which employs multiple coordinators but not between each conjunct. The null coordinator marks the left edge of a sub-constituent structure. Completely-null coordination is the other marked variation of multiple coordination (§6.3.2). It blocks sub-constituency by leaving all of the coordinators null-expressed.

### 6.4 Summary

The theoretical approach of this chapter is that the coordinator is a defective head. As a syntactic head, conjunction *waw* can be a null constituent with a particular function.<sup>54</sup> When one coordinator is null, it marks the left edge of a sub-constituent structure (§6.3.1). When all of the coordinators are null, it blocks any reading of sub-constituency (§6.3.2).

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<sup>54</sup> I see this as similar to how a null complementiser in an English main clause encodes declarative Force [<sub>CP</sub>  $\emptyset$  [<sub>TP</sub> I am feeling thirsty]] (Radford 2006:70–73). For more on null head elements and their function in English, see Radford 2006:59–84.

As a defective head, *waw* does not project its own category, but only that of the external conjunct. Thus, coordination allows for merging conjuncts of different syntactic categories, so long as they hold a semantic coherence expressed in relatedness or resemblance (§6.2.1). Moreover, since *waw* does not have scope over its domain, it allows other elements to take narrow or wide scope over the conjuncts. While narrow scope of the object marker (§6.2.2.1) or preposition (§6.2.2.2) allows for either a distributive or collective reading of the conjuncts, wide scope marks a collective reading. Finally, the so-called “disjunctive use” of *waw* in a negated clause is a result of the conjuncts undergoing distributive predication within the scope of negation (§6.2.2.3).

These last three chapters have each defended one point of the core proposal of this thesis: (1) coordination structure is hierarchical (2) with the conjuncts functioning as specifier and complement and (3) the coordinator functioning as a defective head. This cross-linguistic framework of coordination has helped explain the distribution and function of *waw* in BH. This chapter has introduced the concept of null coordination, which raises questions of how it is similar to—yet also distinct from—apposition. The next chapter addresses how phrasal coordination relates to apposition.

## CHAPTER 7: APPPOSITION AND COORDINATION OF CO-REFERENTIAL PHRASES

### 7.1 Introduction

One piece of a paradoxical puzzle was presented in the last chapter with the discussion of null coordination. This particular puzzle concerns how coordination and apposition, and syndeton (the use of *waw*) and asyndeton (the lack of any formal connector), relate. The relevant pieces are that coordination seems to be signaled by syndeton (piece #1) but may also occur with asyndeton (piece #2), while apposition seems to be signaled by asyndeton (piece #3) but may also occur with syndeton (piece #4).

The first two pieces have already been discussed in great detail in this thesis. Now it is necessary to discuss the second two pieces concerning apposition, because they interlock with the pieces concerning coordination. This chapter will first present a syntactic account of apposition (§7.2), and then discuss apposition (§7.3) and coordination of co-referential phrases (§7.4) in the Pentateuch.

### 7.2 Syntactic Structure of Apposition

Like coordination, the syntactic structure of apposition is still being debated in general linguistics. Conversely, in the field of BH, the syntax of apposition, like the syntax of coordination, is not discussed very much. In this section, I will first provide an overview of previous research on apposition in BH (§7.2.1). Then I will argue for a position on the syntax of apposition by critically engaging with the general linguistics literature (§7.2.2).

Linguists have not always used the same terms to refer to the components of apposition, but the terminology of Huddleston and Pullam (2002:1351) is intuitive and quite

standard today. I will consistently use the term *anchor* to refer to the first constituent, *appositive* to refer to the second constituent, and *apposition* to refer to the entire structure.

### 7.2.1 Overview of Previous Research in Biblical Hebrew

While few Hebraists engage in the discussion of the syntactic structure of apposition, every grammar book does provide a definition of apposition, and usually a discussion of the function of the appositive. In describing apposition, most grammars list the same constituent parts. Both the anchor and the appositive are (usually) nouns, (usually) stand side-by-side, (usually) match in definiteness, have the same referent, and fulfill the same syntactic function.<sup>1</sup> Apposition is a very common construction in BH, and Waltke and O'Connor say that it conforms to a broader Semitic tendency "to rely on the juxtaposition of elements" (IBHS §12f).

Similarly, there is broad agreement on the function of the appositive, although the exact terminology varies. According to these grammars, the anchor and the appositive form "a relationship of identity or equation" (JM §131a), wherein the appositive "determines [the anchor] more precisely" (IBHS §12.1b), "define[s the anchor] more exactly" (GKC §131a), or "modifies [the anchor] in some way" (BHRG §29). Each grammar then catalogs the semantic categories that define the various relationships between anchor and appositive with slightly different lists.

The grammars do, however, differ when discussing the syntax of apposition. While none provides a theoretical account, their opinions run the gamut concerning whether

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<sup>1</sup> See GKC §131; IBHS §12; JM §131; WHS §65–71; BHRG §29.

apposition is coordination (JM §131a), subordination (IBHS §12.1f, GKC §131a),<sup>2</sup> or a third relation that is neither coordinate nor subordinate (Livnat 2013). As yet another option, van der Merwe, Naudé, and Kroeze state, “Syntactically speaking an appositional element is always an adjectival modification” (BHRG §29.2). They seem to be intentionally avoiding the terminology of coordination and subordination altogether.

The most thorough syntactic analysis of apposition in BH is that of Holmstedt and Jones (2017). They distinguish between three different pairs of contrasts: full vs. partial, strict vs. weak, and restrictive (RA) vs. nonrestrictive (NRA) apposition. They give the following description of the third pair of contrasts:

Restrictiveness in apposition revolves around the type of presupposition set that is created for the proper identification of the anchor.... In [NRA], the anchor ... establishes a set of possible referents, but it is the anchor alone that makes the particular referent specific and identifiable. In contrast, in RA, the anchor alone does not render the intended referent identifiable; the appositive is needed to make the referent specific and identifiable (Holmstedt and Jones 2017:27).

Only the contrastive pair of RA vs. NRA is particularly relevant for the discussion of apposition in this thesis.

Holmstedt (2019b:624) states that RA “seems constrained almost entirely to number phrases,” as in (1) with the anchor as a free-form numeral. Adopting the convention of Holmstedt and Jones (2017), I indicate the anchor with single underlining and the appositive with double underlining.

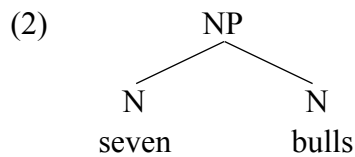
- (1)     וְהָכֵן לִי בַזָּה שִׁבְעָה פָּרִים     (Num 23:1)  
           wəhākēn                    l-î     bā-zê             šib‘ā pārîm  
           prepare.WCPFV.2MS to-1CS in.ART-this seven bulls  
           “‘And prepare for me in this (place) seven bulls.””

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<sup>2</sup> Neither grammar actually states the relationship explicitly. According to one, “Hebrew, like other semitic languages, tends to relate clauses by juxtaposition, the placing together of clauses, sentences, phrases without a logically subordinating particle” (IBHS §12.1f). According to the other, “[Apposition] is not infrequently found when either the subordination of one substantive to the other or some more circumstantial kind of epexegetical addition would be expected” (GKC §131a).

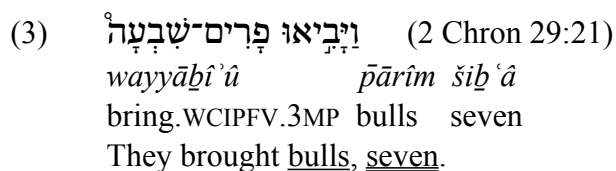
By itself, the anchor *seven* does not identify what Balak is to prepare. Thus, the appositive *bulls* restricts the referent to something specific (not sheep, goats, etc.).

RA and NRA differ not only in whether the anchor alone makes the referent properly identifiable (semantics), they also differ in their syntax. Holmstedt and Jones (2017:28) say that it is generally agreed for RA that the appositive is within the scope of the anchor. The structure of the apposition in (1) can thus be illustrated in (2).

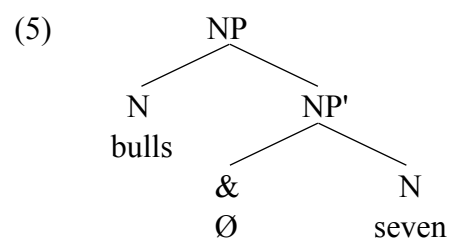
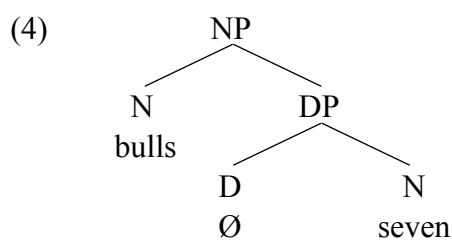


As pointed out above, the distribution of RA is quite limited and does not seem to interact with coordination data. I will, therefore, leave the consideration of RA aside and continue by addressing only NRA.

In NRA, the appositive may “provide more precise information relating to the anchor” (Holmstedt 2019b:629), but it is the anchor itself that makes the referent identifiable. Example (3) demonstrates NRA and provides a minimal-pair contrast with RA in (1).



Within NRA, the appositive is understood to be outside the scope of the anchor. However, it is disputed whether this should be accomplished by right-adjunction of the appositive (4) or by complementation within a coordination structure (5).



This question of the syntactic structure of NRA will be the principal matter of discussion in the next section. Here, it is sufficient to notice that the structure of NRA—whether it is (4) or (5)—is different than RA (2).

With this distinction in hand, Holmstedt and Jones (2017) present two further distinctions of NRA. First, while RA has a very limited semantic range, the wide array of semantic types of NRA can be summarised in the following list (6) (Holmstedt and Jones 2017:32).

(6) Category	Gloss
A. Equivalence	“or”
(i) appellation:	“that is”
(ii) identification:	“namely”
(iii) designation:	“that is to say”
(iv) reformulation:	“in other words”
B. Attribution	“as you know”
C. Inclusion	
(i) exemplification	“for example”
(ii) particularisation	“especially”

After showing examples for each entry in the inventory, Holmstedt and Jones (2017:40) propose that the function of the appositive should be viewed within the broader category of *predication* rather than as simply *identification* or *equivalence*.

Second, while the appositive in RA must remain adjacent to its anchor, within NRA it can be extraposed—moved to the rightmost edge of its clause (7) (Holmstedt and Jones 2017:42–47).

- (7) האִמִּים לְפָנַי יֵשְׁבוּ בְּהַ עִם גְּדוֹל וְרַב וְרַם כְּעֲנַקִּים (Deut 2:10)  
*hā-’ēmîm lə-pānîm yāšəḇû bḥ-āh ‘am gādôl wə-rab wā-rām*  
 ART-Emim to-face dwell.PFV.3MP in-3FS people great and-many and-tall  
*kā-’ānāqîm*  
 like.ART-Anakim  
 The Emim formerly dwelt in it, a people great and many and tall like the Anakim.

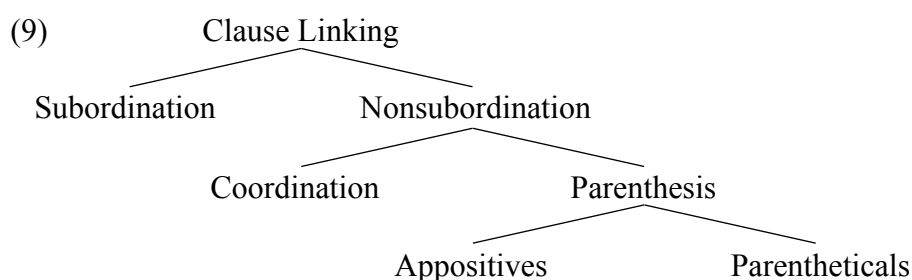
Kaajan (2019) objects, however, that Holmstedt’s (2014) applied definition of extraposition is too broad. She proposes that examples like (7) are better taken as afterthoughts, “a base-generated independent phrase outside the clause” (2019:64).

Finally, Holmstedt and Jones (2017) do endorse the coordination view of NRA, illustrated in (5) above, referring to it as *specifying coordination*. Their primary argument is that *waw* sometimes joins the appositive to the anchor, as in (8).

- (8) וַיֵּלֶךְ חִזְאֵל לִקְרַאתוֹ וַיִּקַּח מִנְחָה בְיָדוֹ וְכָל-טוֹב דְּמִשְׁקֵי מַשָּׂא אַרְבַּעִים גָּמַל  
 (2 Kgs 8:9)  
 wayyēlek ḥāzā’ēl lī-qarā’ t-ô wayyiqqah minḥâ  
 walk.WCIPFV.3MS Hazael to-meet.INF-3MS take.WCIPFV.3MS gift  
 bə-yād-ô wə-kol tûb dammeseq maśśā’ ’arbā’im gāmāl  
 in-hand-3MS and-all.GEN good.GEN Damascus load.GEN forty camel  
 Hazael went to meet him and took a gift in his hand, even (lit. *and*) all the goodness of Damascus, a load of forty camels.<sup>3</sup>

Thus, they re-classify the purported cases of “epexegetical *waw*” as instances of NRA. This view postulates a fourth main semantic type of coordination: conjunctive *and*, disjunctive *or*, adversative *but*, and specifying *that is*.

Holmstedt’s view has evolved since the publication of Holmstedt and Jones (2017). He now denies that NRA is a type of coordination and, instead, takes “apposition to be the anchored variety of general parenthesis (formal parenthesis being anchor-less), which stands as the sister of coordination within the larger category of nonsubordination” (Holmstedt 2019:626, n. 19). He presents the following typology of clause linkage (Holmstedt 2020:109):



<sup>3</sup> This is an example of iterated appositives (see §7.3.3). While Holmstedt and Jones (2017) do not discuss multiple appositives, I have sought to acknowledge this by breaking the double underline between the two appositives. Here, I do not try to indicate what should be taken as the anchor for the second appositive.

While *waw* is often used for prototypical coordination, it can also be used for nonsubordination, so its use “must be determined based on what is most felicitous in the discourse” (Holmstedt 2019b:625, n. 17). Thus, Holmstedt still affirms that *waw* may optionally introduce an appositive, but he does not investigate what exactly motivates the occurrences of *waw* within apposition, nor the factors that limit its distribution.

One feature of BH apposition that has curiously gone unanalysed is variation with multiple appositives. These appositives can be stacked (each appositive modifying the anchor) (10) or embedded (each appositive modifying the previous appositive) (11).

- (10) וַיִּקְנֵהוּ פוֹטִיפָר׃ סָרִיס פֶּרְעֵה שֶׁר הַטַּבָּחִים אִישׁ מִצְרָיִם (Gen 39:1)  
*wayyiqnē-hû pōtīpār sārīs par ‘ō śār*  
 buy.WCIPFV.3MS-3MS Potiphar officer.GEN Pharaoh commander.GEN  
*haṭ-ṭabbāhîm ’iš mišrî*  
 ART-guard man Egyptian  
 And Potiphar, Pharaoh’s official, the commander of the guard, an Egyptian man, bought him.

- (11) וַתִּקְרַבְנָה בָּנוֹת צִלְפָּחֵד בֶּן־חֶפֶר בֶּן־גִּלְעָד בֶּן־מַכִּיר בְּנֵי־מְנַשֶּׁה לְמִשְׁפַּחַת מְנַשֶּׁה בְּנֵי־יוֹסֵף (Num 27:1)  
*wattiqrabnâ bānôt šalophād ben hēper ben*  
 approach.WCIPFV.3FP daughters.GEN Zelophehad son.GEN Hopher son.GEN  
*gil ‘ād ben mākîr ben mēnaššē lə-mišpəhōt mēnaššē*  
 Gilead son.GEN Machir son.GEN Manasseh to-families.GEN Manasseh  
*ben yōsēp*  
 son.GEN Joseph  
 Then approached the daughters of [Zelophehad, the son of [Hopher, the son of [Gilead, the son of [Machir, the son of Manasseh according to the families of [Manasseh, the son of Joseph]]]]].

The reason that no account has been provided for these two different structures is that Hebraists have been concerned, almost exclusively, with the semantics of how the appositive relates to the anchor. This attention to semantics requires the investigation of structures with only one appositive.

The focus on semantics has neglected some very interesting data with multiple appositives, however. Consider (12), which includes both stacked and embedded appositives.

- (12) וַיְהִי יִצְחָק בֶּן-אַרְבָּעִים שָׁנָה בְּקַחְתּוֹ אֶת-רֵבְקָה בַת-בְּתוּאֵל הָאֲרָמִי מִפַּדַן אֲרָם  
 אֲחֹת לְבֵן הָאֲרָמִי לוֹ לְאִשָּׁה: (Gen 25:20)  
 wayəhî yiṣḥāq ben 'arbā'im šānā bə-qaḥt-ô 'et  
 be.WCIPFV.3MS Isaac son.GEN forty year in-take.INF-3MS ACC  
 ribqā bat bəṭū'el hā-'ārammî mip-paddan 'ārām  
 Rebekah daughter.GEN Bethuel ART-Aramean from-Paddan Aram  
 'āḥōt lābān hā-'ārammî l-ô lə-'iššā  
 sister.GEN Laban ART-Aramean to-3MS to-woman  
 Isaac was forty years old when he took [Rebekah, the daughter of [Bethuel, the Aramean of Paddan-Aram], the sister of [Laban the Aramean]] for himself as a wife.

The Hebrew of (12), as reflected in the English translation, is difficult to process. There are two stacked appositives that describe *Rebekah*. She is *the daughter of Bethuel* and *the sister of Laban*. Moreover, the final noun in each of these appositives functions as the anchor to an embedded appositive. *Bethuel* is *the Aramean from Paddan-Aram*, and *Laban* is *the Aramean*. And all of this is inserted in the middle of the proposition *when he took Rebekah for himself as a wife*. A syntactic theory of apposition must be able to account for this complex example.

This overview has revealed a general consensus regarding the definition of apposition and the function of the appositive. It is disputed, however, how to account for the optional non-contiguity of anchor and appositive. There also needs to be greater clarity regarding the structure of apposition, how exactly it relates to coordination, and what motivates and constrains when *waw* is able to conjoin co-referential phrases. This syntactic account of apposition must also account for stacked and embedded appositives, along with examples that combine the two approaches.

## 7.2.2 Critical Engagement with General Linguistics

This chapter is not a comprehensive treatment of the syntax of apposition, nor is this section a comprehensive engagement with the general linguistics literature on apposition. There have been many linguistics PhD theses written on apposition, and this is a thesis on coordination. Nevertheless, I will engage with representatives of the best linguistics literature on apposition to establish that apposition is not a type of coordination (§7.2.2.1); rather, it is a type of parenthesis (§7.2.2.2) with an adjunction relationship between anchor and appositive (§7.2.2.3). This will provide a necessary framework for distinguishing between apposition and coordination within the Pentateuch.

### 7.2.2.1 Apposition is Not a Type of Coordination

The view that apposition represents a specifying type of coordination has been promulgated mainly by de Vries (2002, 2006, 2009). De Vries (2009:47–53) and Heringa (2012:143–156) provide essentially the same lists of similarities between coordination and apposition: apposition elements (i) can be of any syntactic category; (ii) are functionally equivalent (similar to the RPR filter proposed for coordination); (iii) receive the same case (cf. Weisser 2020); (iv) can be linked with a coordinator; (v) the appositive can be multiplied via stacking or recursion; and (vi) the appositive can be extraposed. While the first three observations are genuine similarities between coordination and apposition,<sup>4</sup> the second three “similarities” ought to be viewed in a different light. When all of the evidence is considered carefully, we will see that apposition is not a type of coordination, even though the two constructions are similar in some respects.

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<sup>4</sup> Citko (2008:636–643) does provide arguments against the comparisons of category and case restrictions, and Lee (2015a:53) similarly argues against the comparison of category restrictions. While they may have a point, I am more inclined to accept the first three arguments of de Vries (2009) and Heringa (2012) as pointing out genuine similarities between apposition and coordination.

Regarding the use of the coordinator, de Vries provides the following examples in (13) for how coordinators can be used in apposition (2009:51), and even suggests that the overt coordinator is a spelled-out head for specifying coordination (2009:74).

(13a) Joop lives in The Netherlands, or Holland, as it is often called.

(13b) Joop loves to visit capital cities, and/but especially Amsterdam.

However, Heringa (2012:145–146) points out that the coordinators in examples like (13) are not interchangeable due to their distinct usage:

If the disjunctive coordinator is used [as in (13a)], the anchor and the [appositive] refer in a similar way to the same entity. If the conjunctive coordinator is used [as in (13b)], on the other hand, the apposition gives a more informative description of the entity referred to by the anchor.

Also, Heringa (2012:147) notes that coordinators may only be used in identification constructions as in (13), not in attributive constructions (14) (cf. Citko 2008:649).

(14) #Lance Armstrong, or the cyclist, is training now with his cycling buddies.

Exactly why the use of coordinators in conjoining co-referential phrases is limited will be addressed in §7.4. For now, it suffices to say that the use of a coordinator within apposition is a limited, marked construction.

The limited use of coordinators does not require that apposition is a kind of coordination; moreover, the position of some apposition markers follow a different syntactic pattern than coordinators. Heringa (2012:148–149) provides the following example to show that the apposition marker *that is* may optionally occur before or after the appositive.

(15) Dicken's most productive period, {that is (to say) the 1840s / the 1840s, that is (to say)}, was a time when public demand for fiction was growing at a tremendous rate.

Within coordination, on the other hand, the coordinator is always found between the two conjuncts, as discussed in §3.3.1.

Regarding the multiplicity of appositives, there is once again a difference between apposition and coordination, even though in principle it is possible to connect an infinite number of appositives or conjuncts. Heringa (2012:152–154) notes that the multiplicity of appositives can be done through stacking (16) or recursion (17).

(16) The reporter interviewed Lance Armstrong, a rider for the U. S. Postal team, a cancer survivor.

(17) [John, the boyfriend of [Mary, a nice girl],] is a linguistic celebrity.

De Vries (2009:39, 49) even produces a complex apposition example with stacking and recursion (18), and says that it is equivalent to sub-constituency within coordination (19).

(18) [[Insects, those six-legged animals], and in particular [the mosquito, the most annoying of all]], swarm around in big numbers during the summer.

(19) [Either [John and Paul], or [Mary and Susan]] are allowed to leave the house.

I agree that stacked appositives (16) are similar to examples of multiple coordination; however, recursion in (17)–(18) is unlike sub-constituency within multiple coordination (19).

What Heringa (2012) calls *recursion* in (17), de Vries (2009) calls *layered recursion*, and I prefer to call *embedding*. The fact that conjuncts can form sub-groups within coordination is not the same as embedded appositives. This can be seen more clearly in a more extreme case of embedding, such as (11), repeated here.

(11) Then approached the daughters of [Zelophehad, the son of [Hepher, the son of [Gilead, the son of [Machir, the son of Manasseh] according to the families of [Manasseh, the son of Joseph]]]]].

With each appositive modifying the previous appositive, (11) is an example of five distinct levels of apposition, while (19) as an example of sub-constituency shows that there may be a maximum of only two levels of coordination. It may seem that the embedding in (19) is limited by the *either ... or* structure, but I am not aware of any other example of multiple coordination that goes beyond one level of embedding.

Moreover, (18) is not really an example of stacked and embedded appositives. A better example would be (12), copied from earlier.

- (12) Isaac was forty years old when he took [Rebekah, the daughter of [Bethuel, the Aramean of Paddan-Aram], the sister of [Laban the Aramean]] for himself as a wife.

The unique complexity of (12) comes from going in and out of levels of embedding, illustrated in the following chart.

Level 1	Level 2	Level 3
Rebekah		
	the daughter of Bethuel	
		the Aramean of Paddan-Aram
	the sister of Laban	
		the Aramean

After the appellation for Bethuel reaches into level 3, the author climbs back into level 2 in order to give Rebekah a second appellation. Coordination does not allow for the complexity that stacked and embedded appositives create in (12).

Finally, regarding extraposition of the appositive, once again the similarity with coordination is merely apparent. Heringa (2012:15) produces an extraposition example of apposition (20) that appears identical to coordination (21).

- (20) I met John yesterday, a really nice guy.

- (21) John bought a book yesterday, and a newspaper.

In §5.3.3, however, I showed that extraposition examples of coordination, like (21), are produced by a type of ellipsis known as stripping, not via movement.

De Vries (2009:57–68) makes a case for extraposition of the appositive, similar to Heringa (2012), saying that it is specifying coordination with deletion. His analysis (given in a wooden English translation of the Dutch original) is presented in (22).

(22) I have [<sub>&P</sub> [a man seen] [ &' [~~a man~~ who a red hat wore seen]]].

He states that his &P analysis of an extraposed appositive in (22) has three important characteristics, which are the following:

First, the deletion may involve non constituents and discontinuous material. Second, deletion of all material that is repeated is obligatory. Third, the deletion is directed forward... Furthermore, it is clear that the remnants *must* provide new information (de Vries 2009:65, emphasis original).

While superficially very similar to the stripping analysis advanced in §5.3.3, there is an important difference with this ellipsis account of appositive extraposition.

Within the stripping analysis of §5.3.3, I showed that the remnant in the ellipsis clause is always in contrastive Topic/Focus with the corresponding constituent in the base clause. De Vries' analysis in (22) is different. The remnant *who a red hat wore* that provides new information does not have a corresponding constituent in the base clause. One could say the correspondence is with the anchor *a man*, but de Vries regards the anchor to be deleted in the coordinated clause. His analysis demonstrates neither characteristic of stripping—correspondence and contrast. So far, it has been shown that the use of the coordinator, of multiplicity, and of extraposition are actually quite different between coordination and apposition. Therefore, I conclude that what is left of the actual similarities between the two is not enough to justify treating apposition as a specifying type of coordination.

### **7.2.2.2 Apposition is a Type of Parenthesis**

Heringa (2012) does adopt many of de Vries' (2009) arguments presented above and affirms that apposition has aspects of coordination and subordination. However, he presents five distinguishing facts of apposition to argue that “the appositional construction, represented by [parenthesis], and coordination are two types of a bigger group, namely parallel construal” (Heringa 2012:145). Like parentheses, appositives cannot be the Focus of a cleft

sentence; can have their own independent, temporal reference; are not selected as arguments by the predicate; can precede the finite verb in verb-second languages; and are outside the scope of quantifiers, negation, and mood (Heringa 2012:110–112).

As a type of parenthesis, appositives are linearly integrated into the host sentence and yet are prosodically, semantically, and syntactically independent to some degree. Other types of parentheses include relative clauses, interjections, amalgams, vocatives, parentheticals, reporting clauses, and comment clauses (Heringa 2012:109). Apposition involves “a secondary proposition that expresses the predicational relationship between the anchor and the [appositive] ... [which carries] an independent truth value,” which is illustrated in (23) (de Vries 2009:68–69).

- (23) Anna invited Joop, her best friend, for dinner.  
(i) Primary proposition = Anna invited Joop for dinner  
(ii) Secondary proposition = Joop is her best friend

The secondary proposition that comes from apposition is not overt in the syntax but implied as a conventional implicature (Potts 2003). It provides extra, new information that is independent from, and less important than, the matrix proposition (Heringa 2012:215–217).

The independent nature of the secondary proposition can be seen in several respects. First, appositives can host sentence adverbs such as *presumably* in (24) (Lee 2015a:18).

- (24) They arrested a homeless man, presumably Peter, near the cathedral.

Second, appositives can host their own illocutionary Force. The appositive may be interrogative while the host is declarative (25a) and vice versa (25b) (Lee 2015a:17).

- (25a) Peter calls some person, perhaps his father?, twice a day.

- (25b) Is Jane, the best doctor in town, already married?

Third, appositives are outside the scope of operators like negation (26) and mood (27) (Heringa 2012:112).

- (26) John did not kiss Mary, his girl friend.  
 (i) => Mary is his girl friend  
 (ii) ≠> Mary is not his girl friend
- (27) You should be a linguist, someone who studies language.  
 (i) => a linguist is someone who studies language  
 (ii) ≠> a linguist should be someone who studies language

Particularly this third point, the scopelessness of appositives, sets apposition apart from coordination, because the coordinator, as a defective head, allows other elements to take narrow or wide scope over the conjuncts (see §6.2.2). As such, the coordinator does not render its conjuncts invisible to scopal effects.

The propositional nature of appositives reveals one final unique element of apposition: the appositive is not an argument. Chomsky (1981) formulated the “i-within-i condition,” which forbids an NP constituent whose reference depends on the antecedent of the pronoun that it contains, illustrated in (28).

- (28) \*[the writer of his<sub>i</sub> book]<sub>i</sub>

However, as noticed by Kubo (2009:31), the i-within-i condition applies only to an argument (29a), not to a predicate nominal (29b). Because an appositive is not an argument, but a secondary predicate, it is likewise immune to the i-within-i condition (29c).

- (29a) \*[His<sub>i</sub> own cook]<sub>i</sub> entertained his guests with the delicious meal yesterday.

- (29b) Bill<sub>i</sub> is [his<sub>i</sub> own cook]<sub>i</sub>.

- (29c) Bill<sub>i</sub>, [his<sub>i</sub> own cook]<sub>i</sub>, entertained his guests with the delicious meal yesterday.

As will be explained more thoroughly in the next section, the fact that appositives are not arguments fits perfectly with an analysis that apposition is not a complementation relationship like that of coordination, but rather is adjunction.

In sum, it has been shown that the use of the coordinator, multiplicity, and extraposition distinguish NRA from coordination. NRA is rather a type of parenthesis, which

expresses a secondary propositional relationship between the anchor and appositive. Apposition introduces new information with a truth value that is independent from the matrix proposition. As a secondary predication, an appositive is invisible to scopal effects and escapes the i-within-i condition. None of these syntactic features is shared by conjuncts, which are arguments of the predicate. Apposition is not a type of coordination.

### 7.2.2.3 Apposition is an Adjunction Relationship

There is broad agreement that apposition is a type of anchored parenthesis (Koster 2000, de Vries 2009, Heringa 2012, Lee 2015a, Holmstedt 2019b, 2020). De Vries (2009:79) states that an anchored parenthesis “involves an (implicit) predication, such that some anchor within the host sentence is interpreted as the subject, and the overt parenthetical material as the predicate.” As indicated in the previous section, there are many different types of anchored parentheses.

The question here is whether anchored parentheses all employ the same kind of syntactic relation. De Vries (2009) advances the view that different syntactic relations are at work. He takes certain types of anchored parentheses to be right-adjunction, like the Dutch afterthought example in (30a), in which case he prefers the base-generated analysis of (30b) over the more complex clausal deletion approach for specifying coordination (30c) (2009:80).

(30a) Ik heb Joop gezien – een leuke jongen.  
 I have Joop seen a nice guy  
 “I saw Joop – a nice guy.”

(30b) [CP [CP Ik heb Joop<sub>i</sub> gezien [<sub>PARP</sub> PRO<sub>i</sub> [ PAR [een leuke jongen]]]]]

(30c) Ik heb [<sub>&P</sub> [Joop gezien] [<sub>&</sub> [[<sub>PARP</sub> [Joop] [ PAR [een leuke jongen]]]  
~~gezienn~~]]]

Even though de Vries does not present syntactic arguments to exclude the analysis of (30c), he prefers the simpler analysis of (30b).

Lee (2015a), on the other hand, strongly defends the thesis that afterthought appositives (as in [30a]) and anchor-adjacent appositives should be analysed as a single construction, since they share many characteristics and differ only in linear order. Both types of appositives can host overt discourse markers, contribute a secondary proposition, block extraction of any material inside the appositive, carry their own illocutionary Force, escape the scope of main sentence operators, and project out of conditionals (Lee 2015a:7–23). Since the apposition constructions differ only in linear order, Lee (2015a) proposes to treat them—and indeed all other types of anchored parentheses—as normal NP adjuncts, thus extending the approach of others who view appositive relatives as adjunction (e.g. Del Gobbo 2003, Potts 2003, Citko 2008).

Within x-bar theory, the distinguishing mark of adjunction is that it conserves bar-level information, while complementation changes bar-level information. However, since Chomsky’s (1995) presentation of bare phrase structure (BPS), one of the core tenets has been the Inclusiveness Principle (IP), which stipulates that “interface levels consist of nothing more than arrangements of lexical features” (Chomsky 2015:225). This, in effect, removes bar-level information from the purview of syntax.

Hornstein and Nunes (2008) propose a syntactic account for adjunction that is consistent with BPS and the IP. To build phrase structure, they propose two operations: concatenation (otherwise known as *Merge*) and labeling. Their central insight is that complements require integration into structures with labels while adjuncts do not. As the key to their system, they employ neo-Davidsonian semantics, which states that the core of a proposition is the event. Everything else in a clause modifies the verb, which predicates the event. To illustrate, they produce sentence (31a) and its logical form (31b) and comment, “The verb *eat* and the adjunct *in the yard* apply to the event directly, whereas *John* and *the*

*cake* modify the event [indirectly] via two designated relations, here marked *subject* and *object*” (Hornstein and Nunes 2008:70).

(31a) John ate the cake in the yard.

(31b)  $\exists e$  [eating(e) & subject(John,e) & object(the cake,e) & in-the-yard(e)]

In order to be interpreted, the arguments *John* and *the cake* need the labels (thematic relations) of agent and theme respectively (cf. Baker 1988), but adjuncts may modify the event directly and do not need a label to be properly interpreted.

Hunter (2015) advances the framework of Hornstein and Nunes (2008) but uses slightly different terminology. He says there are three basic operations in syntax: Insert, Merge, and Spell-out. The operation Insert “introduces an element into the derivational workspace without establishing any grammatical dependencies” (Hunter 2015:275). Merge “checks features and thereby establishes head-argument relationships” (2015:296). And the operation Spell-Out “semantically and phonologically composes units among which Merge has established head-argument relationships” (2015:296). Applying this to adjunction he says,

The division of labor between merge and spell-out ... makes it possible for adjuncts to be introduced (i.e., inserted and then taken into account by interpretive operations (i.e., spell-out) without interfering with the more richly articulated structure established among heads, complements, and specifiers (Hunter 2015:299).

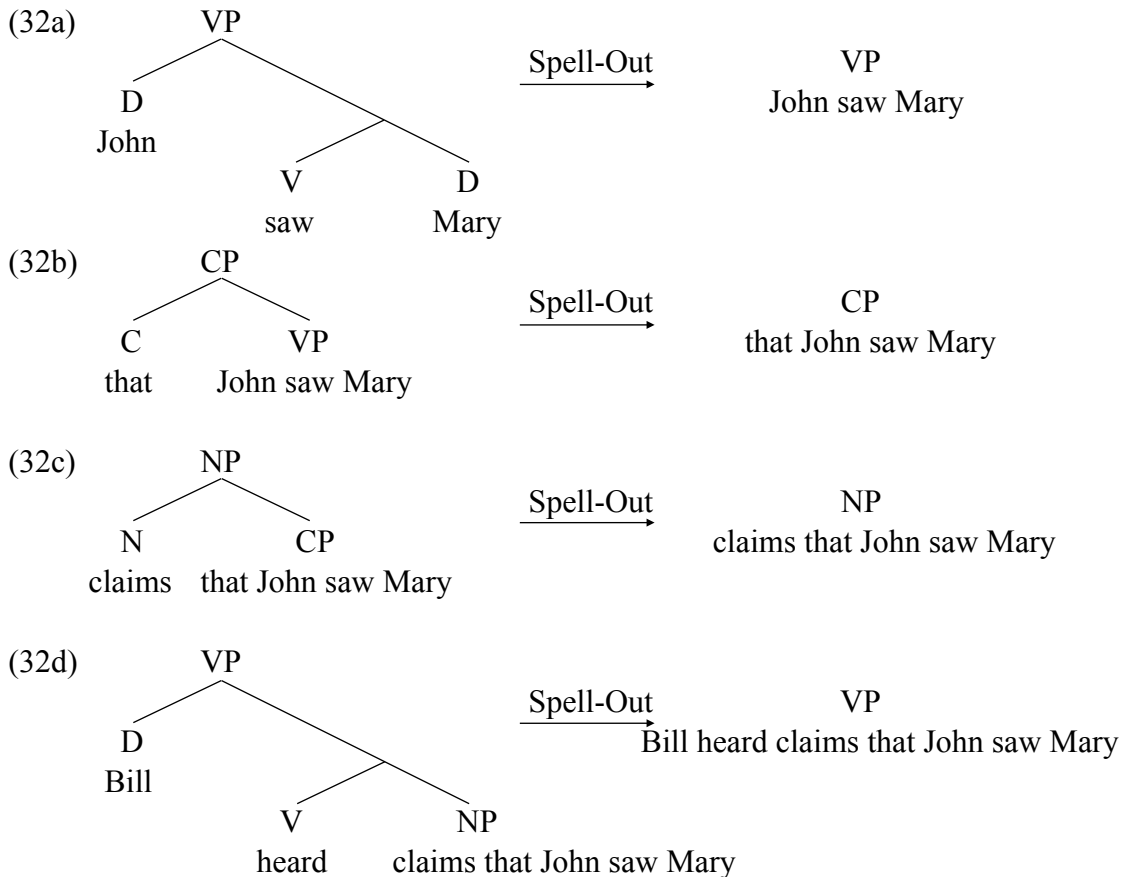
In short, adjunction allows a constituent to undergo Insert and Spell-Out without being merged. Although they present equivalent frameworks, in what follows I will favour the terminology of Hunter (2015) to that of Hornstein and Nunes (2008).

Hunter’s (2015) account of the flexible linearisation of adjuncts is fleshed out more by Hunter and Frank (2014). They incorporate Multiple (cyclic) Spell-Out as a central assumption with the following description:

Each maximal projection is a Spell-Out domain. Hence, a derivation is naturally partitioned into “chunks,” or “phases.” During each chunk *C*, there is a single

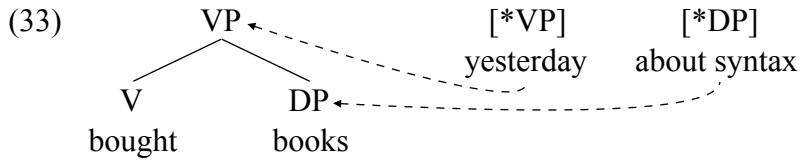
syntactic head X such that every Merge step in C establishes either a complement or a specifier of X. At the end of a chunk or phase, Spell-Out applies and produces a word-like object, lacking internal syntax but with the semantics, phonology, and formal features of the derived XP, which then serves as a constituent that can participate in a subsequent chunk of the derivation (Hunter and Frank 2014:234).

To illustrate their point, they provide the following four-phase derivation of the string *Bill heard claims that John saw Mary*.



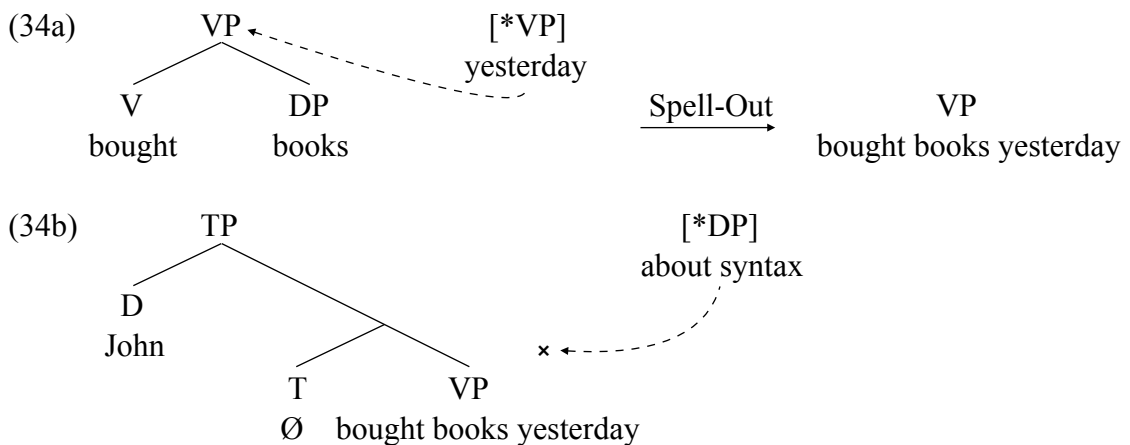
Because an adjunct does not take part in the Merge operation that builds syntactic structure, it can be inserted into the derivational workspace in any of the four phases in (32).

The concept of cyclic Spell-Out allows for the flexible linearisation of adjuncts. An adjunct enters the derivation lexically specified for the type of constituent it modifies; in this schema, an adverb is annotated as [\*VP]. Since adjuncts contribute nothing to structure-building, multiple adjuncts may be introduced in a single phase and their phonological linearisation is freely ordered in Spell-Out.



Thus, (33) can be realised as *bought books yesterday about syntax* or as *bought books about syntax yesterday* (Hunter and Frank 2014:243–244).

The cyclicity of Spell-Out not only allows for flexible linearisation of adjuncts, it also limits their distribution. Theoretically, an adjunct can be inserted into the derivation in any phase, but it can only be spelled-out if the constituent it modifies is still visible. For instance, in (33) the adjunct *about syntax* can modify *books*, because the DP is still visible during the VP phase. The adjunct also could have been inserted in the prior phrase when the maximal projection of DP was being built. However, if it was not inserted during the VP phase (34a), the DP would no longer be visible during the subsequent TP phase (34b) (Hunter and Frank 2014:244).



This system naturally accounts for “the fact that extraposed adjuncts appear exactly one maximal projection above the one they modify semantically” (Hunter and Frank 2014:236).

There are two final issues regarding the linearisation of adjuncts at Spell-Out. First, Hunter and Frank (2009:241) say that the distinction between right adjuncts [ $*_r$ XP] and left adjuncts [ $*_l$ XP] is lexically specified. This means that some lexical words will occur to the

right—and others to the left—of the word they modify. Second, they say on the one hand that adjuncts, as unmerged elements, “are linearised at the edge ... of the output of the phase where they are introduced, irrespective of the position of the target of semantic modification within that phase” (2014:243). On the other hand, they say, “We must also allow an adjunct that semantically modifies an XP in a complement or specifier position to be linearised at the edge of that complement or specifier instead” (2014:252). I take it that there are often two linearisation possibilities for an adjunct in Spell-Out after it is inserted into a phase.

Without any modification, this framework for adjunction can account for the syntax of appositives in the Pentateuch (see §7.3 below). An anchor-adjacent appositive is introduced in the same phase where the constituent it modifies is a specifier or complement of the derivational head; an extraposed appositive appears exactly one maximal projection above the one that it modifies semantically.

### **7.2.3 Summary**

In the overview of the BH literature on apposition (§7.2.1), one notices a general consensus concerning the semantics but not the syntax. There is a dispute over how to account for the optional non-contiguity of anchor and appositive. There is also a need for greater clarity regarding the structure of apposition and how exactly it relates to coordination.

In critically engaging with the general linguistics literature on apposition (§7.2.2), I argued that the use of coordinators, embedded appositives, and extraposition of the appositive distinguish NRA from coordination (§7.2.2.1). Apposition is not a type of coordination with a complementation structure, but an anchored type of parenthesis (§7.2.2.2) with an adjunction structure (§7.2.2.3).

As a type of anchored parenthesis, NRA expresses a secondary propositional relationship between the anchor and appositive that introduces new information with a truth value that is independent from the matrix proposition. As a secondary predication, the appositive is invisible to scopal effects and escapes the *i-within-i* condition. None of these syntactic features is shared by conjuncts, which function as arguments of the predicate in the matrix clause.

As non-arguments, appositives fit within an adjunction analysis. They are optional constituents with flexible linearisation. Following Hunter and Frank (2014; cf. Hornstein and Nunes 2008, Hunter 2015), I assume that adjuncts are able to undergo Insert and Spell-Out without being merged. As will be demonstrated below in §7.3.3, this framework is able to account for how multiple appositives can be stacked and embedded. Finally, the linearisation of appositives depends on which phase they are inserted with a Multiple Spell-Out approach.

### **7.3 Apposition in the Pentateuch**

With a theoretical account in hand—apposition as an adjunction relationship—we can now address the data in the Pentateuch. First, we will look at two syntactic features of apposition: the scopelessness of the appositive (§7.3.1) and the flexible linearisation of the appositive (§7.3.2). Then we will account for three similar constructions: iterated appositives (§7.3.3) coordinate-complex appositives (§7.3.4), and coordinated appositives (§7.3.5).

These first three sub-sections address issues that naturally result from an adjunction analysis. The last two sub-sections address the use of *waw* within apposition. Distinguishing coordinate-complex appositives (§7.3.4) from final coordination (§5.5), and coordinated appositives (§7.3.5) from iterated appositives (7.3.3), will set the stage for §7.4, which demonstrates that coordinated co-referential phrases are distinct from cases of apposition.

### 7.3.1 Scopelessness of the Appositive

Cross-linguistically, it has been reported that appositives can carry their own illocutionary force, escape the scope of negation and mood, and project out of propositional attitude verbs and conditionals (Lee 2015a). Or, in short, they display a feature of scopelessness that is characteristic of parentheses. From a theoretical perspective, this is to be expected if appositives are indeed adjuncts, because “adjuncts may be invisible to certain grammatical computations” (Hornstein and Nunes 2008:71–72). A degree of grammatical invisibility for adjuncts is a result of their ability to be inserted into any phase of the derivation and spelled-out without being merged into the structure.

There are not many apposition examples in the Pentateuch that display the scopelessness of the appositive, but there are some. Example (35) shows that the appositive is outside the scope of negation,<sup>5</sup> and (36) shows that the appositive is outside the scope of the temporal marker.<sup>6</sup>

- (35) וְלֹא חָשַׁקְתָּ אֶת־בְּנֶךְךָ אֶת־יְחִידְךָ: (Gen 22:16)  
*wə-lō' ḥāsaktā 'et bīnə-kā 'et yaḥīde-kā*  
 and-NEG withhold.PFV.2MS ACC son-2MS ACC only-2MS  
 “And you did not withhold your son, your only.”

- (36) וַיְהִי כִּי עָלִינוּ אֶל־עַבְדְּךָ אָבִי וַנִּגַּד־לּוֹ אֶת דְּבָרֵי אֲדֹנָי: (Gen 44:24)  
*wayəhī kī 'ālīnū 'el 'abdə-kā 'āb-î*  
 be.WCIPFV.3MS when go.up.PFV.1CP to servant-2MS father-1CS  
*wannagged l-ô 'ēt dibrê 'ăḏōn-î*  
 tell.WCIPFV.1CP to-3MS ACC words.GEN lord-1CS  
 “When we went up to your servant my father, we told him the words of my lord.”

Due to the scopelessness of the appositive, (35) does not entail *your son is not your only one*, and (36) does not entail *when your servant was/became my father*.

<sup>5</sup> See Gen 16:1; Gen 22:12; 38:26 for other examples with negation.

<sup>6</sup> See Gen 44:30 for another example with a temporal marker.

### 7.3.2 Flexible Linearisation of the Appositive

Usually the anchor and appositive are contiguous, but not always. Holmstedt (2014:133, n. 46) claims that the separation can be the result of extraposing the appositive to the end of the clause or fronting the anchor to the beginning of the clause.<sup>7</sup> He refers to the fronting option as *stranding* the appositive/relative clause, but not even in his published monograph on the relative clause does he give a syntactic account for stranding (Holmstedt 2016:189–191). While I think he is largely correct that there are two structures—extraposition and stranding—this has to be demonstrated rather than asserted, because Arnold (2007:285) goes to some length to argue that the anchor itself cannot move and thereby strand the non-restrictive relative clause.

There are three motivations for why an anchor and its appositive may be non-contiguous: flexible linearisation of multiple adjuncts, extraposition of the appositive, and fronting of the anchor. Only the third reason should have an effect on interpretation. As the first of the non-significant reasons why an appositive may be separated from the anchor, (37a) shows multiple adjuncts at the end of a clause, and (37b) provides the syntactic analysis.

- (37a) וַיִּזְבְּחוּ זְבָחִים שְׁלָמִים לַיהוָה פָּרִים: (Exod 24:5)  
 wayyizbəḥû zəbāḥîm šalāmîm l-yhwh pāriḥ  
 sacrifice.WCIPFV.1CP sacrifices whole to-YHWH bulls  
 They sacrificed whole sacrifices to YHWH, bulls.



<sup>7</sup> In referring to the movement of a constituent to the left edge of the sentence, I follow Holmstedt's (2014) terminology in calling it *fronting*. Miller-Naudé and Naudé (2019a) call it *topicalisation*. Regardless of label, these authors agree that this constituent surfaces in a non-canonical position via (1) movement (2) to the left boundary of the clause (3) with no resumptive element in the clause. They also agree that there is a different construction, left dislocation, which is distinguishable with the constituent surfacing in a non-canonical position via (1) base generation (2) outside the left boundary of the clause (3) with a resumptive element in the clause. I agree with this analysis and, thus, I use the term *fronting* in the same sense as Holmstedt (2014). I do not think it is helpful to blur the differences in these constructions as Westbury (2014, 2016) does in also using *fronting* to refer to *left dislocation* (which distinctly has resumption).

Since adjuncts contribute nothing to structure-building, multiple adjuncts may be introduced in a single phase, as in (37b), and their phonological linearisation is freely ordered in Spell-Out. Thus, while (37a) is the actual Spell-Out of Exod 24:5, *pārîm* could as easily have been linearised before *l-yhwh*, creating a contiguous anchor and appositive.

The other non-significant reason an appositive may be separated from the anchor is for extraposition, placing the appositive in a clause-final position for “processing ease of ‘heavy’ constituents” (Holmstedt 2014:150). Example (7) illustrates this, a condensed version of which is repeated below, along with (38).<sup>8</sup>

(7)       הָאֱמִים לְפָנִים יֵשְׁבוּ בָּהּ עַם גָּדוֹל וְרַב וְרַם כְּעֲנָקִים: (Deut 2:10)  
 The Emim formerly dwelt in it, a people great and many and tall like the Anakim.

(38)       וַיִּקְחוּ אֶת-לוֹט וְאֶת-רֶכְשׁוֹ בְּנֵי-אָחִי אַבְרָם (Gen 14:12)  
*wayyiqhû           'et lôṭ wə-'et rākūš-ô           ben           'ăhî*  
 take.WCIPFV.1CP ACC Lot and-ACC possessions-3MS son.GEN brother.GEN  
 'abrām  
 Abram  
 They took Lot and his possessions, the son of the brother of Abram.”

Placing a heavy appositive in a clause-final position is another manifestation of end-weight (cf. §4.3).<sup>9</sup> I intentionally use the term *place* to distinguish the analysis that I adopt (§7.2.2.3) from a movement analysis (Holmstedt 2014, 2016, Miller-Naudé and Naudé 2019a).<sup>10</sup> Rather

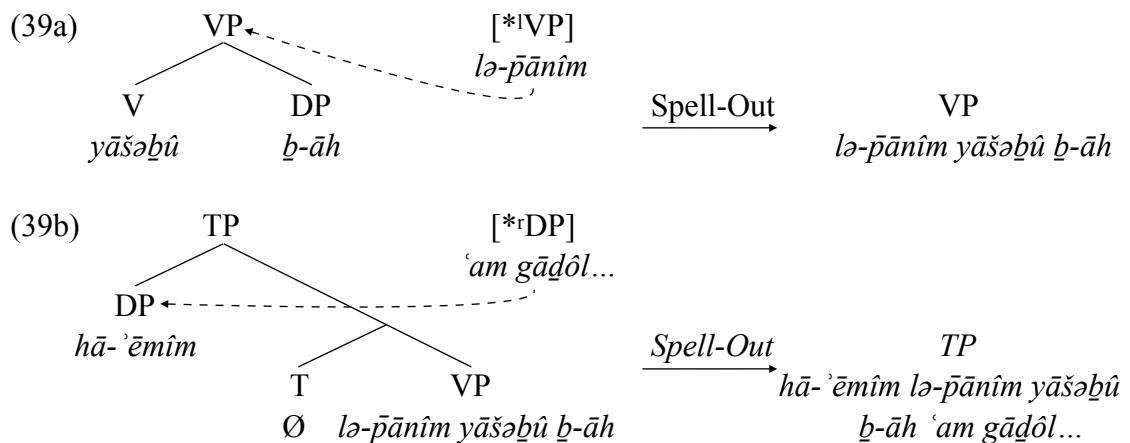
<sup>8</sup> See Gen 19:4; 35:14; Exod 3:16; 27:6; 36:20; Deut 1:15 for other examples.

<sup>9</sup> As Holmstedt (2014:140) explains, “The most common use of extraposition relates to an automatic ‘processing’ linear re-ordering, whereby complex entities, especially embedded constituents such as relative clauses are moved rightward to allow the simpler syntactic constituents to be cognitively processed first and thus more easily.”

<sup>10</sup> Holmstedt (2014:138) claims that extraposition is “associated with Topic and Focus.” But all of the examples of extraposed appositives provided by Holmstedt and Jones (2017:42–47) fit with an end-weight analysis, as do all of my examples from the Pentateuch (see footnote 8). Admittedly, this sample size is too small to try to make a definitive case against movement. Moreover, this is a rather inconsequential point, since my approach could incorporate a movement analysis of extraposition, since I already use a movement analysis with fronting. The crux of the matter is, however, if extraposition, as a right-edge construction, does in fact mirror fronting. I agree with Holmstedt (2014) and Miller-Naudé and Naudé (2019a) that fronting is a movement phenomenon without resumption, while left dislocation is base-generated and has resumption. If extraposition mirrors fronting, then it should also result from movement. Nevertheless, Miller-Naudé and Naudé (2019a) note asymmetries between the left- and right-edge constructions, so the assumption that extraposition mirrors fronting may be misguided. If the extraposed appositive is not moved, it makes sense why it is not associated with Topic/Focus. Also, extraposition (no resumption) is still distinguishable from right dislocation (with resumption).

than resulting from movement, extraposition is a matter of which phase the adjunct is inserted into before Spell-Out.

Extraposition can be created by inserting the appositive adjunct in a later phase than the anchor, as long as the anchor constituent is still visible for modification. It can also be created by spelling-out the adjunct at the end of the phase. This can be demonstrated by showing two of the phases (39) that generate the extraposition example of (7).



In (39a), *lə-pānîm* is inserted into the phase as a left adjunct, and the phase is spelled out as a VP, which is then inserted as a complement of the null T head in (39b). In this second phase (39b), *'am gādôl...* is inserted as a right adjunct modifying the DP specifier *hā-'ēmîm*, but is “linearised at the edge ... of the phase,” which Hunter and Frank (2014:243) say is normally the case for adjuncts.

The third reason an anchor and its appositive may be non-contiguous is due to the fronting of the anchor. This should have an effect on interpretation, because fronting to a clause-initial position is associated with Topic/Focus (Holmstedt 2014). Movement in both (40) and (41) is motivated by Focus.<sup>11</sup>

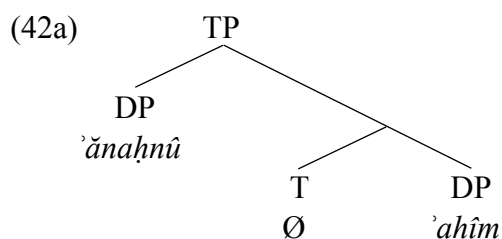
<sup>11</sup> See Gen 32:19; 42:32; Exod 32:16 for other examples of movement of the anchor, which also just happen to be fronted for Focus. I did not notice any examples of Topic-fronting.

- (40) בַּת־בְּתוּאֵל אִנֹּכִי בֶן־מִלְכָּה אֲשֶׁר יָלְדָה לְנָחֹר: (Gen 24:24)  
*bat bəṭú'el 'ānōkī ben milkā 'āšer yāləḏā lə-nāḥôr*  
 daughter.GEN Bethuel I.NOM son.GEN Milcah that birth.PFV.3MP to-Nahor  
 “The daughter of Bethuel; I am \_\_\_\_\_, Milcah’s son, whom she bore to Nahor.”
- (41) אָחִים | אֲנַחְנּוּ בְנֵי אִישׁ־אֶחָד (Gen 42:13)  
*'aḥīm 'ānaḥnū bənē iš 'eḥād*  
 brothers we.NOM sons.GEN man one  
 “Brothers; we are \_\_\_\_\_, the sons of one man.”

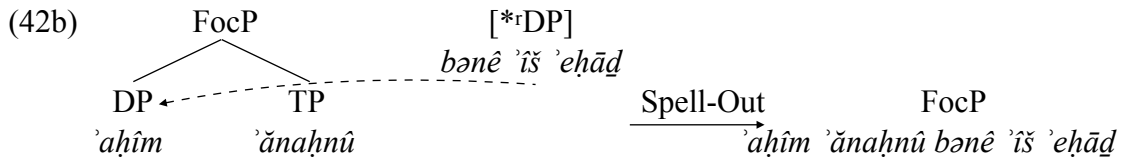
In (40), Rebekah places her lineage in contrastive Focus. Abraham has made his servant swear he will take a wife for Isaac from his land and kindred (Gen 24:3–4), so the servant goes to the city of Nahor, Abraham’s brother (24:10), and after inquiring who Rebekah’s father is (24:23), the servant learns that she is actually the granddaughter of Nahor (24:24).

Similarly in (41), Joseph’s brothers put in contrastive Focus the fact that there are twelve of them. When Joseph initially accuses them of being spies (Gen 42:9), they respond by saying that they have come only to buy food (42:10), and that they represent the sons of one man, not spies with ulterior motives (42:11). Once again Joseph accuses them of being spies (42:12), and it is here that the brothers reveal that there are twelve of them before once again insisting that they are brothers, of whom one has perished and one remains with their father (42:13). The key phrase that is fronted is *brothers*. The ten men are not a band of misfits on a secret operation. They are brothers sent by a desperate father from the famine-stricken land of Canaan.

The default word order for verbless clauses is subject-predicate (Buth 1999), so the first phase that produces (41) may be portrayed as (42a).



Before Spell-Out, however, the DP *'ahîm* is moved (or *re-merged*, keeping to the three operations of Insert, Merge, and Spell-Out) to the spec of FocP to check the Focus feature (42b). The appositive is also inserted and linearised at the end of the phase in Spell-Out.



To recap, while there are three reasons why an anchor and its appositive may be non-contiguous—flexible linearisation of multiple adjuncts, extraposition of the appositive, and fronting of the anchor—only anchor-fronting should have an effect on interpretation. The anchor is fronted to a clause-initial position for Topic or Focus.

### 7.3.3 Iterated Appositives

To recall in condensed form the data referenced earlier, there are different apposition constructions in the Pentateuch with iterated appositives. The appositives can be stacked (10),<sup>12</sup> embedded (11),<sup>13</sup> or both stacked and embedded (12).<sup>14</sup> All three of these constructions share the feature of *iteration*, being multiplied but not conjoined with the use of *waw*.

(10) וַיִּקְנֵהוּ פּוֹטִיפָרֹ סֹרִיס פְּרֹעָה שֶׁר הַטְּבָחִים אִישׁ מִצְרָיִם (Gen 39:1)  
 And Potiphar, Pharaoh's official, the commander of the guard, an Egyptian man, bought him.

(11) וַתִּקְרַבְנָה בָּנוֹת צִלְפָּחַד בְּוַחֲפָר בְּוַגְלֵעָד בְּוַמְכִיר בְּוַמְנַשֶּׁה לְמִשְׁפַּחַת מְנַשֶּׁה  
 בְּיִזְסָף (Num 27:1)  
 Then approached the daughters of [Zelophehad, the son of [Hepher, the son of [Gilead, the son of [Machir, the son of [Manasseh according to the families of [Manasseh, the son of [Joseph]]]]].

<sup>12</sup> For other examples, see Gen 11:31; 14:13, 22; 16:3; 21:4; 24:2; 25:12; 27:32; 36:3, 14, 18; 37:36; 38:12; 43:29; Exod 3:1, 8; 4:14; 6:7, 23; 7:4; 15:20; 18:1, 6; 29:38; 33:11; 34:23; Lev 10:16; 14:10; Num 11:18; 18:2; 21:1; 22:4, 10; 25:14, 15, 18; 26:1; 27:18; 28:9; 32:12; 34:22, 23, 24, 25, 26, 27, 28.

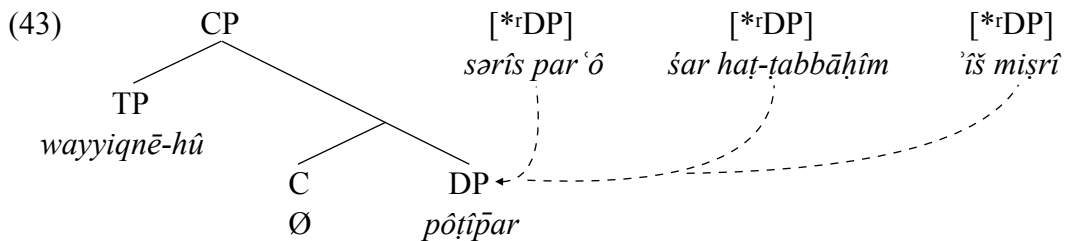
<sup>13</sup> For other examples, see Gen 24:12, 15, 42; 26:34[2x]; 29:10; 36:2, 10[2x]; 46:20; Exod 31:2; 35:30; 38:22; Lev 10:4; Num 4:16; 16:1; 17:2; 25:7, 11; 31:6.

<sup>14</sup> For other examples, see Gen 11:31; 28:5, 9; 34:2; 36:2.

- (12) וַיְהִי יצחק בן-ארבעים שנה בקחתו את־רבקה בת־בתואל האַרְמִי מִפְּדַן אַרָם  
 אַחֹת לְבִן הָאֲרָמִי לוֹ לְאִשָּׁה: (Gen 25:20)  
 Isaac was forty when he took [Rebekah, the daughter of [Bethuel, the Aramean  
 of Paddan-Aram], the sister of [Laban the Aramean]] for himself as a wife.

An adjunction theory of apposition is uniquely capable of generating the examples of (10)–(12), because it treats appositives as adjuncts, not as arguments.

A phase consists of a maximal projection with a head element merging with either its complement or specifier. Since adjuncts contribute nothing to structure-building, multiple adjuncts may be introduced in a single phase and become linearised in Spell-Out. The structure of stacked appositives in (10) is given in (43).



As adjuncts with flexible linearisation, the appositives in (43) could theoretically be rearranged in Spell-Out without affecting acceptability.

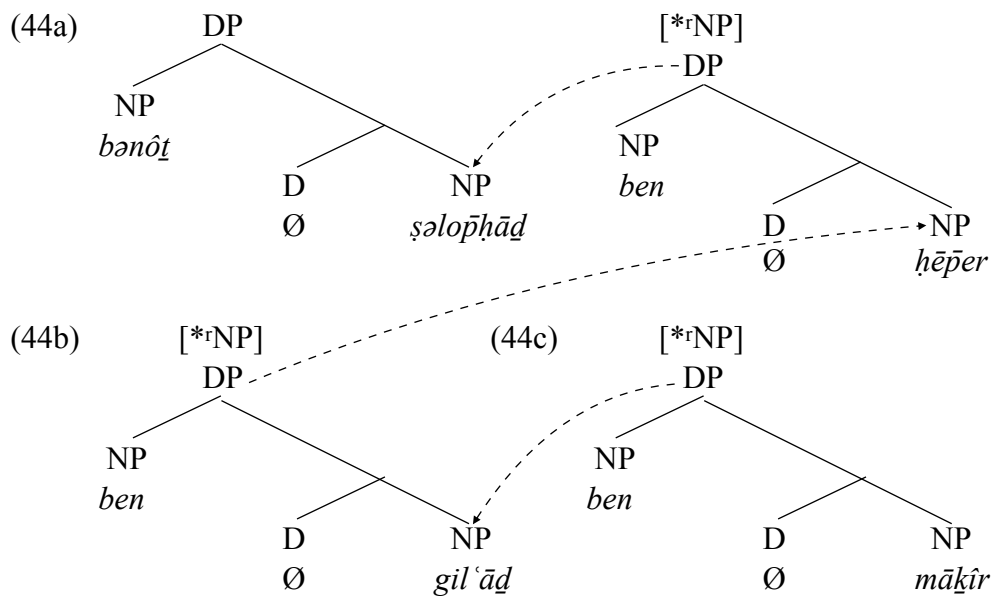
The construction of embedded appositives needs a little more theoretical justification.

Once again, the fact that adjuncts contribute nothing to structure-building is crucial:

An adjunct may be left dangling ... [and] may be targeted by some operation exactly because it is not a subpart of a bigger syntactic object. In particular, it is free to undergo merger in consonance with the Extension Requirement, as it is still a syntactic atom for purposes of concatenation (Hornstein and Nunes 2008:79).

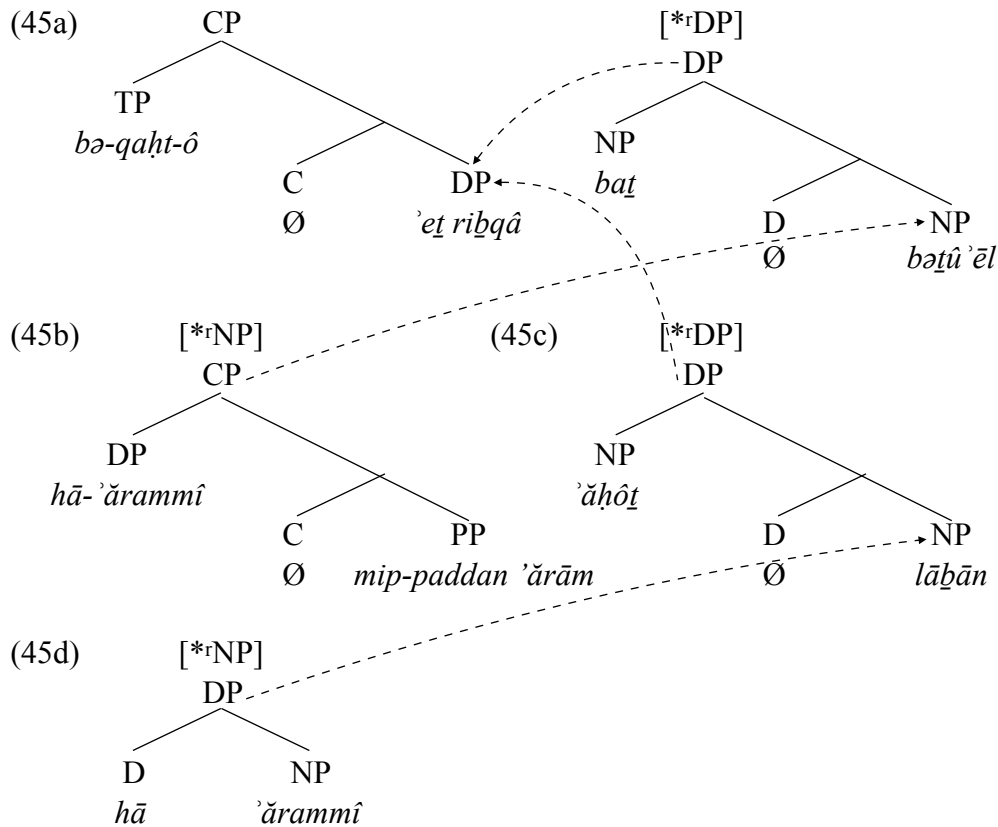
Thus, as adjuncts are iterated during a phase of structure-building, they may concatenate with a visible constituent in the structure or with another adjunct in the derivational workspace. To accomplish this, we must assume that an adjunct is inserted into the phase projecting a head feature of its own, and that it has its own internal structure (Hunter 2015:300, n. 18).

With these two assumptions in hand, we can now address the embedded-appositives example of (11). Without presenting the entire derivation, our analysis begins with the construction of the subject DP. In (44a), the appositive *ben ḥēp̄er* is inserted in the phase in order to modify *ṣaloḥhād̄*. In the same phase (44b), the appositive *ben gil'ād̄* is inserted to modify *ḥēp̄er*. Still within the same phase (44c), the appositive *ben māḱîr* is inserted to modify *gil'ād̄*.



By no means is (44) a full account of the generation of (11); however, it is sufficient for demonstrating how an adjunction analysis of apposition can account for embedded appositives.

In fact, this same analysis can account for examples of stacked-and-embedded appositives such as (12). Again, without presenting the entire derivation, our analysis begins with the construction of the non-finite CP. In (45a), the appositive *bat̄ baṭū'ēl* is inserted in the phase in order to modify *ribqâ*. In the same phase (45b), the appositive *hā-`ārammî mip-paddan `ārām* is inserted to modify *baṭū'ēl*. Still within the same phase (45c), the appositive *`āḥōṭ̄ lāḥān* is inserted as another modifier of *ribqâ*. Finally in (45d), *hā-`ārammî* is inserted to modify *lāḥān*.



To put it simply, the adjuncts inserted in (45a) and (45c) are stacked appositives, which concatenate with the complement DP, *Rebekah*, in the main structure. The adjuncts inserted in (45b) and (45d) are embedded appositives, which concatenate with an element in the previously inserted adjunct. It is precisely due to an adjunct being able to concatenate with a visible constituent in the structure or with another adjunct in the derivational workspace that produces stacked-and-embedded appositives.

### 7.3.4 Coordinate-Complex Appositives

In the previous sub-section, we looked at examples of multiple appositives that were iterated into the structure without the use of *waw*. Here we will address apposition examples with a single appositive that is made up of a coordinate NP. The task in this section is to describe the basic semantics and syntax of this construction and distinguish representative examples from cases of final coordination (§5.5).

When a coordinate NP serves as an appositive, the anchor is usually either (semantically) plural (46)<sup>15</sup> or is a singular noun that refers to a complex whole (47).<sup>16</sup>

(46) וַיְבִינּוּ עָרֵי מִסְכָּנוֹת לְפָרְעֹה אֶת־פְּתָם וְאֶת־רַעַמְסֵס׃ (Exod 1:11)  
*wayyīben 'ārē miskānōt la-ḥar'ō 'et pītōm wə-'et*  
 build.WCIPFV.3MS cities.GEN depot to-Pharaoh ACC Pithom and-ACC  
*ra'amsēs*  
 Raamses  
 They built depot cities for Pharaoh, Pithom and Raamses.

(47) וַיְבִיאוּ אֶת־הַמִּשְׁכָּן אֶל־מֹשֶׁה אֶת־הָאֵהָל וְאֶת־כָּל־כֵּלָיו׃ (Exod 39:33)  
*wayyābū 'et ham-miškān 'el mōšē 'et hā-'ōhel*  
 bring.WCIPFV.3MP ACC ART-tabernacle to Moses ACC ART-tent  
*wə-'et kol kēlāy-w*  
 and-ACC all.GEN implements-3MS  
 They brought the tabernacle to Moses, the tent and all its implements.

In each example, it is important to recognise that the coordinated nouns that make up the appositive are together equivalent to the anchor. This is rather self-evident when one remembers that apposition involves a secondary proposition about the predicational relationship between the anchor and its appositive.

The secondary proposition of (46) is made explicit in (48). It takes coordination to make a proper statement (48a). Leaving out either of the appositive conjuncts results in ungrammaticality (48b)–(48c).

(48a) The depot cities are Pithom and Raamses.

(48b) \*The depot cities are Pithom.

(48c) \*The depot cities are Raamses.

Similarly, *the tabernacle* in (47) is not equivalent either to *the tent* or to *all its implements*, but to both *the tent and all its implements*, so coordination of the NPs is required.

<sup>15</sup> For other examples, see Gen 1:16; 2:25; 17:12; 27:3; 34:2; 40:5 46:8; 48:1, 13, 15, 16; Exod 25:9; 28:41; 29:9; Lev 10:1; 16:8; Num 25:8; 31:6; 34:17; Deut 22:22; 25:11; 30:1.

<sup>16</sup> For other examples, see Gen 31:39; 41:10; Exod 35:34; Lev 2:4; 14:31; Num 22:18; 24:13; 31:14, 48; 35:7; Deut 3:25; 4:28; 11:14; 12:27; 22:9, 11; 28:36, 64.

Both examples of coordinate-complex appositives in (46)–(47) also involve cases of extraposition—the “heavy” appositive is placed at the end of the clause, separated from the anchor. This construction is superficially similar to some coordination examples that involve stripping (see §5.3.3). Nevertheless, one easily notices the syntactic and semantic differences when comparing an example of a coordinate-complex appositive (47) and an example of stripping (49) side-by-side.

(47) וַיָּבִיאוּ אֶת־הַמִּשְׁכָּן אֶל־מֹשֶׁה אֶת־הָאֹהֶל וְאֶת־כָּל־כֵּלָיו (Exod 39:33)  
They brought the tabernacle to Moses, the tent and all its implements.

(49) [וְגַם אֶת־לֹט אָחִיו וְרֵכֶשׁוֹ הַשֵּׁיב] וְגַם אֶת־הַנְּשִׁים וְאֶת־הָעַם׃ (Gen 14:16)  
wə-ḡam 'eṭ lōṭ 'āhî-w û-rəḳūš-ô hēšîḇ  
and-also ACC Lot brother-3MS and-possession-3MS return.PFV.3MS  
wə-ḡam 'eṭ han-nāšîm wə-'eṭ hā'ām  
and-also ACC ART-women and-ACC ART-people  
Both Lot his brother and his possessions he returned, [and also the women and the people; he returned \_\_\_\_i].

Regarding the syntax, the coordinate-complex appositive is not introduced with a *waw* (47), while the coordinate-complex remnant in (49) is.<sup>17</sup> Regarding the semantics, the appositive conjuncts offer a restatement of the anchor in (47), while in stripping (49) the conjuncts in the elided clause, *the women and the people* (of Sodom and Gomorrah [see Gen 14:11–12]), are distinct from the conjuncts in the base clause, *Lot and his possessions*.

When, however, the appositive conjuncts are contiguous to their anchor, there is syntactic ambiguity between apposition and final coordination. In these cases, the constructions are disambiguated by prosody and semantics. Semantically, the question is, does the first element present an entity distinct from the second two (final coordination), or is it a categorial entity that subsumes the second two (apposition)? Prosodically, an anchor is

<sup>17</sup> Example (49) also uses ׀ “also” to introduce the remnant, but this is not necessary feature to license stripping. In fact, most BH stripping examples do not use ׀ (see §5.3.3), so the point still stands that a *waw* alone distinguishes between stripping and coordinate-complex appositives.

separated from the appositive conjuncts with a break, while there is usually no prosodic break for final coordination, because the structure does not allow for sub-constituency.

Looking at some examples, both (50) and (51) show syntactic ambiguity, but both their prosody and semantics argue in favour of them involving apposition.

(50) וְעַתָּה שְׂאֵ-נָא כְלֵי תְלִיךָ וְקִשְׁתְּךָ (Gen 27:3)  
 wə-‘attā šā’ nā’ kēlē-kā telyə-kā wə-qašte-kā  
 and-now pick.up.IMP.2MS please implements-2MS quiver-2MS and-bow-2MS  
 “And now, pick up your implements, your quiver and your bow.”

(51) לֹא תִלְבַּשׁ שְׂעֵטָנוּ צִמְרֵן וּפְשָׁתִים יַחְדָּו: (Deut 22:11)  
 lō’ tīlbaš ša’atnēz šemer û-pīštīm yaḥdāw  
 NEG wear.IPFV.2MS mixed.fabric wool and-linen together  
 “You shall not wear mixed fabric, wool and linen together.”

In both (50) and (51), a *zaqef qaton* marks a prosodic break between the anchor and the appositive conjuncts. Moreover, the anchor in each example is a type of noun that can encompass the appositive conjuncts. In (50), the anchor כְּלֵי “implements” is plural and is elsewhere associated with weapons.<sup>18</sup> In (51), the exact meaning of the anchor שְׂעֵטָנוּ “false/mixed fabric” is uncertain (HALOT 1994:1610–1611), but it can be treated as a singular noun that describes a complex whole. Indeed, it functions elsewhere as the appositive to the anchor בְּגָד כְּלָאִים “clothing of two kinds” (Lev 19:19).

A more ambiguous example occurs in (52). Is *the commandment* listed in parallel to *the statutes and the judgements* (final coordination), or is *the commandment* a term that subsumes *the statutes and the judgements* (apposition)?

<sup>18</sup> In one instance, YHWH frightens the camp of Aram before battle (2 Kgs 7:6), and the men throw their clothes and כְּלֵי as they run away (7:15). There is a common phrase נֹשֵׂא כְלֵי (lit. “one who carries implements”) that often refers to an armorbearer who fights (Judg 9:54; 1 Sam 14:13, 14; 31:4, 5; 2 Sam 18:15; 1 Chron 10:4, 5). Other phrases even more strongly connote weaponry: כְּלֵי מִלְחָמָה “implements of battle” (Deut 1:41; Judg 18:11, 16, 17; 1 Sam 8:12; 2 Sam 1:27; Jer 21:4; Ezek 32:27; 1 Chron 12:34) and כְּלֵי מוֹת “implements of death” (Ps 7:14).

- (52) וְזֹאת הַמִּצְוָה הַחֻקִּים וְהַמִּשְׁפָּטִים אֲשֶׁר צִוָּה יְהוָה אֱלֹהֵיכֶם לְלַמֵּד אֶתְכֶם  
 (Deut 6:1)  
*wə-zō ’t ham-mišwā ha-ḥuqqîm wə-ham-mišpāṭîm ’āšer*  
 and-this ART-commandment ART-statutes and-ART-judgments that  
*šiwwâ yhwḥ ’ēlōhê-kem lə-lammēd ’et-kem*  
 command.PFV.3MS YHWH God-2MP to-teach.INF ACC.2MP  
 “And this is the commandment, the statutes, and the judgments that YHWH  
 your God has commanded to teach you.”

The prosody indicated by the *te’amim* is uncertain with a *rebia* marking the first element and a *zaqef qaton* marking the third element. Usage of the terms elsewhere is more decisive.

Three arguments favour a final-coordination analysis for (52). First, when these three terms are conjoined elsewhere in Deuteronomy, a *waw* separates each of the elements (5:31; 7:11), which would require viewing them as separate entities.<sup>19</sup> Second, the clause וְזֹאת הַמִּצְוָה “This is the commandment” in 6:1 is parallel to the clause אֵלֶּה הַחֻקִּים וְהַמִּשְׁפָּטִים “These are the statutes and rules” in 12:1. This suggests that chapters 6–11 explicate *the commandment*, and chapters 12–26 explicate *the statutes and judgments* (Block 2012:176–177). Third, in support of the previous point, the term הַמִּצְוָה “the commandment” is directly linked with the command to love God with all (6:4–5; cf. 11:22; 30:10–11), which shapes the entire unit of 6:4–8:20 (DeRouchie 2007).

### 7.3.5 Coordinated Appositives

In the previous sub-section, we saw that a *waw* is used in apposition examples wherein there is a single appositive made up of a coordinate NP. In these examples, the appositive conjuncts consistently have different referents. We could predict, therefore, that coordination is never employed for examples of multiple co-referential appositives. And, for at least one class of

<sup>19</sup> While some manuscripts and the Samaritan Pentateuch lack the *waw* in Deut 5:31; 7:11, it is also true that some manuscripts, the LXX, and Syriac show evidence of the *waw* in Deut 6:1. I believe the lack of uniformity in the use of *waw* is best explained if the three terms present separate entities, in which case there is no meaningful difference between a multiple-coordination structure and final-coordination structure for this list of three conjuncts (see §5.5).

apposition data, we find that the appositives are never joined by *waw*: when one of the appositives is a proper noun (53).<sup>20</sup>

- (53) וַיֹּאמֶר אֲנִי בְנִי בְכֹרֶךָ עֵשָׂו: (Gen 27:32)  
*wayyō'mer 'ānī bīnā-kā bəḵōrā-kā 'ēsāw*  
 say.WCIPFV.3MS I.NOM son-2MS firstborn-2MS Esau  
 He said, “I am your son, your firstborn, Esau.”

The proper noun *Esau* is an identifying appositive. Coordinating *firstborn* and *Esau* would require two different referents, which would result in a semantic anomaly with them standing in apposition to the singular anchor *your son*. Hence, co-referential appositives consisting of at least one proper noun are never joined by *waw*.

Even co-referential appositives that are appellations, such as (54)–(55), are almost always iterated without the use of *waw*.<sup>21</sup>

- (54) וַיַּעַל עַל-גִּזְזֵי צֹאנֹהוּ הוּא וְחִירָה רֵעֵהוּ הַעֲדִלְמִי תַמְנָתָה: (Gen 38:12)  
*wayya'al 'al gōzāzē šō'n-ō hū' wə-ḥîrā*  
 ascend.WCIPFV.3MS on shearers.GEN flock-3MS he.NOM and-Hirah  
*rē'ē-hū hā-'ādūllāmī timnāt-ā*  
 friend-3MS ART-Adullamite Timnah-LOC  
 He went up to the shearers of his flock, he and Hirah, his friend, the Adullamite, to Timnah.

- (55) וַיִּקַּח תֶּרַח אֶת-אַבְרָם בְּנוֹ וְאֶת-לוֹט בְּן-הָרָן בְּן-בְּנוֹ (Gen 11:31)  
*wayyiqqah terah 'et 'abrām bən-ō wə-'et lôṭ ben*  
 take.WCIPFV.3MS Terah ACC Abram son-3MS and-ACC Lot son.GEN  
*hārān ben bən-ō*  
 Haran son.GEN son-3MS  
 Terah took Abram his son and Lot, the son of Haran, the son of his son.

Theoretically, the appositives could be joined by *waw*, since there would be nothing unique about coordinating multiple titles in attribution to the same person. Nevertheless, the consistent pattern is to iterate multiple appositives, and to use *waw* only to form a single

<sup>20</sup> For other examples, see Exod 7:4; 18:6; 34:23; Num 34:22, 23, 24, 25, 26, 27, 28.

<sup>21</sup> For other examples, see Gen 14:13, 22; 16:3; 21:4; 24:2; 25:12; 36:3, 18; 37:36; 43:29; Exod 3:1; 4:14; 6:7, 23; 15:20; 18:1; 29:38; Lev 14:10; Num 11:28; 18:2; 21:1; 22:4, 10; 25:14, 15; 26:1; 27:18; 28:9; 32:12.

appositive from nouns that have different referents in order to agree with a plural anchor or with an anchor that refers to a complex whole.

What we have so far is a sharp contrast regarding whether a *waw* is used in cases of apposition. The contrast appears to reside in the anchor itself. If the anchor is plural (46) or refers to a complex whole (47), there is a single appositive that consists of a coordinate NP. If, however, the anchor is singular (54), multiple appositives are iterated into the structure without the use of *waw*.

(46) וַיְבִינּוּ עָרֵי מִסְכְּנוֹת לְפָרְעֹה אֶת־פִּתּוֹם וְאֶת־רַעַמְסֵס: (Exod 1:11)  
They built depot cities for Pharaoh, Pithom and Raamses.

(47) וַיָּבִיאוּ אֶת־הַמִּשְׁכָּן אֶל־מֹשֶׁה אֶת־הָאֹהֶל וְאֶת־כָּל־כֵּלָיו (Exod 39:33)  
They brought the tabernacle to Moses, the tent and all its implements.

(54) וַיַּעַל עַל־גִּזְזֵי צֹאנוֹ הוּא וְחִירָה רֵעֵהוּ הַעֲדִלְמִי תַמְנָתָה: (Gen 38:12)  
He went up to the shearers of his flock, he and Hirah, his friend, the Adullamite, to Timnah.

In (46)–(47), it is only when the appositive conjuncts are taken together that they are equivalent to the anchor. In (54), each of the appositives is co-referential with the anchor.

Another way to show the contrast between the appositions is by comparing the secondary predications. When the anchor is singular (54), the multiple appositives entail two distinct predications (56).

(56a) Hirah is his friend.

(56b) Hirah is the Adullamite.

When the anchor is plural (46), the multiple appositives entail just one predication. Making a predication between the anchor and just one of the conjuncts is ungrammatical, so coordination is necessary.

There is, however, a small, uniform class of exceptions. It turns out that co-referential appositives can be coordinated, if the appositives consist of construct chains with identical nouns in construct state but different nouns in absolute state, illustrated in (57) and (58).<sup>22</sup>

- (57) וְשֵׁם אִשְׁת־נְחוֹר מִלְכָּה בַת־הָרָן אִבְי־מִלְכָּה וְאָבִי יִסְכָּה: (Gen 11:29)  
*wə-šēm 'ēšet nāhôr milkâ baṭ hārān 'ābî*  
 and-name.GEN wife.GEN Nahor Milcah daughter.GEN Haran father.GEN  
*milkâ wa-'ābî yiskâ*  
 Milcah and-father.GEN Iscah  
 And the name of Nahor's wife was Milcah, the daughter of Haran, the father of Milcah and the father of Iscah.

- (58) אֲנִי יְהוָה אֱלֹהֵי אַבְרָהָם אָבִיךָ וְאֱלֹהֵי יִצְחָק (Gen 28:13)  
*wə-'āšbî 'ā-kā b-yhwh 'ēlōhé haš-šāmayim wē-'lōhé*  
 and-adjure.IPFV.1CS-2MS in-YHWH God.GEN ART-heaven and-God.GEN  
*hā-'āreš*  
 ART-earth  
 “I am YHWH, the God of Abraham your father and the God of Isaac.”

Similar to the case of iterated co-referential appellations in (54), the coordinated co-referential appellations in (58) entail two predications (59).

(59a) YHWH is the God of Abraham.

(59b) YHWH is the God of Isaac.

Since co-referential appellations can be iterated (54)–(55) or coordinated (57)–(58), and in every case the apposition entails two predications, it may seem as if *waw* is in free variation in structures with multiple appositives.

Yet, it is striking that the coordination exceptions are limited to cases of appositives that consist of construct chains with identical nouns in construct state but different nouns in absolute state. Examples (55) and (57) appear to be equivalent cases with repeated identical nouns in construct state, but the appositives are iterated in (55) and coordinated in (57).

- (55) וַיִּקַּח תֵּרַח אֶת־אַבְרָם בְּנוֹ וְאֶת־לוֹט בְּנֵי־הָרָן בְּנֵי־בְנוֹ (Gen 11:31)  
 Terah took Abram his son and Lot, the son of Haran, the son of his son.

<sup>22</sup> For the other examples, see Gen 14:13; 24:3.

- (57) וְשֵׁם אִשְׁת־נְחוֹר מִלְכָּה בַת־הָרָן אֲבִי־מִלְכָּה וְאֲבִי יִסְכָּה: (Gen 11:29)  
 And the name of Nahor's wife was Milcah, the daughter of Haran, the father of Milcah and the father of Iscah.

Upon a more careful inspection, one notices that the nouns in absolute state are different in (57), but synonymous in (55), because *Haran* is *his (Terah's) son*.

This observation provides the first motivation for coordinating the co-referential appositives. While each title refers to the same person, in which sense they are co-referential, coordination makes it explicit that both labels apply to the same person. Thus, there is a symmetry between the coordination examples of (57) above and (46), which is copied below.

- (46) וַיְבִנוּ עָרֵי מִסְכְּנוֹת לְפָרְעֹה אֶת־פִּתּוֹם וְאֶת־רַעַמְסֵס: (Exod 1:11)  
 They built depot cities for Pharaoh, Pithom and Raamses.

Just as *depot cities* in (46) is equivalent to both *Pithom and Raamses*, so in (57) *Haran* is both *the father of Milcah and the father of Iscah*. In (46), a combination of entities equals the anchor, and in (57) a combination of titles describes the anchor.

The second motivation for coordinating the co-referential appositives is to clarify that the labels do not apply to different people. Compare the example of embedded appositives in (11) to that of coordinated appositives in (57).

- (11) וַתִּקְרְבֵנָה בָּנוֹת צִלְפַּחַד בַּת־חֶפְרַיִם בְּנוֹת־גִּלְעָד בְּנוֹת־מַכִּיר בְּנוֹת־מְנַשֶּׁה לְמִשְׁפַּחַת מְנַשֶּׁה בְּנוֹת־יוֹסֵף (Num 27:1)  
 Then approached the daughters of [Zelophehad, the son of [Hepher, the son of [Gilead, the son of [Machir, the son of Manasseh according to the families of [Manasseh, the son of Joseph]]]]].

- (57) וְשֵׁם אִשְׁת־נְחוֹר מִלְכָּה בַת־הָרָן אֲבִי־מִלְכָּה וְאֲבִי יִסְכָּה: (Gen 11:29)  
 And the name of Nahor's wife was Milcah, the daughter of Haran, the father of Milcah and the father of Iscah.

I suggest that without a *waw* in (57), it would read as embedded, rather than stacked, appositives. Someone can only be one father. By repeating *father* in construct state, it would sound like there are two different fathers. It would sound like Milcah is the father of Iscah,

even though *Milcah* is a manifestly feminine noun.<sup>23</sup> To clarify that Haran, who is the father of Milcah, is also the father of Iscah, the author coordinates the appellations.

### 7.3.6 Summary

We have seen that three conspicuous features of appositives naturally flow out of an adjunction analysis. First, since adjuncts are inserted into a phase and spelled-out without being merged into the structure, an appositive is outside the scope of negation or a temporal marker in the main clause (§7.3.1).

Second, since adjuncts contribute nothing to structure-building, multiple adjuncts may be introduced in a single phase, and they may be linearised immediately after the element they modify or at the edge of the phase in Spell-Out; this often generates an anchor and appositive that are non-contiguous (§7.3.2). The non-contiguity may be due to flexible linearisation of multiple adjuncts, extraposition of the appositive, or fronting the anchor to a clause-initial position for Topic or Focus.

Third, since adjuncts are not merged into the syntactic structure but are “left dangling,” there are many targets for concatenation. As adjuncts are iterated during a phase of structure-building (§7.3.3), they may all concatenate with the same visible argument (stacked appositives), each appositive may concatenate with another adjunct in the derivational workspace (embedded appositives), or the appositives may take a combined approach (stacked-and-embedded appositives).

We have also seen two distinct apposition constructions that use *waw*. First, we looked at examples of a coordinate-complex appositive (§7.3.4), a single appositive that is made up of a coordinate NP. Second, we looked at examples of coordinated appositives (§7.3.5),

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<sup>23</sup> Similarly, in (58), without the *waw* it would sound like Abraham is the God of Isaac. In fact, it would probably read even more strongly as an example of embedded appositives than (57), since אֱלֹהֵי אֱבְרָהָם matches אֱלֹהֵי יִצְחָק in gender.

multiple appositives that are each co-referential with the anchor and are conjoined by *waw*. Usually, co-referential appositives are iterated as stacked appositives, and are coordinated only if they could be misinterpreted as embedded appositives. Critically, *waw* maintains the same conjoining function in these two different constructions. In coordinate-complex appositives (§7.3.4), the combination of entities equals the anchor, and in coordinated appositives (§7.3.5), the combination of titles describes the anchor.

## **7.4 Coordination of Co-referential Phrases**

The standard view among Hebraists is that a *waw* that conjoins co-referential phrases has a different function than its prototypical use as a coordinator. In this section, I will first provide an overview of previous research in Biblical Hebrew on the subject (§7.4.1). Then I will argue that such instances of *waw* do still mark syntactic coordination, which should be viewed as distinct from apposition (§7.4.2).

### **7.4.1 Overview of Previous Research in Biblical Hebrew**

The point is often made in the BH literature that *waw* can appear before an appositive. This is traditionally called the “explicative” or “epexegetical” use of *waw*, and simply according to journal articles devoted solely to this topic (Brongers 1978, Mastin 1984, Wilton 1994, Hornkohl 2009, Thiessen 2009, Baker 1980, 2013), there are purported to be at least 70 such examples in the Hebrew Bible.<sup>24</sup> Furthermore, standard lexica (BDB 1977, Clines 1993, HALOT 1994) and grammars (GKC §154a, IBHS §39.2.4, WHS §434, BHRG §40.23.4.2) all affirm the explicative use of *waw*, at least in some sense.

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<sup>24</sup> Gen 1:14; 4:4; 13:8; Exod 24:12; 25:12; 27:14; Lev 2:13; 14:9; Num 27:21; Deut 23:1; 32:28, 30, 36; 33:23; Josh 2:1; Judg 6:25; 7:5, 22; 17:3; 1 Sam 17:40; 28:3; 2 Sam 3:29; 7:11; 14:6, 14; 20:14; 2 Kgs 8:9, 36; 14:9; Isa 17:8; 32:7; 42:12; 59:9, 20; 66:2; Jer 17:10; 45:4; 46:25, 26; Ezek 3:15; Amos 3:11; 4:10; 5:20; Zech 9:9; Mal 1:11; 3:1; Ps 74:11; 79:13; 85:9; 89:38; 100:3; 109:20; Job 19:24; 34:35; Prov 3:12; 30:16; Lam 3:26; Dan 1:3; 4:10; 6:29; 8:10; Ezra 6:9, 21; 8:18; Neh 1:10; 8:13; 10:29; 1 Chron 5:26; 21:12; 28:21; 2 Chron 29:27.

While there is broad agreement that *waw* occurs in apposition constructions, there is no consensus for the function of *waw* in such cases. Some have understood the *waw* itself to signal apposition. Baker (1980:132) says that the *waw* “marks a more precise definition.”<sup>25</sup> Similarly, Wilton (1984:125) says that at the phrase level there may be “an intervening *waw* as an explanatory device,” and at the clause level “the explicative *waw* has epexegetical force where it emphasises or paraphrases the previous clause.” Such claims seem to misplace the semantics of the phrasal/clausal constituents onto the conjunction itself. Steiner (2000:265) rightly responds, “The meaning attributed to –1 really resides in the syntactic construction.” That is, to the degree that *waw* occurs in apposition, it is not determined by a special use of *waw*, but by analysing the semantics of the conjoined phrases.

Others are more nuanced in their description. Waltke and O’Connor write, “*Waw* may stand before clauses which serve to clarify or specify the sense of the preceding clause” (IBHS §39.2.4). That is, the *waw* itself does not signal clarification or specification, but the clause that it stands before clarifies or specifies the previous clause. Similarly, Hornkohl (2009:78) writes, “One of [*waw*’s] many functions is to serve to introduce an explanation, specification, or recapitulation of the immediately preceding word or phrase.” Both accounts take the semantics of apposition away from *waw* and place it on the phrase or clause. Nevertheless, stating *waw*’s function as “standing before” or “introducing” is vague.

Others are more clear and simply say that *waw* sometimes does not have a function. Steiner (2000:265) says that a *waw* in certain cases “is superfluous,” and once it “is ignored,

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<sup>25</sup> Baker has expressed a different view more recently in his encyclopedia entry on “explicative *waw*.” He is willing to affirm that *waw* “indicates a syntactical relationship of conjunction” of two elements, and that “the exact nature of their relationship must be determined semantically, determining what the meaning relationship between the two conjoined elements is through a close reading, rather than syntactically assuming that the conjunction itself carries the meaning” (2013:891). He still affirms that *waw* can have an explicative function, but now he explicitly states, “An explicative function cannot be determined solely on the basis of the presence of the conjunction in question” (2013:891).

we have apposition.” Similarly, Thiessen says that his interpretation of Ezra 6:21 stands “if the *waw* here is meaningless and the clause merely stands in apposition to the clause which precedes it” (2009:73, n. 40). But I believe that such views of *waw* being sometimes “superfluous” or “meaningless” should be endorsed only as a last resort.

As has already been discussed in §7.2.1, Holmstedt and Jones (2017) advance the idea that non-restrictive apposition (NRA) is a specifying type of coordination. Under this framework, they view *waw* being used sometimes as “an appositional signal” (2017:49). Holmstedt himself, however, no longer considers NRA to be a type of coordination. Instead, he views coordination and NRA as distinct constructions under the umbrella category of *nonsubordination* (2019b, 2020). While *waw* is often used as a prototypical coordinator, it can be used as a more general nonsubordinator to join an appositive to an anchor in a way that “can be described as naming, designating, reformulating, describing, exemplifying, or providing a particular instance” (Holmstedt 2019b:626). In the next section, we will need to consider the nature of coordination more closely to evaluate Holmstedt’s claims.

Finally, there are alternative views on the function of *waw* between parallel poetic lines. Representing one view, Brongers (1978) assumes that the *waw* cannot be conjunctive when the lines are synonymous. Instead, he says that *waw* compensates for a deleted element, or is used in an emphatic or explicative sense. Miller (2007b) challenges his central assumption by pointing to patterns of verb-gapping between poetic lines. While Indo-European languages like English require the non-gapped constituents to form a disjoint set, BH allows coordinated non-gapped constituents to be co-referential (cf. §5.3.2). Thus, she concludes, “Brongers’ argument, then, concerning the non-conjunctive status of *waw* between synonymous parallel lines likely reflects the linguistic judgments of a native speaker of a European language, but bears no weight for the syntax of Biblical Hebrew” (2007b:49).

Representing the other view, Miller (2007b) looks specifically at cases of verb gapping in the book of Isaiah. Crucially, she notes that “verb gapping only operates across coordinate structures” (2007b:49), and she goes on to ask what syntactic factors influence overt coordination. She concludes that a *waw* is more likely, first “when it is needed for cognitive processing concerns as a means to delimit or demarcate the two conjuncts,” and second “when the matched gapped lines are subordinate to a larger structure” (2007b:60). This second motivation is very similar to what was shown regarding coordinated appositives (§7.3.5): co-referential appositives that are conjoined by *waw* to signal that the combination of titles describes the anchor when it would otherwise appear that they apply to different entities. Thus, there is a motivation for why co-referential phrases/clauses are coordinated in BH.

#### **7.4.2 Distinction Between Coordination and Apposition**

In blurring the line between apposition and coordination, a prevailing view has arisen that *waw* has an explicative use. So far, we have seen three reasons for maintaining a distinction between apposition and coordination. First, it has been shown that apposition is not a type of coordination (§7.2.2.1), which is a complementation relationship (§3.2.2); rather, apposition is a type of parenthesis (§7.2.2.2) with an adjunction relationship (§7.2.2.3). Second, there is a distinct, and very narrowly defined, motivation for coordinating co-referential appositives (§7.3.5) rather than iterating them into the structure (§7.3.3). Third, coordinated structures allow for non-elided constituents to be co-referential to the corresponding constituents in the base clause (§5.3.2–3). One cannot simply assume a non-conjunctive use of *waw* whenever it joins co-referential or semantically-overlapping phrases.

The difference between apposition and coordination is that apposition expresses an identity relationship between the anchor and the appositive, while coordination joins

conjuncts to create a “syntactically, phonologically and semantically ... richer constituent than the conjuncts taken individually” (Chaves 2007:19). The two constructions are by no means diametrically opposed, yet they are distinct. Regarding coordination, it is a question of how different the two items must be in order to make a semantically richer constituent when they are joined together.

In this section, I question the prevailing view that *waw* has an explicative use. My goal is more modest than trying to disprove the view definitively, in which case I would need to show that every proposed instance of an explicative use of *waw* is untenable. Rather, I will respond to many of the most compelling examples of explicative *waw* and show that a conjunctive explanation is justified.

When a *waw* joins two conjuncts, they form a semantically richer constituent together than they would on their own. Even co-referential subjects can be conjoined (60).<sup>26</sup> This is similar to the phenomenon of coordinated co-referential appositives addressed in §7.3.5. In fact, there can even be a coordinated anchor with a singular appositive, as in (61).

- (60) אֱלֹהֵיכֶם וְאֱלֹהֵי אֲבִיכֶם נָתַן לָכֶם מִטְמוֹן בְּאַמְתֵּיחֵיכֶם (Gen 43:23)  
 'ēlōhē-*kem* wē-*lōhē* 'ābī-*kem* nāṭan lā-*kem* maṭmōn  
 God-2MP and-God.GEN father-2MP gave.PFV.3MS to-2MP treasure  
 bə-*amtəḥōtē-kem*  
 in-sacks-2MP  
 “Your God and the God of your father has given you treasure in your sacks.”

- (61) וַיֹּאמֶר יַעֲקֹב אֱלֹהֵי אֲבִי אַבְרָהָם וְאֱלֹהֵי אֲבִי יִצְחָק הֲאֵם הָאֵל אֲמַר אֵלַי  
 (Gen 32:10)  
 wayyō-*mer* ya 'āqōb 'ēlōhē 'āb-*ī* 'abrāhām wē-*lōhē*  
 say.WCIPFV.3MS Jacob God.GEN father-1CS Abraham and-God.GEN  
 'āb-*ī* yiṣḥāq yhwh hā-*ōmēr* 'ēl-*ay*  
 father-1CS Isaac YHWH ART-say.PTCP.MS to-1CS  
 Jacob said, “O God of my father Abraham and God of my father Isaac,  
YHWH who said to me...”

<sup>26</sup> For another example, see Gen 31:42.

In both examples, the co-referential titles are coordinated, but without the risk of implying that they refer to different deities. The singular verb in (60) and singular appositive in (61) ensure that the coordinated phrases have the same referent.

But it is not as though the *waw* is superfluous. In (60), while Joseph’s brothers have acted treacherously toward their father in selling Joseph and faking his death, he declares that God’s provision for them is wrapped up in him also being the God of their father. In (61), as Jacob calls out to God after he has heard the threat of Esau’s coming (Gen 32:6–8), he recalls not only God’s faithfulness towards him but also God’s covenant loyalty towards Isaac and Abraham. In both examples, the speaker uses coordination because only with a combination of the titles can one properly understand the full meaning of God in that situation.

Similar intentionality lies behind why co-referential phrases are coordinated elsewhere. Example (62) is commonly-cited as a case of the explicative *waw* (BDB 1977, Hornkohl 2009, Baker 1980, 2013), but the PPs ought to be understood as coordination, not apposition, in order to communicate that Abel offered the best of the best.

- (62) וְהֵבִיל הַבֵּיא גַם־הוּא מִבְּכֹרֹת צֹאֲנוֹ וּמִחֶלְבֵי הֵן (Gen 4:4)  
*wə-heḇel hēbî’ gam hū’ mib-bəḵōrōt šō`n-ō*  
 and-Abel bring.PFV.3MS also he.NOM from-firstborn.FP.GEN flock-3MS  
*û-mē-ḥelḇē-hen*  
 and-from-fat-3FP  
 And Abel himself also brought from the firstborn of his flock and from their fat.

The feminine plural pronominal suffix on *fat* refers to the feminine plural noun *firstborn*. When Abel goes to his flock, he chooses from not only the best animals, the firstborn, but also from the best part of the best animals, their fat, as an offering for YHWH. Without the *waw*, the resulting apposition structure would merely state that Abel’s bringing of the firstborn was his taking of their fat. It would no longer communicate as forcefully the superlative nature of his offering.

Similar to (62), most of the purported examples of explicative *waw* involve a subset relation between the conjuncts. With some regularity, BH coordinates a general phrase with a following (63)<sup>27</sup> or preceding (64)<sup>28</sup> list of particulars.

- (63) וְהִגְלָה אֶת-כָּל-יְרוּשָׁלַם וְאֶת-כָּל-הַשָּׂרִים וְאֶת | כָּל-גְּבוּרֵי הַחַיִל עֲשִׂיתָ אֶלְפִים  
 גּוֹלָה וְכָל-הַחַרְשׁ וְהַמְסַגֵּר (2 Kgs 24:14)  
*wə-higlā 'et kol yərûšālaīm wə-'et kol has-šārīm*  
 and-deport.PFV.3MS ACC all.GEN Jerusalem and-ACC all.GEN ART-officers  
*wə-'ēt kol gibbôrê ha-ḥayil 'āšeret 'ālāpīm*  
 and-ACC all.GEN warriors.GEN ART-strength ten.GEN(qere) thousands  
*gólê wə-kol he-ḥārāš wə-ham-masgēr*  
 captive.PTCP.MS and-all.GEN ART-craftsman and-ART-metalworker  
 He deported all of Jerusalem and all of the officers and all of the warriors of strength, ten thousand captives, and every craftsman and metalworker.

- (64) וְהָיָה בַיּוֹם הַשְּׁבִיעִי יִגְלַח אֶת-כָּל-שֵׁעָרוֹ אֶת-רֹאשׁוֹ וְאֶת-זָקְנוֹ וְאֵת גְּבַת עֵינָיו  
 וְאֶת-כָּל-שֵׁעָרוֹ יִגְלַח (Lev 14:9)  
*wəhāyā ḥay-yôm haš-šəbī'î yaḡallah 'et kol*  
 be.WCPFV.3MS in.ART-day ART-seventh shave.IPFV.3MS ACC all.GEN  
*šə'ār-ô 'et rō'š-ô wə-'et zaqān-ô wə-'ēt gabbōt*  
 hair-3MS ACC head-3MS and-ACC beard-3MS and-ACC curves.GEN  
*'ēnāy-w wə-'et šə'ār-ô yaḡallēah*  
 eyes-3MS and-all.GEN hair-3MS shave.IPFV.3MS  
 “And it shall be that on the seventh day he shall shave all his hair off his head and his beard, and his eyebrows—and all his hair he shall shave.”

Holmstedt (2019:625–626) regards (63) as an example of apposition with *all of Jerusalem* as the anchor and the other phrases as forming the appositive. The *waw* that marks the initial appositive *all of the officers* is being used not as a coordinator but as a more general nonsubordinator, because the particular phrases are a logical subset of the general phrase. Wilton (1994:125–126) makes the same case for (64). The only difference is that the general action is stated last, while the particulars are presented first.

<sup>27</sup> Baker (2013:890) calls this “specification.” For the other examples, see Josh 2:1; 2 Sam 20:14; Isa 17:8; Jer 46:26; Ezra 6:9.

<sup>28</sup> Baker (2013:890) calls this “globalization.” For the other examples, see Num 27:21; Judg 7:22; Jer 45:4; Mal 1:11; 1 Chron 28:21.

While it is true that (63)–(64) give a list of particulars that form a logical subset of the general phrase, one can still maintain a coordination analysis. As long as the particulars do not exhaust what is entailed by the broader term, the general phrase can be coordinated with the particulars. Neither (63) nor (64) present an exhaustive list of what is entailed by *all of Jerusalem* or *all his hair*, respectively. In (63), the narrator goes on to clarify in the same verse, “None remained except the poor of the people of the land” (2 Kgs 24:14), which means that not everyone in Jerusalem were deported. The officers, warriors, and tradesmen are a non-exhaustive list of the valuable people who were taken from the land. Similarly in (64), the hair on the head and face do not exhaust what is represented in the final call to “shave all his hair,” for the unclean person must also “wash his clothes and bath his flesh in water” (Lev 14:9). This seems to imply that the final call to shave entails the whole body, including the armpits and pubic area, something Wilton (1994:126) acknowledges.

When there is an exhaustive set-subset relation between the general and particular phrases, however, the elements must form an apposition relationship. In (65), the particular names form a coordinate anchor, and the general phrase is the appositive.

- (65) וְשֵׁם וְחָם וְיָפֶֿתֿ בְּנֵי־נֹחַ (Gen 7:13)  
 wə-šēm wə-ḥām wā-yeḫēṯ bənê nōaḥ  
 and-Shem and-Ham and-Japheth sons.GEN Noah  
Shem and Ham and Japheth, the sons of Noah.

Since the names *Shem and Ham and Japheth* are an exhaustive list of those who constitute *the sons of Noah*, coordination is not possible, because the two parts would not form a semantically richer constituent. In (63)–(64), on the other hand, something is entailed by the

general phrase that is not explicated by the particular phrases, so coordination can form a richer constituent.<sup>29</sup>

In the next example (66), Hornkohl (2009) relies on the explicative use of *waw* to argue that the two descriptions refer to the one group sent home. While I agree with his interpretation of their being two descriptions of the one group, I prefer an alternative syntactic analysis wherein an appeal to explicative *waw* is unnecessary.

- (66) כָּל אֲשֶׁר-יִלֹּק בְּלִשׁוֹנוֹ מִן-הַמַּיִם כַּאֲשֶׁר יִלֹּק הַכֶּלֶב תִּצְיֵג אוֹתוֹ לְבָד וְכֹל  
 אֲשֶׁר-יִכְרַע עַל-בְּרִכָּיו לְשִׁתּוֹת: (Judg 7:5)  
*kōl 'āšer yālōq bi-lšōn-ō min ham-mayim ka'āšer*  
 all that lap.IPFV.3MS in-tongue-3MS from ART-water just.as  
*yālōq hak-keleḅ taššîḡ 'ōt-ō laḅād wə-kōl 'āšer*  
 lap.IPFV.3MS ART-dog set.IPFV.2MS ACC-3MS aside and-all that  
*yikra' 'al birkāy-w li-štōt*  
 bend.IPFV.3MS on knees-3MS to-drink.INF  
 “As for everyone who laps with his tongue from the water as a dog laps, you shall set him aside, [and everyone who bends down on his knees to drink, you shall set him aside.]”

The initial phrase is left-dislocated, and hence a Topic, because it is resumed in the main clause by the pronoun *אוֹתוֹ* “him” (Holmstedt 2014). The second phrase is an example of stripping, because it is a one-constituent phrase separated from the first phrase, marking contrastive Focus with an additive interpretation (see §5.3.3). Each person to be set aside and sent home is not only one who laps like a dog but also one who bends down on his knees. The *waw* conjoins the two descriptions of the same group, a view espoused by the 11th century rabbi Rashi.<sup>30</sup>

<sup>29</sup> This is more clearly the case when the particular phrases are presented before the general phrase, like in (64). In these instances, the coordinated general phrase communicates “and everything else (in the category).” When the general phrase is stated first, however, as in (63), it is more difficult to see how stating some of the particulars makes the general phrase a semantically richer constituent. However, by not equating *all Jerusalem* with the officers, warriors, and tradesmen in (63), the author can imply that the Babylonian king exiled more than those three types of people and also go on to state that he let the poor remain on the land.

<sup>30</sup> See his commentary on Judg 7:5. I accessed it at [https://www.sefaria.org/Rashi\\_on\\_Judges.7.5.1?lang=bi&with=all&lang2=en](https://www.sefaria.org/Rashi_on_Judges.7.5.1?lang=bi&with=all&lang2=en).

Other examples are more indeterminate. Both (67)<sup>31</sup> and the oft-cited (68)<sup>32</sup> are presented as evidence for the explicative *waw*, but such an interpretation is certainly not required.

(67) וַיֵּלֶךְ חֲזַאֵל לִקְרַאתוֹ וַיִּקַּח מִנְתָּה בְיָדוֹ וְכָל-טוֹב דְּמִשְׁקֵי מַשָּׂא אַרְבַּעִים גָּמַל  
 (2 Kgs 8:9)  
 wayyēlek ḥāzā'ēl li-qrā' t-ô wayyiqqah minhâ  
 walk.WCIPFV.3MS Hazael to-meet.INF-3MS take.WCIPFV.3MS gift  
 bə-yāq-d-ô wə-kol tûb dammešeq maššā' 'arbā'im gāmāl  
 in-hand-3MS and-all.GEN best.GEN Damascus load.GEN forty camel  
 Hazael went to meet him, and he took a gift in his hand, [and all the best of  
Damascus, a load of forty camels; he took \_\_\_\_\_ i in his hand].

(68) וַיִּשֶׂם אֹתָם בְּכֵלֵי הַרְעִים אֲשֶׁר-לוֹ וּבִלְקוּט (1 Sam 17:40)  
 wayyāsem 'ōt-ām bi-klî hā-rō'im 'āšer l-ô  
 put.WCPFV.3MS ACC-3MP in-vessel.GEN ART-shepherd.PTCP.MP that to-3MS  
 ū-bay-yalqût  
 and-in.ART-pouch  
 And he placed them in the shepherds' vessel that belonged to him and in the  
 pouch.

Example (67) appears to be a case of stripping (see §5.3.3), where the ellipsis remnant *all the best of Damascus* is in contrastive Focus with an additive interpretation. Hazael takes not only a gift (as he was instructed [cf. 2 Kgs 8:8]) to find out news from Elisha, but he also brings forty camels' worth of goods. Apparently, he thought the gift might not be enough to get Elisha talking. His expectation is wrong, however, as Elisha answers his inquiry immediately (8:9–10), and there is no indication that Elisha even takes the gift (8:11–15).

The interpretation regarding (68) is similar. Thiessen (2009:73) expresses a common sentiment: “Clearly David did not set the stones in both his shepherd’s vessel and in his pouch; rather, he set them in his shepherd’s vessel, *that is*, in his pouch.” However, I do not find it so hard to believe that David placed the stones in different bags. Indeed, there may be

<sup>31</sup> See Mastin (1984) and Holmstedt (2019b).

<sup>32</sup> See BDB (1977:252), HALOT (1994:258), Hornkohl (2009), Thiessen (2009), Baker (2013), Holmstedt and Jones (2017), and Holmstedt (2019b).

some strategy to multiple access points for grabbing stones, as someone who fights in close combat may have a small knife strapped to each of his legs. We do not know with David, however, since all he needs to do is retrieve one stone from the vessel to slay the giant (1 Sam 17:49). Another option is that יִלְקוּט could refer to a compartment within the בְּלֵי הָרָעִים.<sup>33</sup> Some of the stones could be in the broader בְּלֵי, or all of the stones could be in the יִלְקוּט section. In either case, coordination of this non-exhaustive sub-set relation between the NPs is legitimate in BH.<sup>34</sup>

One final type of proposal for the explicative *waw* occurs in (69). Hornkohl (2009:79) presents it as evidence, but does not give any commentary. His implicit understanding is that רָמָה is the name of the city where the prophet Samuel was born.<sup>35</sup>

- (69) וַיִּקְבְּרוּהוּ בְרָמָה וּבְעִירוֹ (1 Sam 28:3)  
*wayyiqbərū-hû bā-rāmā û-bə-ʾir-ô*  
 bury.WCIPFV.3MP-3MS in.ART-elevation and-in-city-3MS  
 They buried him in the elevated place, and in his city.

There appear to be several different places with the designation of רָמָה (BDB 1977:928, HALOT 1994:1240–1241). In the book of 1 Samuel, the noun רָמָה is always articular (15x), and it appears to be a location bigger than one city. In 1 Sam 19:18, David comes to Samuel הַרְמָתָה “at Ramah,” and to hide from Saul they choose to dwell בְּנַיֹתָה “in Naioth,” which is

<sup>33</sup> The noun יִלְקוּט is a hapax legomenon, but appears related to the verb לָקַט “to gather, glean.” The Septuagint glosses the phrase וּבְיִלְקוּט with εἰς συλλογήν “in a gathering, collecting” (Liddell and Scott 1901:1455), and the Peshitta uses כַּגְרִיבָה “in his scrip” (Payne Smith 1903:621). Although the exact reference eludes us, it is clear that יִלְקוּט refers to a receptacle of some kind.

<sup>34</sup> The *waw* is not reflected in either the Septuagint or Peshitta, but this is a point of only minor significance. We should not expect that languages will match exactly in what types of elements they coordinate. Indeed, we should not even expect all native speakers of the same language to reflect the same pattern of coordinating certain elements.

<sup>35</sup> If this is indeed the case, then I have no explanation for how to understand the *waw* as conjunctive. The same goes if *Pul* and *Tiglath-pileser* refer to the same person in 1 Chron 5:26, and if *Darius* and *Cyrus* are alternative names for the same individual in Dan 6:29, according to Baker (2013:891). Admittedly, purported cases of explicative *waw* require a fuller treatment, which is outside the scope of this thesis. Of the factors that I have yet to consider is whether diachronic change is a contributing factor (I thank an anonymous examiner for this suggestion).

a place **בְּרָמָה** “in Ramah” (1 Sam 19:19, 22, 23; 20:1). In fact, when Saul comes to Ramah seeking Samuel and David, he comes to **שֵׁכוֹ** “Secu” only to be told that they are at Naioth in Ramah (1 Sam 19:22). It appears there are at least two cities, or at least specific locations, in Ramah, so once again coordination of the non-exhaustive sub-set relation in (69) is quite possible.

### 7.4.3 Summary

In this section, we have seen a rationale for why co-referential phrases may be coordinated. While apposition expresses an identity relationship between the anchor and the appositive, coordination creates a semantically richer constituent out of two (or more) conjuncts. These conjuncts may even have a fair amount of semantic overlap between them.

*Waw* often conjoins co-referential titles and descriptions, and may even place conjuncts that form a set-subset relation into a coordinate relation, provided the particulars do not exhaust the reference of the general phrase. Other purported examples of the explicative *waw* are more indeterminate. I have shown that a conjunctive analysis is possible, but one would need access to native speaker judgments to give a decisive answer.

One cannot assume that a *waw* has an explicative use whenever it joins phrases that have semantic overlap. In fact, this section has shown that *waw* maintains its use as a prototypical coordinator even when it conjoins co-referential or semantically-overlapping phrases. To the degree that *waw* is used in apposition constructions, it is a very infrequent occurrence, and it must be argued for rather than assumed.

### 7.5 Summary

This chapter began by describing a four-piece puzzle concerning the relation between coordination and apposition, and syndeton (the use of *waw*) and asyndeton (the lack of any

formal connector). Coordination seems to be signaled by syndeton (piece #1) but may also occur with asyndeton (piece #2), while apposition seems to be signaled by asyndeton (piece #3) but may also occur with syndeton (piece #4).

The key to solving the puzzle is to realise that there are only three pieces. Syndeton signals coordination, while asyndeton is the unmarked construction. It often occurs within apposition but may also occur in certain coordination constructions: final coordination, overt-and-null coordination, and completely-null coordination. In cases of asyndeton, usually the only cases of syntactic ambiguity concern instances where one *waw* occurs before the third element. In these cases, the constructions are disambiguated by prosody and semantics. Semantically, the question is, does the first element present an entity distinct from the second two (final coordination), or is it the categorial entity that subsumes the second two (coordinated appositives)? Prosodically, an anchor is separated from the coordinated appositives with a break, while there is usually no prosodic break for final coordination, because it does not allow for sub-constituency.

## CHAPTER 8: VERBAL AGREEMENT WITH CONJOINED SUBJECTS

### 8.1 Introduction

In some ways, these last two chapters are applications of the thesis, not part of the thesis proper, which concerns the syntactic structure of coordination and the function of the coordinator and conjuncts. The previous chapter discussed the relationship between apposition and coordination, and this chapter addresses the intersection between verbal agreement and phrasal coordination. In particular, this chapter undertakes the thorny issue of partial agreement: sentences that have conjoined subjects but a singular verb.

Within BH, number agreement on the verb seems to be highly influenced by word order. Thus, a verb preceding the coordinated subjects will usually be singular (1), but a verb following the coordinate complex will often be plural (2).

- (1) וַיֵּצֵא אַבְנֵר בֶּן־נֵר וְעַבְדֵי אִישׁ־בֹּשֶׁת (2 Sam 2:12)  
*wayyēšē' 'abnēr ben nēr wə-'abdē 'iš bōšet*  
go.out.WCIPFV.3MS Abner son.GEN Ner and-servants.GEN Ish-bosheth  
Abner the son of Ner and the servants of Ish-bosheth went out (sg).
- (2) וַיֵּצֵאוּ אֲבִיב בֶּן־זְרוּיָהּ וְעַבְדֵי דָוִד יָצְאוּ (2 Sam 2:13)  
*wə-yô 'āb ben šarūyâ wə-'abdē dāwīd yāšə 'û*  
and-Joab son.GEN Zeruah and-servants.GEN David go.out.PFV.3MP  
And Joab the son of Zeruah and the servants of David went out (pl).

If word order were the sole determining factor, syntax alone could explain partial agreement.

Alas, the situation in BH is not that simple.

Word order is not determinative for verbal agreement, as the following minimal pair shows. The same construction can yield a singular verb (3) or a plural verb (4).

- (3) וַיִּסְמְדוּ אֶהָרֶן וּבְנָיו אֶת־יְדֵיהֶם עַל־רֹאשׁ פֶּרֶן הַחֲטָאֵת: (Lev 8:14)  
*wayyismōk 'ahārōn û-bānā-yw 'et yadê-hem 'al rō's*  
 lay.WCIPFV.3MS Aaron and-sons-3MS ACC hands-3MP on head.GEN  
*par ha-ḥattā't*  
 bull.GEN ART-sin.offering  
 Aaron and his sons laid (sg) their hands on the head of the bull of the sin offering.
- (4) וַיִּסְמְכוּ אֶהָרֶן וּבְנָיו אֶת־יְדֵיהֶם עַל־רֹאשׁ הָאֵיל: (Lev 8:18)  
*wayyismākū 'ahārōn û-bānāy-w 'et yadê-hem 'al rō's*  
 lay.WCIPFV.3MP Aaron and-sons-3MS ACC hands-3MP on head.GEN  
*hā-'āyil*  
 ART-ram  
 Aaron and his sons laid (pl) their hands on the head of the ram.

A few studies have taken the optional singular verb agreement as a marker of the discourse primacy of the first conjunct (Levi 1987, Revell 1993, Shepherd 2011; cf. de Regt 1996), but this conclusion has been reached without addressing the full complexity of the syntactic data.

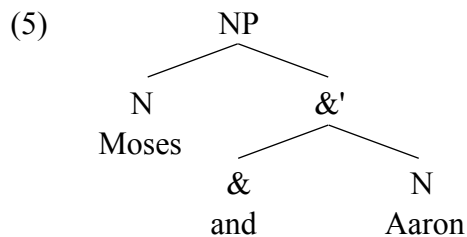
Discourse analysis ought rather to be built on the firm foundation of syntactic theory. This chapter will first carefully consider the syntax of verbal agreement with conjoined singular subjects (§8.2), and then the application of discourse analysis will find its proper place in explaining the agreement asymmetries in BH (§8.3).

## 8.2 A Syntactic Account of Verbal Agreement

There have been a few syntactic analyses of partial agreement in BH (Naudé 1999, Doron 2000, Holmstedt 2009), but as Holmstedt (2009:126) admits, “This small data set presents numerous complexities and they warrant further study.” Here we will finish laying the foundation of syntactic theory. After establishing a cross-linguistic typology of partial agreement patterns (§8.2.1) and the attested patterns in BH (§8.2.2), this section builds upon the previous syntactic analyses (§8.2.3) to explain how optional partial agreement is licensed in BH (§8.2.4)

### 8.2.1 Language Typology of Partial Agreement

As established in chapter 3 and defended in chapters 4–6, coordination is a hierarchical structure wherein the conjuncts function as specifier and complement (Kayne 1994, Johannessen 1998, Zoerner 1999, Zhang 2006) with the coordinator as a defective head (te Velde 2005, Zhang 2007a). Thus, the conjuncts determine the category of the coordinate complex (Kubo 2007, Zhang 2010), as shown in (5).



Johannessen (1996) argues that partial agreement is a natural result of the hierarchical structure of coordination, but not all linguists are so inclined to see a direct relationship between the structure of coordination and verbal agreement.

Advancing a hierarchical structure as well, Zhang (2010) refuses to argue that the syntax of coordination produces agreement asymmetries. Rather, she says that agreement can be affected by lexical plurality, surface word order, adjacency effects, semantic contrasts, agreement attraction, and the difference between natural and accidental coordination (2010:21, 130–132). Her stance is a good warning: verbal inflectional patterns are messy, so proceed with caution.

But we can proceed. In the last decade, several studies from a typological perspective use partial agreement patterns to confirm the hierarchical structure of coordination. While four possible patterns of partial agreement should exist (6–9), only the first three patterns are attested in the world’s languages (Nevins and Weisser 2019).<sup>1</sup>

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<sup>1</sup> Nevins and Weisser (2019:223–224) say that the phenomenon of HCA and the much higher frequency of FCA compared to LCA are arguments against a flat structure of coordination. They also take cases of LCA in head-final languages to be an argument against an adjunction structure of coordination.

- (6) Highest Conjunct Agreement (HCA) = [[NP<sub>1</sub> & NP<sub>2</sub>] V<sub>1</sub>]
- (7) Last Conjunct Agreement (LCA) = [[NP<sub>1</sub> & NP<sub>2</sub>] V<sub>2</sub>]
- (8) First Conjunct Agreement (FCA) = [V<sub>1</sub> [NP<sub>1</sub> & NP<sub>2</sub>]]
- (9) Lowest Conjunct Agreement = \*[V<sub>2</sub> [NP<sub>1</sub> & NP<sub>2</sub>]]

Certain languages (e.g. Hindi, Slovenian, and Serbo-Croatian) display both LCA (7) and FCA (8), subtypes of a broader pattern called closest conjunct agreement (CCA).

Some linguists derive CCA in narrow syntax alone (Bošković 2009, Murphy and Puškar 2018), but others propose that agreement happens twice, first in syntax and then in phonology (Benmamoun et al. 2009, Bhatt and Walkow 2013). Linear adjacency in phonological Spell-Out favours the closest conjunct. Thus, agreement can target the conjunct that is highest (in syntax) or closest (in Spell-Out), but the target in (9) is neither closest nor highest, so it is blocked (Willer-Gold et. al 2018, Nevins and Weisser 2019). This concept of syntactic agreement targeting the highest conjunct and phonological agreement targeting the closest conjunct will be a crucial part of the analysis in §8.2.4, and will be explained in greater detail there.

### 8.2.2 Attested Patterns of Agreement in Biblical Hebrew

The corpus for this study was expanded to include Joshua–2 Kings in order to widen the pool of data. I tallied all of the finite-verb clauses that show agreement with coordinate subjects, the initial conjunct being a singular R-expression.<sup>2</sup> Holmstedt is the latest BH scholar to assess the syntax of conjunct agreement: “Full agreement is the norm, whether SV [subject-verb] or VS [verb-subject].... The BH data show no sensitivity to word order” (2009:108, 127).

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<sup>2</sup> I did not include any examples if the initial conjunct is a collective singular (e.g. Exod 10:24; Num 14:45; 20:11; Deut 8:13a; 11:22; 23:4; Josh 7:9; 1 Sam 17:21; 2 Sam 7:16; 17:21, 26; 1 Kgs 5:5), nor any examples if the initial conjunct is morphologically plural. While I also noted all the relevant data with an initial pronoun conjunct in Genesis–2 Kings, I believe these data represent a different syntactic structure than the R-expression data, which will be addressed in §8.3.2.4.

Contrary to his evaluation, I found full agreement to be the norm only in SV clauses (77.1%),<sup>3</sup> while partial agreement is the norm in VS clauses (86.4%).<sup>4</sup> Others have also reported similar data on partial agreement in VS clauses.<sup>5</sup>

In fact, word order seems to be the syntactic feature that most influences partial agreement in BH. Many syntactic features are shared in the 167 singular-verb and 51 plural-verb clauses. Both the singular verb (95.2%) and plural verb (74.5%) are usually contiguous to the coordinate complex. Both the singular verb (83.8%) and plural verb (80.4%) usually agree with exactly two conjuncts. And for both the singular verb (64.7%) and plural verb (68.6%), there is usually no conjunct binding. The largest disparity between singular verbs (95.2%) and plural verbs (49.0%) reflects how frequently they occur in VS clauses.

While the focus of this chapter is number agreement, number agreement falls within the broader concept of partial agreement. Employing the framework of Corbett (1983), partial agreement means that the verb does not display the usual results of the feature resolution rules: for person resolution,  $1 + (2 \text{ or } 3) = 1$ ,  $2 + 3 = 2$ , and  $3 + 3 = 3$ ; for number resolution,  $SG + SG = PL$  and  $SG + PL = PL$ ; for gender resolution,  $F + F = F$ , but elsewhere is  $M$ .

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<sup>3</sup> There are 27 SV clauses with a plural verb (full agreement): Exod 9:32; 11:10; 17:10, 12; 36:6; Lev 8:31 Num 4:19; 14:6, 38; 16:27; Josh 8:21; 12:6; 18:7; 24:4; Judg 9:44; 1 Sam 17:2; 20:39; 24:23; 2 Sam 1:4; 2:13, 29; 3:23, 30; 4:6; 8:18; 16:15; 2 Kgs 19:37. There are 8 SV clauses with a singular verb (partial agreement): Exod 9:31; 21:4; Lev 7:24; 11:35; Num 19:14; Deut 8:17; 12:15; 2 Sam 20:10.

<sup>4</sup> There are 25 VS clauses with a plural verb (full agreement): Gen 40:1; Exod 5:1; 7:20; 14:9, 23; 16:17; 29:15; 30:19; 34:31; 40:31; Lev 6:9; 8:18, 22; Num 20:10; 31:13; Deut 21:19; Josh 8:15; 14:1; 19:51; Judg 8:12; 1 Sam 31:7; 2 Sam 2:24, 32; 1 Kgs 8:63; 2 Kgs 3:12. There are 159 VS clauses with a singular verb (partial agreement): Gen 3:8; 7:7, 13, 23; 8:18; 9:23; 11:29; 14:5, 8; 17:26; 21:22, 32; 23:20; 24:50, 55, 61; 31:14; 33:7[x2]; 34:20; 35:27; 44:14; 46:1, 12; 47:13; Exod 4:29; 7:6, 10; 8:8; 9:34; 10:3, 8; 15:1, 16; 16:6; 18:5, 12; 23:12[x2]; 24:9, 13; 27:21; 29:10, 19, 32; 34:30; 36:1; Lev 8:14, 36; 9:23; 20:10; 25:33; Num 1:17, 44; 3:4[x2], 39; 4:5, 15, 34, 37, 41, 45, 46; 8:20; 12:1; 14:5; 16:1; 17:8; 20:6, 28; 23:2; 26:3, 19, 60, 61; 31:31, 51, 54; Deut 4:46; 5:14; 13:3; 22:15, 32; 23:2; 27:1, 9; 29:6, 29; 31:14; Josh 8:3; 10:34, 36; 12:7; 13:13; 22:30; Judg 5:1; 7:19; 8:21; 9:26, 34, 35; 14:3, 5; 1 Sam 1:21; 13:22; 14:14, 20, 41; 15:9; 17:11, 34; 18:3; 22:6; 23:3, 5, 13, 25; 26:7; 27:8; 30:3, 4; 31:6; 2 Sam 1:5; 2:12, 17; 5:6; 6:2; 10:13; 12:31; 15:16, 17, 22, 29; 16:13, 14, 18; 17:14, 22; 21:15; 24:4; 1 Kgs 1:34, 38, 41; 12:3[qere], 12; 16:17; 22:29; 2 Kgs 2:1; 3:9; 9:21; 10:5, 23; 12:11; 16:5; 18:18; 28:26, 37; 22:14.

<sup>5</sup> Moreshet (1967) did a corpus study of all conjoined subjects in the prose portions of the Hebrew Bible, and found that the verb in VS clauses was singular 89.4% of the time (210/235 clauses). In a corpus study of Judges–Kings, Revell (1993) found that the verb in VS clauses was singular 91.5% of the time (107/117 clauses).

Looking for person resolution is only relevant for coordinate complexes with an initial pronoun. Thus, gender and number are the relevant features.

When agreement is partial, the verb always agrees with the initial conjunct, whether the coordinate complex is post-verbal (FCA) as in (10),<sup>6</sup> or pre-verbal (HCA) as in (11).<sup>7</sup>

- (10) וַתִּגַּשׁ גַּם-לְאֵה וְיָלְדֶיהָ וַיִּשְׁתַּחֲוּוּ (Gen 33:7)  
*wattiggaš gam lē`ā w-īlādē-hā wayyištahāvū*  
 come.near.WCIPFV.3FS also Leah and-sons-3FS bow.down.WCIPFV.3MP  
 Also Leah and her sons came near (sg) and they bowed down.

- (11) הָאִשָּׁה וְיָלְדֶיהָ תִּהְיֶה לְאֲדֹנֶיהָ (Exod 21:4)  
*hā-`iššā w-īlādē-hā tihyē la-`dōnē-hā*  
 ART-woman and-sons-3FS be.IPFV.3FS to.ART-master-3FS  
 The woman and her sons shall be (sg) for her master.

In many of the reported cases of HCA, however, the singular number on the verb may not be the result of agreement with a single conjunct. Heeding Zhang's (2010) warning, we should recognise the examples in which the two conjuncts are synonyms<sup>8</sup> or together form a single idea,<sup>9</sup> when there is right node raising,<sup>10</sup> or the verb is an expletive.<sup>11</sup>

<sup>6</sup> There are VS clauses with [SG + PL] conjuncts and the verb is singular, showing FCA: Gen 7:23; 14:5; 26:61; 33:7; 44:14; 46:1; Exod 15:1; 18:12; 27:21; 29:10, 19, 32; 34:30; Lev 8:14, 36; Num 4:5, 15; Deut 4:46; 27:1, 9; Josh 8:3; 10:34, 36; 12:7; Judg 9:26, 34, 35; 1 Sam 1:21; 14:20; 15:9; 17:11; 22:6; 23:5, 13, 25; 27:8; 30:3, 4; 2 Sam 2:17; 5:6; 6:2; 10:13 12:31; 2 Sam 15:16, 17; 16:13, 14; 17:22; 21:15; 24:4; 1 Kgs 1:41; 12:3; 12:12; 16:17. For the clauses with [M + F] conjuncts, masculine verb agreement could result from gender resolution (Gen 3:8; 23:20; 24:55; 33:7b; Deut 5:14; 22:15; 29:19; Judg 14:3; 1 Sam 22:3), but crucially in clauses with [F + M] conjuncts, the singular verb is always feminine (Gen 33:7a; Exod 15:16; Num 12:1; Judg 5:1).

<sup>7</sup> Due to my limited corpus, I also consulted the examples of singular verbs in SV clauses catalogued in Holmstedt (2009:110, n. 8). There are a few cases with [SG + PL] conjuncts and the verb is singular, showing HCA (Exod 21:4; Lev 11:35; Jer 49:24). Two of these examples also have [F + M] conjuncts (Exod 21:4; Jer 49:24). For the clauses with [M + F] conjuncts, masculine verb agreement could also point to HCA, but might result from gender resolution (Isa 51:3; Prov 27:9; 29:15; Esth 4:14). For clauses with [F + M] conjuncts, masculine verb agreement might point to LCA, but could also result from gender resolution (Num 15:16; Hos 4:11; Ps 55:6; Eccl 9:11). There is one purported case of LCA (Isa 9:4; see JM §150p), but the two conjuncts could reflect distinct verbless clauses.

<sup>8</sup>Gen 9:2; Lev 11:36; Num 15:16; Deut 8:17; Isa 47:10; 48:5; 51:3; Jer 5:30; 6:7; Hos 10:8; Pss 55:6; 87:5.

<sup>9</sup> Exod 9:31; 10:24; Lev 11:35; Num 11:22; Deut 8:13; Isa 32:14 Jer 49:24; Ezek 5:17; 7:15; Hos 4:11; 9:2; Hab 1:7; Prov 23:21; 27:9; 29:15; Eccl 9:11; Esth 4:3, 14. Others recognise this category (cf. JM §150p, Holmstedt 2009).

<sup>10</sup> Num 19:14.

<sup>11</sup> 2 Kgs 20:19; Ezek 45:5; Zech 8:19. Doron (2000) and Holmstedt (2009) account for singular expletive verbs.

Even with these generous concessions, the remaining examples show that HCA is an established agreement strategy for BH (12).<sup>12</sup> To these we could also add HCA examples with an initial pronoun conjunct (13).<sup>13</sup>

(12) וַיֹּאבֵב וְאַבִּישַׁי אָחִיו רָדְפוּ אַחֲרַי שֶׁבַע (2 Sam 20:10)  
*wə-yô`āb wa-`ābīšay`āh-îw rādāp`ahārê šeba`*  
 and-Joab and-Abishai brother-3MS chase.PFV.3MS after Sheba  
 Joab and Abishai his brother chased (sg) after Sheba.

(13) גַּם־אֲנִי וְנְעוּרֹתַי אֲצִיִּם בְּנֵי (Esth 4:16)  
*gam`ānî wə-na`ārōt-ay`āšûm kēn*  
 also I.NOM and-young.women-1CP fast.IPFV.1CS thus  
 “Also I and my young women will fast (sg) in this way.”

Being that HCA shows agreement with the conjunct furthest from the verb ([[NP<sub>1</sub> & NP<sub>2</sub>] V<sub>1</sub>]), partial agreement cannot be the result of surface word order, adjacency effects, or agreement attraction. It must be produced in the syntax.

Biblical Hebrew presents a fascinating case study of a partial-agreement language, because it allows for HCA and FCA, but not LCA. To my knowledge, no other language has been reported with these exact agreement patterns.<sup>14</sup> Thus, the results of this chapter should be interesting, not only to the field of BH but also so the wider field of generative linguistics.

### 8.2.3 Previous Syntactic Analyses for Biblical Hebrew

There have been two previous syntactic accounts of partial agreement in BH. First, Doron (2000) treats BH as an FCA-only language, wrongly assuming that full agreement is required

<sup>12</sup> Cf. Gen 35:11; Exod 21:4; Lev 7:24; 11:35; Deut 12:15; Jer 49:24; Neh 6:12. At least two of these have text critical issues. Regarding 2 Sam 20:10, there is a Qumran Hebrew manuscript with a plural verb, which is reflected in multiple Greek manuscripts, the Syriac, Targum, and Vulgate. Regarding Neh 6:12, the form שֶׁבַע could be re-pointed as שֶׁבַע, a PFV.3MP verb with a *pro*-drop verbal complement, which is reflected in the LXX.

<sup>13</sup> Almost all of my SV pronoun data show full agreement with a plural verb (Gen 22:5; Exod 9:27; Num 16:16; 18:1[x2], 7; Josh 8:5; 24:15; Judg 9:33; 1 Sam 14:40; 2 Sam 19:30; 1 Kgs 3:17; 2 Kgs 9:25). Only 2 Kgs 4:7 displays HCA, but Revell (1993:77, n. 13) provides two other examples: Esth 4:16; Neh 5:14.

<sup>14</sup> The FCA-only pattern is attested in Arabic (Aoun et al. 1994, 1999), Dutch (van Koppen 2006), and Finnish (Crone 2016). The LCA-and-FCA pattern is attested in Hindi and Tsez (Benmamoun et al. 2009). Finally, the HCA-and-LCA-and-FCA pattern is attested in Slovenian (Marušič et al. 2015) and Bosnian, Croatian, and Serbian (Čordalija et al. 2016).

in SV clauses.<sup>15</sup> Then she follows Moreshet (1967) in saying that the verb is singular in VS clauses, unless it is preceded by another constituent or a clitic is attached to the verb. However, even this generalisation about the VS data is insufficient, as examples (14)–(15) demonstrate. In both examples, the verb is clause-initial without a clitic, and yet it is plural.<sup>16</sup>

(14) וַיִּרְדְּפוּ יוֹאָב וְאַבִּישַׁי אַחֲרַי אֲבִנֵּר (2 Sam 2:24)  
*wayyirdāpū yô'āb wa-'ābīšay 'ahărê 'abnēr*  
 chase.WCIPFV.3MP Joab and-Abishai after Abner  
 Joab and Abishai chased (pl) after Abner.

(15) וַיִּנּוּסוּ זֶבַח וְזַלְמוֹנָא וַיִּרְדֹּף אַחֲרֵיהֶם (Judg 8:12)  
*wayyānūsū zebah wə-šalmunnā' wayyirdōp 'ahărê-hem*  
 flee.WCIPFV.3MP Zebah and-Zalmunna chase.WCIPFV.3MS after-3MP  
 Zebah and Zalmunna fled (pl), and he chased after them.

Holmstedt (2009) adds a couple of theory-dependent counter-arguments to Doron (2000),<sup>17</sup> but the above empirical shortcomings alone are insurmountable.

Second, Naudé (1999) develops a syntactic account specifically for verbal agreement in clauses that have a post-verbal coordinate phrase with an initial pronoun conjunct. According to his analysis, the coordinate compound is not a subject, but rather an adjunct quantification phrase (QP). He relies on three arguments for this position. First, some sentences have an overt subject besides the coordinate structure (16).<sup>18</sup> Second, coordinate structures are often separated from the verb, thus appearing like dislocations (17).<sup>19</sup>

<sup>15</sup> This assumption seems to be shared also by BHRG (§35.8).

<sup>16</sup> Holmstedt (2009:118) lists the following examples of a plural verb in a VS clause without a pre-verbal constituent or a verbal clitic: Exod 16:17; 29:15; 30:19; Lev 8:18, 22; Num 20:10; 31:13; Josh 7:9; 8:15; Judg 8:12; 2 Sam 2:24; 1 Kgs 12:3; Isa 35:10; 42:11; 51:11; Jer 11:10; Ezek 4:17b; 1 Chron 24:2; 2 Chron 31:8.

<sup>17</sup> His stronger argument responds to Doron's (2000) claim that the verb is plural if it raises from T-to-F or T-to-C. Holmstedt (2009:119–120) points out that *vayyiqtol* and modal clauses likely exhibit T-to-C raising, yet many of these verbs are singular, which introduces an avalanche of counterexamples to Doron's analysis.

<sup>18</sup> Other examples: Gen 13:1; 17:9; 35:6; 50:14, 22; Num 11:30; 21:33; Deut 2:32; 3:1; Josh 6:17; 10:7; Judg 8:48; 19:9; 1 Sam 9:26; 27:3; 29:11; 30:9, 31; 2 Sam 17:24; 1 Kgs 20:12, 16; 2 Kgs 9:14; 24:12.

<sup>19</sup> Other examples: Gen 6:18; 8:16; 13:1; 19:30; 31:44; 35:6; 38:12; 41:11; 45:10; 50:14, 22; Exod 9:34; 20:10; 24:1; 33:1, 16; Lev 10:14; 25:41, 54; Num 1:3; 11:30; 20:8; 21:33 23:6; 31:26; Deut 2:32; 3:1; 5:14; 12:18; 15:20; 16:11, 14; 17:20; 30:2; 32:44; Josh 1:2; 3:1; 6:17; 7:6, 18; 9:32, 48; 10:7; 11:37; 19:9; 1 Sam 9:26; 22:13, 16; 27:3; 28:1; 29:11; 30:9, 10, 31; 2 Sam 9:10; 17:24; 1 Kgs 10:13; 11:17; 20:16; 2 Kgs 5:15; 9:14; 14:11; 24:12.

- (16) וַיִּרְדֵּף דָּוִד הוּא וְאַרְבַּע־מֵאוֹת אִישׁ (1 Sam 30:10)  
 wayyirdōp dāwīd hū' wə-'arba' mē'ōt 'iš  
 chase.WCIPFV.3MS David he.NOM and-four hundreds man  
 David gave chase (sg), he and four hundred men.
- (17) וַיִּחַלֵּק עֲלֵיהֶם | לַיְלָה הוּא וְעַבְדָּיו (Gen 14:15)  
 wayyēḥālēq 'ālē-hem laylā hū' wa-'ābādāy-w  
 divided.WCIPFV.3MS on-3MP night he.NOM and-servants-3MS  
 He was divided against them at night, he and his servants.

These first two arguments are especially strong for establishing the case that the coordinate compound is not the subject, but an adjunct that modifies the true syntactic subject.

Third, independent personal pronouns occur as sentence subjects only in a pre-verbal, never a post-verbal, position with null-subject verbs. Thus, the syntactic subject in these clauses is usually *pro*. When *pro* is singular, it is coindexed with and resumed by the initial pronoun only (17); however, when *pro* is plural, it is coindexed with and resumed by the entire coordinate complex (18).

- (18) וַיֵּאָכְלוּ וַיִּשְׂתּוּ הוּא וְהָאֲנָשִׁים אֲשֶׁר־עִמּוֹ (Gen 24:54)  
 wayyō'kalū wayyištū hū' wə-hā-'ānāšīm 'āšer 'imm-ō  
 eat.WCIPFV.3MP drink.WCIPFV.3MP he.NOM and-ART-men which with-3MP  
 They ate and drank, he and the men who were with him.

The distribution of *pro* is discourse-dependent, and it is allowed “only where the empty pronominal element in a subject position can be licensed and is identifiable” (Naudé 1999:90). Thus, the referent of *pro* must be active in the discourse in order to know to whom it refers.

Holmstedt (2009) applies this *pro*-and-adjunct analysis to coordinate structures with an initial R-expression, but without sufficient warrant. There are five reasons to believe that compounds with an initial R-expression are true subjects and, thus, distinct from pronoun-initial compounds. First, in VS clauses with a singular verb, the structures headed by an R-expression are usually contiguous to the verb (151/159 = 95.0%), while those headed by a

pronoun are much less frequently contiguous to the verb (35/91 = 38.5%). This disparity on the issue of contiguity is significant, because as Naudé (1999:91) argues, the adjunct pronoun structure “shows the same distributional characteristics as dislocated constituents.” If R-expression structures are likewise adjuncts, it is odd that they are almost always contiguous to the verb.

Second, in VS clauses with a singular verb, the structures headed by an R-expression infrequently have conjunct binding (35.2%), while QPs usually have conjunct binding (82.4%). The coordinate QP modifies the singular subject, with which the pronoun conjunct is coreferential; thus, the later conjunct(s) in the QP must have a natural relation to the pronoun, usually expressed through conjunct binding. Of the non-binding examples, most conjunct pairs consist of a leader and the people (Exod 33:1, 16; Deut 15:20; Josh 1:2; 1 Sam 30:10; 2 Kgs 9:14;) or a leader and fellow leaders (Exod 3:18; 24:1; Num 11:30; 31:26; Deut 32:44; Josh 7:6; 8:10; 1 Sam 19:18; 1 Kgs 20:12). Thus, a natural relationship holds between the conjuncts, and the coordinate QP is able to modify the singular subject. R-expression compounds, on the other hand, need no conjunct binding, because the two conjuncts together comprise a plural subject.

Third, structures with an initial R-expression license plural anaphora (פְּנֵיהֶם “their faces”) (19), while structures with an initial pronoun license singular anaphora (פְּנֵי “his face”) (20).<sup>20</sup>

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<sup>20</sup> I did a search for the construction *עַל נַפְל עַל* followed by *פְּנֵים* with a pronominal suffix, looking for the sense of “to fall on one’s own face.” If there is a singular R-expression subject, both the verb and pronominal suffix are singular (Gen 17:3, 17). If it is a null *pro* clause, the agreement features on the verb and pronominal suffix match as either singular (1 Sam 17:49; 25:23; 2 Sam 9:6; 1 Kgs 18:7; Ezek 1:28; 3:23; 9:8; Ezek 11:13; Ruth 2:10; Dan 8:17) or plural (Lev 9:24; Num 16:22; 17:10; 20:6; Judg 13:20; 1 Kgs 18:39). FCA examples with R-expression conjuncts are the only examples with a singular verb but a plural pronominal suffix (Num 14:5; 1 Chron 21:16), indicating that the conjuncts are clausal subjects. The anaphora data consistently distinguish between structures with an initial R-expression and those with an initial pronoun. R-expression FCA examples occur with plural anaphora (Gen 11:29; Num 14:5; Exod 29:10; 1 Sam 30:4), while a singular verb following by a coordinate structures with an initial pronoun occurs with singular anaphora (Exod 9:34; Josh 7:6).

- (19) וַיִּפֹּל מֹשֶׁה וְאַהֲרֹן עַל-פְּנֵיהֶם לִפְנֵי כָּל-קְהַל עֵדוּת בְּנֵי יִשְׂרָאֵל: (Num 14:5)  
*wayyippōl mōšē wə-’ahārōn ‘al pānē-hem līpnē kol*  
 fall.WCIPFV.3MS Moses and-Aaron on faces-3MP before all.GEN  
*qəhal ‘ādat bənē yiśrā’ēl*  
 assembly.GEN congregation.GEN sons.GEN Israel  
 Moses and Aaron fell (sg) on their faces before all the assembly of the  
 congregation of the children of Israel.
- (20) וַיִּקְרַע יְהוֹשֻׁעַ שְׂמֹלֹתָיו וַיִּפֹּל עַל-פְּנָיו אֶרֶץ לִפְנֵי אֲרוֹן יְהוָה עַד-הָעֶרֶב הוּא  
 וְזִקְנֵי יִשְׂרָאֵל וַיַּעֲלוּ עָפָר עַל-רֵאשָׁם: (Josh 7:6)  
*wayyiqra ‘ yehōšua ‘ šimlōt-āyw wayyippōl ‘al pānāy-w*  
 tear.WCIPFV.3MS Joshua garments-3MS fall.WCIPFV.3MS on face-3MS  
*’arṣ-â līpnē ’ārōn yhw h ‘ad hā-’ereḇ hū’*  
 ground-LOC before ark.GEN YHWH until ART-evening he.NOM  
*wə-ziqnē yiśrā’ēl wayya ‘ālū ‘āpār ‘al rō’š-ām*  
 and-elders.GEN Israel lift.WCIPFV.3MP dust on head-3MP  
 Joshua tore his garments and fell (sg) on his face to the ground before the ark  
 of YHWH until the evening, he and the elders of Israel, and they lifted dust on  
 their heads.

For good reason, this argument from plural anaphora is often used to show that the conjuncts result from phrasal coordination, and that the verb shows FCA (Johannessen 1996, Doron 2000, Soltan 2007).

The fourth reason Holmstedt is wrong to collapse all coordinate constructions into a *pro*-and-adjunct analysis is that he is inconsistent in how he explains how *pro* is used. On the one hand he says, “In BH *pro* is used when its antecedent accessibility within the discourse is high” (2009:122), yet he says concerning (21) below, “The 3FS *pro* anticipates Miriam’s prominence in the minor rebellion against Moses” (2009:124). Antecedence and anticipation are terms that point in opposite directions. It is better to view *pro* as always having an anaphoric (never a cataphoric) role; conversely, R-expression constructions often introduce non-salient agents into the narrative, as in (22).

- (21) וַתְּדַבֵּר מִרְיָם וְאַהֲרֹן בְּמֹשֶׁה (Num 12:1)  
*wattəḏabbēr miryām wə-’ahārōn bə-mōšē*  
 speak.WCIPFV.3FS Miriam and-Aaron in-Moses  
 Miriam and Aaron spoke (sg) against Moses.

- (22) וַיְהִי בְּעֵת הַהוּא וַיֹּאמֶר אֲבִימֶלֶךְ וּפִיכֹל שָׂר־צָבָאוֹ אֶל-אַבְרָהָם (Gen 21:22)  
 wayhî bā-‘ēṯ ha-hīw’ wayyō`mer `ābīmelek  
 be.WCIPFV.3MS in.ART-time ART-that say.WCIPFV.3MS Abimelech  
 ū-ṗīkōl śar šəḇā`-ō `el `abrāhām  
 and-Phicol commander.GEN army-3MS to Abraham  
 And it came about at that time that Abimelech and Phicol the commander of  
 his army said (sg) to Abraham.

Example (21) is the first mention of Miriam in Numbers, and (22) marks Abimelech’s re-entrance into the narrative after twenty-one verses that comprise two intervening episodes: the birth of Isaac (Gen 21:1–7) and the expulsion of Hagar and Ishmael (21:8–21).

Fifth and finally, Holmstedt (2009:126) says, “It is tempting to take all of [the HCA examples] as *pro* clauses, with the added twist of the fronting of the conjoined-‘subject’ adjunct phrase into a Topic or Focus position.” However, this analysis is not appealing when one recognises the category of HCA as an agreement strategy that has been attested in multiple other languages (Marušič et al. 2015, Čordalija et al. 2016). Naudé (1999) is right to apply an adjunct-QP analysis of coordinate structures with an initial pronoun, but there is not sufficient warrant to apply it to coordinate structures with an initial R-expression. We must be able to provide a syntactic analysis for partial agreement in BH when the initial conjunct is an R-expression, because such compounds are true subjects.

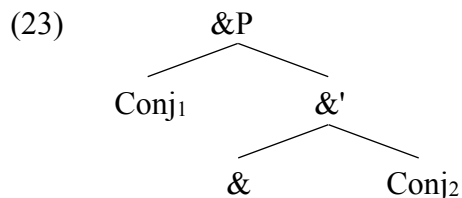
#### 8.2.4 Syntactic Analysis for Partial Agreement Patterns in Biblical Hebrew

As stated above, Marušič et al. (2015) provide a syntactic account of three different strategies for partial agreement in Slovenian (6–8). BH employs strategies (6) and (8), but not (7).

- (6) Highest Conjunct Agreement (HCA) = [[NP<sub>1</sub> & NP<sub>2</sub>] V<sub>1</sub>]  
 (7) Last Conjunct Agreement (LCA) = [[NP<sub>1</sub> & NP<sub>2</sub>] V<sub>2</sub>]  
 (8) First Conjunct Agreement (FCA) = [V<sub>1</sub> [NP<sub>1</sub> & NP<sub>2</sub>]]

In order to proceed, we need to understand the system of Marušič et al. (2015) and find the parameter(s) that could limit it within BH to block LCA while still licensing HCA and FCA.

Marušič et al. (2015) assume an asymmetric coordination structure (23), and argue that the verbal agreement Probe can target one of three Goals: Conj<sub>1</sub>, Conj<sub>2</sub>, or &P.<sup>21</sup>



In Slovenian, &P has a plural number feature but no gender feature. If Probe targets &P and does not peek inside at the conjuncts, the Goal supplies plural number and inserts default masculine gender. A grammar that ranks the constraints NO PEEKING > NO DEFAULT produces full agreement, but a grammar with the opposite ranking of NO DEFAULT > NO PEEKING produces partial agreement.<sup>22</sup>

For partial agreement, the choice of Conj<sub>1</sub> or Conj<sub>2</sub> is the result of Agree occurring in two steps: Agree-Link and Agree-Copy. Agree-Link always applies in the narrow syntax, establishing the Probe-Goal relations. Agree-Copy retrieves these values and applies either in the syntax or post-syntax. If it occurs in the syntax before linearisation (i.e., the flattening of &P), it agrees with the highest conjunct; if it occurs post-syntax after conjunct flattening, it agrees with the closest conjunct.

A key feature of this analysis finds a welcome home in the coordination framework proposed here: the coordination head lacks full agreement features. In fact, in this thesis the coordinator is proposed to be a defective head that projects the category of the conjuncts.

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<sup>21</sup> They assume the maximal category of &P while I have argued for NP, but the difference is irrelevant.

<sup>22</sup> Although they do not say so explicitly in their article, Marušič et al. (2015) seem to employ the architecture of Optimality Theory (OT) with the use of ranked viable constraints. The following represents my attempt at defining the constraints:

- (i) NO PEEKING: Assign a violation mark if Probe agrees with one of the conjuncts
- (ii) NO DEFAULT: Assign a violation mark if Probe agrees with the node at the top of the phrase

Arsenijević and Mitić (2016) propose modifying the account of Marušič et al. (2015) to allow for optional number specification in &P, and this is in line with Doron (2000) and Kiss (2012) who argue, for Hebrew and Hungarian respectively, that &P lacks a number specification.

Applying the framework to BH, when NO DEFAULT is ranked higher, Probe will peek inside and agree with the first conjunct (3). But when NO PEEKING is ranked higher, the maximal NP projection will insert default plural number (4).<sup>23</sup>

- (3)     וַיִּסְמְךָ אֶהֱרֹן וּבָנָיו אֶת־יְדֵיהֶם עַל־רֹאשׁ פָּרַת הַחַטָּאת: (Lev 8:14)  
*wayyismōk     'ahārōn û-bānāy-w     'et yadê-hem     'al rō's*  
 lay.WCIPFV.3MS Aaron     and-sons-3MS ACC hands-3MP on head.GEN  
*par     ha-ḥattā't*  
 bull.GEN ART-sin.offering  
 Aaron and his sons laid (sg) their hands on the head of the bull of the sin offering.

- (4)     וַיִּסְמְכוּ אֶהֱרֹן וּבָנָיו אֶת־יְדֵיהֶם עַל־רֹאשׁ הָאֵיל: (Lev 8:18)  
*wayyisməku     'ahārōn û-bānāy-w     'et yadê-hem     'al rō's*  
 lay.WCIPFV.3MP Aaron     and-sons-3MS ACC hands-3MP on head.GEN  
*hā-'āyil*  
 ART-ram  
 Aaron and his sons laid (pl) their hands on the head of the ram.

The tension of NO DEFAULT versus NO PEEKING in the grammar explains the singular/plural verb alternation in (3) and (4), and elsewhere in the Hebrew Bible.<sup>24</sup>

The next step in the syntactic analysis for BH is to block LCA and also motivate the much higher frequency of the FCA pattern compared to the HCA pattern. First, we can block

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<sup>23</sup> Lee (2001) uses *variation* to refer to inter-speaker differences and *optionality* to refer to intra-speaker differences. Within the framework of OT, which ranks constraints in a “strict dominance hierarchy” (Prince and Smolensky 1993:2), optionality has been problematic, because it requires one grammar to produce multiple optimal outputs. Nevertheless, Scheumann (2017:7–18) is able to produce optional regressive voicing assimilation in Modern Hebrew with a crucial unranking of adjacent constraints (cf. Demuth 1997, Anttila 1997, Anttila and Cho 1998, Asudeh 2001, Auger 2001, Lee 2001, Violin 2001, Cardoso 2009). The same approach can be employed here.

<sup>24</sup> There are four other minimal pairs of sg/pl agreement in VS clauses: Gen 14:8//Num 13:13; Gen 33:7//Exod 5:1; Exod 29:10//Exod 29:15; and Num 31:54//Num 20:10. There is also one in SV clauses: Exod 9:31//Exod 9:32.

LCA by assuming that Agree-Copy always occurs before linearisation in BH.<sup>25</sup> Thus, if agreement is partial, the verb will always agree with the first conjunct, whether in a VS clause (10) or in a SV clause (11).

(10) וַתֵּגַשׁ גַּם-לְאֵה וּלְדָוֶיהָ וַיִּשְׁתַּחֲוּוּ (Gen 33:7)  
*wattiggaš gam lē`ā w-ilādē-hā wayyištaḥāwū*  
 come.near.WCIPFV.3FS also Leah and-sons-3FS bow.down.WCIPFV.3MP  
 Also Leah and her sons came near (sg) and they bowed down.

(11) הָאִשָּׁה וּלְדָוֶיהָ תִּהְיֶה לְאֲדֹנֶיהָ (Exod 21:4)  
*hā-`iššā w-ilādē-hā tihyē la-`dōnē-hā*  
 ART-woman and-sons-3FS be.IPFV.3FS to.ART-master-3FS  
 The woman and her sons shall be (sg) for her master.

Usually the notion of Agree-Copy is employed for motivating LCA as a post-syntactic operation. Nevertheless, it is still useful for BH, because it incorporates the notion of linearisation, which explains why (8) is a dominant pattern in BH while (6) is so infrequent.

(6) Highest Conjunct Agreement (HCA) = [[NP<sub>1</sub> & NP<sub>2</sub>] V<sub>1</sub>]

(8) First Conjunct Agreement (FCA) = [V<sub>1</sub> [NP<sub>1</sub> & NP<sub>2</sub>]]

In FCA (8), Agree and the Goal are contiguous after linearisation, but this is not the case in HCA (6). Hence, it is likely the cognitive load of intervening constituents that disfavors (6).

There is some evidence that linear adjacency and cognitive load have an effect on agreement patterns in BH. As we have seen, FCA is the dominant pattern in VS clauses, and in these cases the subsequent verb is usually plural (24).<sup>26</sup>

<sup>25</sup> Benmamoun et al. (2009) show that in languages where agreement happens in the post-syntax, there are varying requirements for adjacency. Tsez requires strict adjacency for the verb and coordinate subjects, but Hindi has a graded allowance for intervening constituents. Moreover, they provide a warrant for post-syntactic Agree being the more marked strategy. This means that, typologically-speaking, there should be languages like Arabic that just employ Agree in narrow syntax, but there should not be any languages that just employ Agree in post-syntax.

<sup>26</sup> With the criterion of a null-subject verb in the subsequent main clause, there are 52 cases where this verb is plural: Gen 9:23; 14:5; 21:32; 24:50, 61; 31:14; 33:7[x2]; 34:20; Exod 4:29; 7:10; 10:3; 15:1; 24:9–10; 29:32–33; Lev 9:23; Num 4:5; 12:1–2; 16:1–2; 20:6; 31:54; Deut 4:46–47; 22:15; 31:14; Josh 10:34, 36; 22:32; Judg 7:19; 9:26, 34; 14:5; 1 Sam 14:20; 15:9; 17:11; 23:13; 27:8; 30:4; 2 Sam 6:2–3; 15:17, 29; 17:22; 21:15; 24:4–5; 1 Kgs 1:38; 12:3[qere]; 16:17; 2 Kgs 3:9; 9:21; 12:11; 16:5; 18:37; 22:14. There are only 6 cases where the subsequent verb is singular: Gen 46:1; Exod 18:5–6; 1 Sam 17:34; 23:5; 2 Sam 16:14; 2 Kgs 10:23.

- (24) וַיַּעַן לָבָן וּבְתוּאֵל וַיֹּאמְרוּ (Gen 24:50)  
*wayya 'an lābān û-bətu'el wayyō 'marû*  
 answer.WCIPFV.3MS Laban and-Bethuel say.WCIPFV.3MP  
 Laban and Bethuel answered (sg) and said (pl).

With (24) as representative of the usual pattern, (25) is a striking example of what can happen in FCA when the cognitive load becomes stressed by an extended coordinate subject.

- (25) וַיִּשְׁלַח נְבוּזַרְאֲדָן רֶב־טַבָּחִים וְנְבוּשַׁזְבָּן רֶב־סָרִיס וְנִרְגַל שַׂר־אֶצֶר רֶב־מַגּ וְכָל רַבֵּי מְלָךְ־בָּבֶל: וַיִּשְׁלְחוּ וַיִּקְחוּ אֶת־יִרְמְיָהוּ  
*wayyishlah nəbūzar'ādān rab tabbāhîm û-nəbūšazbān*  
 send.WCIPFV.3MS Nebuzaradan chief.GEN guards and-Nebushazban  
*rab sārîs wə-nērġal śar 'ešer rab māġ wə-kōl*  
 chief.GEN eunuch and-Nergal sar ezer chief.GEN officer and-all.GEN  
*rabbê meleḵ bābel wayyishlahû wayyiqhû 'et*  
 chiefs.GEN king.GEN Babel send.WCIPFV.3MP take.WCIPFV.3MP ACC  
*yirməyāhû*  
 Jeremiah  
 Nubuzaradan the captain of the guard, Nebushazban the chief eunuch, Nergal-sar-ezer the chief officer, and all the officials of the king of Babylon sent (sg) and sent (pl) and took (pl) Jeremiah.

The clause-initial singular verb (וַיִּשְׁלַח) agrees with the first conjunct, but the coordinate subject extends for some time, so before relating the next action (וַיִּקְחוּ), the author updates the reader by repeating the initial verb, this time with plural agreement after all the conjuncts are stated (וַיִּשְׁלְחוּ).

### 8.2.5 Summary

BH is an important contribution to a cross-linguistic typology of verbal agreement, because it consistently favours the higher conjunct rather than the closer conjunct, something not reported in any other partial-agreement language (§8.2.1). This syntactic study has shown that a coordinate compound headed by an R-expression is a subject, while a post-verbal compound headed by a pronoun is a quantification phrase that modifies the true subject (§8.2.3). Thus, partial agreement only applies to R-expression compounds. Within these data, the verb is

usually singular in a VS clause and plural in an SV clause (§8.2.2). A syntactic framework is able to generate this pattern of optional partial agreement by splitting Agree into two steps: Agree-Link, which operates in narrow syntax, and Agree-Copy, which applies before or after phonological Spell-Out (§8.2.4).

### **8.3 A Discourse-Analysis Account of Verbal Agreement**

Syntax alone is unable to provide full explanatory adequacy for the optional partial-agreement patterns in BH. Discourse analysis is also needed, and Naudé (1999:97) incisively states the priority of relationship: “In order to ensure progress, discourse analysis should resume where syntactic theory ceases.” With the syntactic account of partial agreement in §8.2, discourse analysis will need to accept a more limited role in providing explanatory adequacy for the BH data.

In the past, Hebraists who have advanced discourse analysis to account for partial agreement in BH have not given a full consideration of the syntax first (e.g. Levi 1987, Revell 1993, Shepherd 2011). Conversely, those who have advanced syntactic accounts of partial agreement have not taken the extra step to explain what role discourse analysis does play in explaining the data (e.g. Naudé 1999, Doron 2000, Holmstedt 2009).

Holmstedt (2009:111) recognises the need to do both syntax and discourse analysis. In this regard, Naudé is a sure guide in setting methodological assumptions: “The problems besetting co-ordinate subjects are not to be solved on one linguistic level alone, but by way of an approach in which the information gleaned from a study of different linguistic levels are allowed to complement each other” (1999:75). In this section, I will first critique previous studies in discourse analysis, pointing out claims that do not account for the full range of

syntactic data (§8.3.1). Then I will present a more constrained discourse-analysis account for explaining the agreement asymmetries in BH (§8.3.2).

### 8.3.1 A Critique of Previous Discourse Analyses

Revell (1993) presents the most thorough discourse-analysis account of partial agreement in BH. He analyzes compound subjects in *Judges*, *Samuel*, and *Kings*, where both conjuncts are humans and at least one is singular. He is particularly interested with the number feature on the verb and argues that concord is “not simply a means of marking grammatical relationship” (1993:69), nor is it “determined by its position relative to a compound subject” (1993:71).

He recognises five different syntactic structures for these compound subjects<sup>27</sup> and concludes: “Most of the compounds ... are clearly of the ‘principal and adjunct’ type. The initial component represents the principal actor; other components represent less important associates” (1993:72). He admits that a singular verb before the compound subject is the “unmarked” option, yet he paradoxically maintains that it is a “choice [that] emphasises the fact that the initial component of the compound is [the] principal actor” (1993:75).<sup>28</sup> Conversely, a plural verb is used either to mark the conjuncts as equal actors, to downplay the narrative significance of an action, or to mark a terminal clause of a narrative unit (1993:73–74, 77–78).

Interestingly, while Revell distinguishes between five different syntactic structures, he does so only to differentiate “the extent to which the status of the initial component as

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<sup>27</sup> I prefer to describe these structures from (Revell 1993:71–72) in my own terminology:

- (1) Conjoined R-expressions without conjunct binding;
- (2) Conjoined R-expressions with the subsequent conjunct(s) bound to the first with a pronoun;
- (3) R-expression followed by a coordinate compound that is headed by a pronoun;
- (4) R expression followed by a verb followed by a coordinate compound that is headed by a pronoun;
- (5) Structures that imply conjoint action, although no formal compound is used.

<sup>28</sup> Similarly, Shepherd (2011:111) writes, “These constructions serve to set the major characters apart from the minor ones. ... Singular verb plus compound subject constructions almost exclusively occur with major characters as the first member of the compound subject.”

‘principal’ is made evident” (1993:73). He is primarily concerned with semantic factors that affect agreement, and he too quickly dismisses word order as a contributing factor simply by saying that it is not the determining factor. This leads to a skewed presentation of the discourse significance of both singular and plural verbs.

Regarding singular verbs, Revell is incorrect to say that it always emphasises the first conjunct as the principal actor. Three different types of data are relevant. First, the “each one” adjunct in (26) and plural anaphora in (27) indicate that the conjuncts are equal actors.

- (26) וַיֵּצֵא יְהוֹרָם מֶלֶךְ־יִשְׂרָאֵל וְאַחֲזִיָּהּ מֶלֶךְ־יְהוּדָה אִישׁ בְּרֶכֶבּוֹ וַיֵּצְאוּ לִקְרַאת יְהוָה  
 (2 Kgs 9:21)  
*wayyēšē’ yāhōrām melek yisrā’el wa-’āhazyāhū melek*  
 go.out.WCIPFV.3MS Jehoram king.GEN Israel and-Ahaziah king.GEN  
*yāhūdā ’iš bə-riḵb-ō wayyēšə’ū li-qra’t yēhū’*  
 Judah man in-chariot-3MS go.out.WCIPFV.3MP to-meet.INF Jehu  
 Jehoram king of Israel and Ahaziah king of Judah went out (sg), each in his  
 chariot, and they went out to meet Juhu.

- (27) וַיָּמָת נָדָב וְאַבִּיהוּא לְפָנֵי אָבִיהֶם וּבָנִים לֹא־הָיוּ לָהֶם (1 Chron 24:2)  
*wayyāmot nādāb wa-’ābīhū’ liḵnē ’ābī-hem ū-bānīm lō’*  
 die.WCIPFV.3MS Nadab and-Abihu before father-3MP and-sons NEG  
*hāyū lā-hem*  
 be.PFV.3MP to-3MP  
 Nadab and Abihu died (sg) before their father, and there were no children to  
 them.

Each king does the same action in (26), and no one brother is prominent in dying in (27). Even in the narrative account of their death, Nadab and Abihu are introduced as “the sons of Aaron” (Lev 10:1), and each of their five actions is indicated in the plural (10:1–2).

Second, there are passages that alternate between singular and plural verbs for the same repeated action. In the instructions for sacrificing animals in Exodus 29, Aaron and his sons are to place their hands on each one, which is first presented in the singular וְסָמְךָ (v. 10), then in the plural וְסָמְכוּ (v. 15), and finally in the singular וְסָמְךָ (v. 19). In the narrative account of them placing their hands on each animal in Leviticus 8, the verb is first singular

וַיִּסְמְכוּ (v. 14) and then plural וַיִּסְמְכוּ (vv. 18, 22).<sup>29</sup> It is unclear why Aaron would be the principal actor in laying his hand on the bull (sg verb in Exod 29:10; Lev 8:14) but not with the first ram (pl verb in Exod 29:15; Lev 8:18), and why the texts would portray this meaningful distinction in contradictory ways with the second ram (sg verb in Exod 29:19 and pl verb in Lev 8:22).

Third, the subsequent verb after FCA examples is plural 89.7% of the time (see footnote 26). Some Hebraists wrongly say that any subsequent verbs “are necessarily put in the plural” (GKC §146h; cf. BHRG §35.9, Shepherd 2011:110). But Revell is also wrong to claim that the choice depends on whether the focus is on the principal (sg verb) or on the group (pl verb) (1993:84). Forcing each verbal form to be marked would make (28) say that Laban is the principal actor in answering (sg verb), but not in the speaking (pl verb).

- (28) וַיֵּצֵא לָבָן וּבְתוּאֵל וַיֹּאמְרוּ מִיְהוָה יֵצֵא הַדָּבָר לֹא נוּכָל דַּבֵּר אֵלֶיךָ רַע אוֹ-טוֹב:  
 (Gen 24:50)  
*wayya ‘an lābān û-bəṯû’ēl wayyō’mərû mē-yhwh*  
 answer.WCIPFV.3MS Laban and-Bethuel say.WCIPFV.3MP from-YHWH  
*yāšā’ had-dābār lō’ nūkal dabbēr ‘ēlē-kā ra’ ’ô tōb*  
 go.out.PFV.3MS ART-word NEG able.IPFV.1CP speak.INF to-2MS evil or good  
 Laban and Bethuel answered (sg) and said (pl), “From YHWH this word has gone out. We are not able to speak to you evil or good.”

However, according to Miller’s (2003b) extensive syntactic work on quotative frames, both finite verbs in a multiple-verb frame like in (28) refer to the same speech event involving the same speech participants (see also Miller-Naudé and Naudé 2015). There is no way to make such a dichotomy between the verbs. More broadly, the fact that the subsequent verb is usually plural is a strong indicator that the clause-initial singular verb does not mark discourse prominence of the first conjunct.

<sup>29</sup> Shepherd (2011:114) notes that the Samaritan Pentateuch and LXX have singular verbs consistently in Lev 8:14, 18, 22. But since variation between witnesses could reflect a different parent Hebrew text or—particularly regarding number agreement on the verb—the syntactic style of the translators, Shepherd is appropriately cautious to make conclusions from textual criticism on texts that differ regarding number agreement on the verb (2011:116–120). We must account for optional singular agreement within the MT itself.

This inflectional pattern—a singular pre-subject verb followed by a plural *pro*-drop verb—is reflected even in cases where the subject is a collective singular noun. When עַם is a subject in absolute state without a quantifier or modifier and occurs in a post-verbal position, it usually agrees with a singular verb.<sup>30</sup> Moreover, in cases where the initial verb is singular, the subsequent *pro*-drop verb is plural 89.3% of the time, illustrated in (29)–(30).<sup>31</sup>

- (29) וַיִּרְבּוּ הָעָם עִם־מֹשֶׁה וַיֹּאמְרוּ תִּנּוּ־לָנוּ מַיִם וְנִשְׁתֶּה (Exod 17:2)  
*wayyāreb hā-‘ām ‘im mōšē wayyō’marū tənû*  
 quarrel.WCIPFV.3MS ART-people with Moses say.WCIPFV.3MS give.IMP.2MP  
*lā-nû mayim wə-nišṭē*  
 to-1CP water and-drink.IPFV.1CP  
 The people quarreled (sg) with Moses and said (pl), “Give us water that we may drink.”

- (30) וַיֵּצֵא הָעָם וַלְקָטוֹ דְּבַר־יוֹם בְּיוֹמוֹ (Exod 16:4)  
*wayyāšā’ hā-‘ām walāqəṭū dəḅar yôm bə-yôm-ô*  
 go.out.WCPFV.3MS ART-people gather.WCPFV.3MS word.GEN day in-day-3MS  
 “The people shall go out (sg) and gather (pl) a day’s portion on each day.”

Since no significance can be drawn from the shift in number agreement on the verbs with a collective singular subject in (29)–(30), neither is there interpretive significance in the same agreement pattern with coordinate singular subjects. A pre-subject singular verb is simply the default pattern.

Regarding plural verbs, Revell employs a shotgun approach to account for the distribution, postulating three distinct motivations: to mark the conjuncts as equal actors, to downplay the narrative significance of an action, and to mark a terminal clause of a narrative

<sup>30</sup> There are 80 examples with a singular verb: Gen 41:55; Exod 1:20; 4:31; 5:12; 12:27, 34; 13:17; 14:5; 15:16[x2]; 16:4; 17:2, 3[x2], 6; 18:13, 15; 19:9, 23; 20:18, 21; 32:1[x2], 6, 7, 21, 31; 33:4; 36:6; Num 11:2, 32; 20:1, 3; 21:5, 7; 21:14; 25:1, 2; Deut 4:33; 9:12; 28:33; 31:16; Josh 6:20[x2]; 24:16, 21; Judg 9:42; 21:2, 9; 1 Sam 4:3, 4; 9:13; 11:12; 13:6, 8, 11; 14:26[x2], 28, 30, 31, 32[x2], 45; 15:15, 21; 17:27; 2 Sam 1:4; 18:3, 6, 16; 19:3, 4; 1 Kgs 8:44; 12:27; 16:16, 22; 2 Kgs 6:30; 7:16; 8:21. There are 41 examples with a plural verb: Exod 14:31; 15:24; 16:30; Lev 20:4; Num 11:8, 35; 12:16; 14:1, 11, 39; Josh 4:10; 6:20; 8:13; 24:24; Judg 2:4, 7; 11:11; 16:24; 21:4; 1 Sam 6:19; 8:19; 13:4, 6; 14:40, 45; 17:30; 30:6; 2 Sam 14:15; 17:29; 1 Kgs 12:5, 16, 30; 18:21, 36, 37; 2 Kgs 7:17, 20; 12:4; 14:4; 15:4, 35.

<sup>31</sup> This is the same percentage as in FCA examples (cf. footnote 26). There are 25 examples with a subsequent plural *pro*-drop verb: Exod 1:20; 4:31; 12:27; 13:17; 16:4; 17:2; 19:9; 20:18; 32:1, 6; 32:31; 33:4; Num 11:32; 20:3; 21:7; 25:2; Deut 9:12; Josh 6:20[x2]; Judg 9:42; 21:2; 1 Sam 4:4; 14:32; 1 Kgs 8:44; 2 Kgs 7:16. And there are 3 examples with a subsequent singular *pro*-drop verb: Exod 17:3; Deut 31:16; Josh 24:16.

(1993:73–74, 77–78). His account suffers at both the theoretical and empirical level. At the theoretical level, he does not show what the three motivations have in common. This is a significant issue, because without a unifying factor each proposed motivation for a plural verb adds theoretical complexity, which should be abandoned if a simpler theory presents itself.

Even a shotgun approach cannot account for all of the empirical data. First, if a plural verb marks the narrative terminus, then a singular verb should not be used in the same position, but this does happen.<sup>32</sup> After Saul’s first military victory (1 Sam 11:1–11) and being crowned king (11:12–15), (31) is the final statement before transitioning to Samuel’s farewell address in the next chapter.

- (31) וַיִּשְׂמַח שָׁם שָׁאוּל וְכָל־אֲנָשֵׁי יִשְׂרָאֵל עַד־מְאֹד: (1 Sam 11:15)  
*wayyiśmah šām šā’ûl wə-kol ’anšê yiśrā’el ‘ad mə’ōd*  
 rejoice.WCIPFV.3MS there Saul and-all.GEN men.GEN Israel until very  
 And Saul and all the people of Israel rejoiced (sg) greatly there.

Similarly, after presenting the plunder of Rabbah as an example of what David did to all of the Ammonite cities (1 Chron 20:1–3), (32) is the final statement before transitioning to an account of how many Philistine giants were killed (20:4–8).

- (32) וַיָּשָׁב דָּוִד וְכָל־הָעָם יְרוּשָׁלַם: (1 Chron 20:3)  
*wayyāšob dābîd wə-kol hā-‘ām yərûšālāim*  
 return.WCIPFV.3MS David and-all.GEN ART-people Jerusalem  
 Then David and all of the people returned (sg) to Jerusalem.

One could argue that the discourse primacy of the first conjuncts in (31)–(32) overrides the concern for marking the narrative terminus. But, if so, why would a terminus ever be marked with a plural verb? Perhaps such a verb coincides with conjuncts that are presented as equal actors, but in such a case the narrative terminus would not be the true motivation for the plural number on the verb.

<sup>32</sup> In addition to the two examples in (31)–(32), see also 2 Sam 12:31.

Second, a plural verb does not always mark conjuncts as equal actors. On at least two occasions, a plural verb is followed by a singular *pro*-drop verb. The referent of *pro* is the first conjunct in (33) and, surprisingly, the second conjunct in (34).

- (33) וַיִּקְהָלוּ מִנֶּשֶׁה וְאַהֲרֹן אֶת־הַקְּהָל אֶל־פְּנֵי הַסֵּלַע וַיֹּאמֶר לָהֶם (Num 20:10)  
*wayyaqhlū mōšê wə-’ahārōn ’et haq-qāhāl ’el pānē*  
 assembly.WCIPFV.3MP Moses and-Aaron ACC ART-assembly to face.GEN  
*has-sāla’ wayyō’mer lā-hem*  
 ART-rock say.WCIPFV.3MS to-3MP  
 Moses and Aaron assembled the assembly before the rock, and he said to them.
- (34) וַיַּעַשׂוּ־כֵן מִנֶּשֶׁה וְאַהֲרֹן כַּאֲשֶׁר | צִוָּה יְהוָה וַיֵּרָם בַּמַּטֵּה וַיִּדְ אֶת־הַמַּיִם  
 (Exod 7:20)  
*wayya’āsū kēn mōšê wə-’ahārōn ka’āšer šiwwā yhwh*  
 do.WCIPFV.3MP thus Moses and-Aaron just.as command.PFV.3MS YHWH  
*wayyārem bam-mattē wayyaq ’et ham-mayim*  
 raise.WCIPFV.3MS in.ART-staff strike.WCIPFV.3MS ACC ART-water  
 Moses and Aaron did thus, just as YHWH had commanded, and he raised the staff and struck the water.

Regarding (33), God tells Moses what to do (Num 20:7–8), and Moses is the explicit sole actor in the flanking verses (20:9, 11), indicating that he is the referent of the singular *pro*-drop verb. But in (34), God instructs Moses in the previous verse to tell Aaron to stretch out his staff over the water (Exod 7:19), indicating that Aaron is the referent of the singular *pro*-drop verb. If the initial plural verb marks the conjuncts as equal actors, it is unclear how it could be followed by a singular verb, let alone that the referent of *pro* could be either the first or second conjunct.

The significant data of (33)–(34) provide one further caution for discourse analysis. De Regt (1996, 2016) shows that the central participant in the narrative is listed first in a coordinate NP. When Moses and Aaron do something together, Moses is always listed first<sup>33</sup>; the only exceptions are in genealogical lists, where Aaron as the older brother takes precedent

<sup>33</sup> Exod 4:29; 5:1, 4; 6:27; 7:6, 10, 20; 8:8; 10:3; 11:10; 12:28, 43; 16:6; Lev 9:23; Num 1:17, 44; 3:39; 4:37, 41, 45; 14:5; 16:18; 17:8; 20:6, 10; 26:64; 33:1; Pss 77:21; 99:6.

(Exod 6:20; Num 3:1; 26:59). This view of the discourse salience of the first conjunct coincides with the syntactic prominence of the first conjunct within the hierarchical structure of coordination. Nevertheless, it could be pressed too far. Within the context of (34), Moses continues to be the conduit of divine instruction, but it is Aaron who turns the Nile into blood.

The traditional approach within discourse analysis views a singular verb as marking the first conjunct as the principal actor while a plural verb marks both conjuncts as equally involved in the action. However, an approach that views everything as marking interpretive significance leads to a number of problems, as we have already seen. Instead, what is needed is to establish the baseline of default number agreement within different syntactic constructions, and then to interpret the discourse significance of departing from the default.

### **8.3.2 A Positive Discourse-Analysis Account**

For the verbal agreement data in BH, discourse analysis must start with the assumption that there is nothing significant about a singular verb in a VS clause or a plural verb in an SV clause. Those are the default options, provided the first conjunct is an R-expression. Moreover, applying what Miller has suggested regarding another phenomenon that intersects with coordination, discourse analysis must be conducted “within specific syntactic environments” (2007b:60). Two syntactic distinctions are particularly relevant: whether the initial conjunct is an R-expression or pronoun, and whether the verb is in an SV or VS clause.

The first three of the following subsections address verbal agreement with compound subjects: coordinate structures with an initial R-expression. We will look at VS clauses that have a singular verb (§8.3.2.1), SV clauses that have a singular verb (§8.3.2.2), and VS clauses that have a plural verb (§8.3.2.3). Then, we will examine post-verbal compounds with an initial pronoun (§8.3.2.4).

### 8.3.2.1 R-expression VS Clauses with a Singular Verb

Since a singular verb in a VS clause is the default option, there is no interpretational significance to the number agreement on the verb. Nevertheless, while the form of the verb itself may not be significant, there are a couple aspects within the coordinate NP that should be considered for exegetical payoff.

First, the order of the conjuncts can be significant.<sup>34</sup> In (21), copied from above, it is significant that Miriam is listed first.<sup>35</sup> Thus, while Holmstedt (2009:124) and Shepherd (2011:117–118) err in pointing to the singular verb as the sign of her prominence—a fact confirmed by the subsequent *pro*-drop verb being plural (וַיֹּאמְרוּ in Num 12:2)—they are still right that Miriam is prominent in the discourse.

- (21) וַתְּדַבֵּר מִרְיָם וְאַהֲרֹן בְּמֹשֶׁה (Num 12:1)  
*wattəḏabbēr miryām wə-’ahārōn bə-mōšē*  
speak.WCIPFV.3FS Miriam and-Aaron in-Moses  
Miriam and Aaron spoke (sg) against Moses.

Shepherd (2011:118) explains Miriam’s prominence: “Miriam, not Aaron, is the one struck with leprosy. She bears the judgment for the two of them (Num 12:11). Miriam, not Aaron, requires Moses’ intercession and a seven-day quarantine (Num 12:13–15; cf. Lev 13).... The text of Deut 24:9 urges remembrance of what the LORD did to Miriam, not Aaron, when the people came out of Egypt.” It is important to note, however, that Miriam’s prominence is indicated by the order of conjuncts, not by the singular number agreement on the verb.

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<sup>34</sup> In this regard, I agree with the following sentiment of de Regt (1999:35): “When a preceding verb is in the singular, this verb does not indicate that the first-mentioned subject ... is the initiator of the action. The order in the constituent already marks the first mentioned subject as more central in the context, irrespective of the verb.”

<sup>35</sup> This significance can be seen most clearly by contrasting how Miriam is presented elsewhere. When she is first mentioned by name, she is called “the prophetess” (Exod 15:20) and plays a prominent role in leading the women in singing a celebration song after crossing the sea (15:21), yet even there she is identified as “the sister of Aaron” (15:20). Whenever she is mentioned in the narrative alongside her brother(s), she is always listed last (Num 12:4, 5; Mic 6:4). Even in genealogical lists where Aaron appears before Moses to reflect their birth order, Miriam is still listed last (1 Chron 5:29) and called “their sister” (Num 26:59), even though she is older than Moses (assuming Miriam is Moses’ unnamed sister in Exod 2:1–10).

But as was discussed at the end of §8.3.1, conjunct order itself does not necessarily signal discourse prominence either. Instead, it is better to say that the syntactic and cognitive prominence of the first conjunct can be exploited or suppressed for narrative purposes. Recalling again the data of (31)–(32) where the compound *Moses and Aaron* is the subject of clause-initial plural verbs, it is *Moses* who occurs in the syntactic-prominent first position both times. His salience is exploited in (31) with him being the referent of the subsequent singular *pro*-drop verb, but it is overcome in (32) with Aaron being the referent of the subsequent singular *pro*-drop verb. Without the broader context, (32) would sound like Moses is the one who strikes the water, but with the proper context, the salience of the first conjunct can be suppressed, and even overcome.

Sometimes, the subjects are listed simply so that the prominence of the first conjunct can be exploited in the subsequent narrative. In the previous context of (35), *the man and woman* is the referent of the four plural *pro*-drop verbs: וַיִּדְעוּ ... וַיִּתְפְּרוּ ... וַיַּעֲשׂוּ ... וַיִּשְׁמְעוּ (Gen 3:7–8). There is no possible confusion for who could be hiding from God in (35), so listing the conjuncts is an example of over-specification. This sets the stage for drawing out the prominence of the man in the following verses.

- (35)      וַיִּתְחַבְּא הָאָדָם וְאִשְׁתּוֹ מִפְּנֵי יְהוָה אֱלֹהִים בְּתוֹךְ עֵץ הַגָּן: (Gen 3:8)  
 wayyitḥabbē'                      hā-'ādām wə-'išt-ō                      mip-pənē                      yhwḥ  
 hide.oneself.WCIPFV.3MS ART-man and-woman-3MS from-face.GEN YHWH  
 'ēlōhîm bə-tôk                      'ēš                      hag-gān  
 God      in-midst.GEN tree.GEN ART-garden  
 The man and his wife hid themselves (sg) from the face of YHWH God in the  
 midst of the garden.

While Shepherd (2011:108–109) believes that FCA in (35) marks the man as the main character, this has already been shown to be insignificant as the default option in a VS clause; nevertheless, Adam is still prominent in this shameful act of hiding. He is listed first, and

Eve’s significance comes in connection to him as “his wife.” God had commanded Adam not to eat of the tree (Gen 2:16–17) before Eve was even formed (2:21–22), so now he calls him by name and questions him individually (3:9). God seems to hold Adam primarily responsible, a fact that the man accepts briefly—“I feared (וַאֲרָא), because I (אֲנִי) was naked, and I hid myself (וַאֲחַבֵּי)” (3:10)—before shifting the blame onto the woman God gave him (3:12).

Similarly, the salience of the first conjunct can be manipulated for narrative prominence by means of using a subsequent singular *pro*-drop verb, illustrated in (36)–(37).<sup>36</sup>

- (36) וַיֵּסַע יִשְׂרָאֵל וְכָל־אֲשֶׁר־לוֹ וַיָּבֹא בְּאֶרֶץ שֶׁבַע וַיִּזְבַּח זְבָחִים לֵאלֹהֵי אָבִיו יִצְחָק:  
(Gen 46:1)

wayyissa<sup>ʿ</sup>                      yisrāʿel wə-kol                      ʾāšer l-ô                      wayyābō<sup>ʿ</sup>  
travel.WCIPFV.3MS Israel and-all.GEN which to-3MS come.WCIPFV.3MS  
bəʿer-â                      šāba<sup>ʿ</sup> wayyizbaḥ                      zəbāḥîm lē-ʾlōhê                      ʾābî-w  
well-LOC oath sacrifice.WCIPFV.3MS sacrifices to-God.GEN father-3MS  
yishāq

Isaac

Israel and all who were with him travelled (sg) and came (sg) to Beersheba and sacrificed (sg) sacrifices to the God of his father Isaac.

- (37) וַיֵּלֶךְ דָּוִד וְאֲנָשָׁיו קַעֲיִלָה וַיִּלָּחֶם בַּפְּלִשְׁתִּים וַיִּנְהַג אֶת־מִקְנֵיהֶם וַיֵּד בָּהֶם מִבָּה וַיִּדּוּלָה  
(1 Sam 23:5a)

wayyēleḵ                      dāwīd wa-ʾanāšāy-w                      qəʾilā wayyillāhem  
walk.WCIPFV.3MS David and-men-3MS (Qe) Keilah fight.WCIPFV.3MS  
bap-palištîm                      wayyinhaḡ                      ʾet miqnê-hem                      wayyak  
in.ART-Philistines drive.WCIPFV.3MS ACC livestock-3MP strike.WCIPFV.3MS  
bā-hem makkâ ḡəḏôlā  
in-3MP blow great

David and his men went (sg) to Keilah and fought (sg) against the Philistines and drove (sg) their livestock and struck (sg) a great blow among them.

In both (36) and (37), not only are there multiple singular *pro*-drop verbs after the conjuncts are listed, but the whole context promotes the narrative salience of the initial conjunct. In the

<sup>36</sup> For other examples with a subsequent singular verb, see Exod 18:5–6; 1 Sam 17:34; 2 Sam 16:14; 2 Kgs 10:23.

subsequent narrative of (36), God comes to Israel in a vision (Gen 46:2–4) before he sets out from Beersheba, being carried by his sons down to Egypt (46:5–7).

In the surrounding narrative of (37), God tells David to fight the Philistines even though his men are afraid (1 Sam 23:1–4), and David is credited with the victory: “So David saved the inhabitants of Keilah” (23:5b). In the subsequent verses, David flees from Keilah, because he hears that Saul is coming to besiege the city, and God tells him that the inhabitants will surrender him into Saul’s hand (23:6–14). In (36)–(37), the salience of the initial conjunct is marked, not by the initial singular verb but by the subsequent singular *pro*-drop verbs, and is reflected in the broader context.

We have seen multiple examples of the narrative salience of the first conjunct within FCA structures. But it is not the number on the verb that signals the prominence of the initial conjunct. Rather, the first conjunct already holds a prominent syntactic position, and its cognitive salience can be enhanced with conjunct binding. The salience of the initial conjunct can be exploited for narrative importance in the subsequent context, especially if the following actions are indicated by singular *pro*-drop verbs.

### **8.3.2.2 R-expression SV Clauses with a Singular Verb**

Even though HCA is rare, there are a total of four syntactic and semantic reasons for why the verb is singular, even in an SV clause. These data were referenced in §8.2.2, but they are demonstrated for the first time here. Two syntactic reasons that require HCA are right node raising (38)<sup>37</sup> and an existential verb (39).<sup>38</sup>

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<sup>37</sup> I have noted no other instances of RNR producing HCA in my corpus of Genesis–2 Kings.

<sup>38</sup> According to Wilson (2020b:109–131), one must distinguish between existential and predicational uses of *hyh* based on whether the THING (predicational) or LOCATION (existential) is primarily in view. In (39), Hezekiah is concerned only about his own days, making it an existential clause. See also Gen 9:2; Lev 11:36; Num 15:16; Ezek 45:5; Zech 8:19.

- (38) כָּל־הַבָּא אֶל־הַאֹהֶל וְכָל־אֲשֶׁר בָּאֵהֶל יִטְמָא שִׁבְעַת יָמִים: (Num 19:14)  
*kol hab-bā' 'el hā-'ōhel wə-kol 'āšer bā-'ōhel*  
 all ART-come.PTCP.MS to ART-tent and-all that in.ART-tent  
*yitmā' šib'at yāmim*  
 unclean.IPFV.3MS seven.GEN days  
 Everyone who comes INTO THE TENT <shall be unclean seven days> and  
 everyone who is IN THE TENT – shall be unclean (sg) seven days.
- (39) וְאִמְרָה הֲלוֹא אִם־שָׁלוֹם וְאִמְתַּ יְהִיָּה בְיָמַי: (2 Kgs 20:19)  
*wayyō'mer hā-lō' 'im šālôm we-'ēmeṭ yihyê bə-yām-āy*  
 say.WCIPFV.3MS INTER-NEG if peace and-truth be.IPFV.3MS in-days-1CS  
 “Shall [it] not be [good], if there is (sg) peace and truth in my days?”

The verb in (38) is singular, because the subject NPs actually occur in different clauses; clausal reduction makes it look like they form a coordinate NP that agrees with a singular verb. Example (39) patterns like an English existential clause (40), which employs an expletive subject *there*.

- (40) There is/\*are a pen and a pencil on the desk.

Holmstedt (2009:125) says that BH exhibits an equal number of singular and plural verbs in existential constructions, but it hardly seems like a fact that needs a discourse explanation.

It is also important to acknowledge that there are semantic reasons why the verb in an SV clause is singular. Two instances of such are when the conjuncts are synonyms (41)<sup>39</sup> or together form a single idea (42).<sup>40</sup>

- (41) וְאִמְרָתָּ בְלִבְבְּךָ כְּחִי וְעֵצֶם יְדֵי עֲשָׂה לִי אֶת־הַחַיִּל הַזֶּה: (Deut 8:17)  
*wə-'āmartā bī-ləbābe-kā kōh-î wə-'ōsem yād-î*  
 say.WCPFV.2MS in-heart-2MS strength-1CS and-might.GEN hand-1CS  
*'āsā l-î 'et ha-ḥayil haz-zê*  
 do.PFV.3MS to-1CS ACC ART-wealth ART-this  
 “And you say in your heart, ‘My strength and the might of my hand has made (sg) me this wealth.’”

<sup>39</sup> See also Gen 9:2; Num 15:16; Isa 47:10; 48:5; 51:3; Jer 5:30; 6:7; Hos 10:8; Pss 55:6; 87:5.

<sup>40</sup> See also Exod 9:31; 10:24; Lev 11:35; Num 11:22; Isa 32:14 Jer 49:24; Ezek 5:17; 7:15; Hos 4:11; 9:2; Hab 1:7; Prov 23:21; 27:9; 29:15; Eccl 9:11; Esth 4:3, 14.

- (42) וַכֶּסֶף וַזָּהָב יִרְבֶּה-לָּךְ (Deut 8:13)  
*wə-kesep̄ wə-zāhāb̄ yirbē lā-k̄*  
 and-silver and-gold multiply.IPFV.3MS to-2MS  
 “... and silver and gold multiply (sg) to you.”

As is the case in (41), the coordinated synonyms that occur before a singular verb are usually abstract nouns. Coordination of any abstract nouns, let alone synonyms, hardly creates a plural referent. On the other hand, in (42), *silver* and *gold* are concrete nouns. But they are just different manifestations of wealth, so once again coordination of the two does not necessarily yield a plural referent. Hence, semantics can play a role in verbal agreement, in which case it would be illegitimate to explain HCA with a discourse element.

After bracketing off the data where the singular verb seems to be required by syntax or semantics, there are two types of remaining HCA data that may have discourse relevance. Here the conjuncts are non-synonymous concrete nouns, which refer to specific people in (12),<sup>41</sup> repeated below, but refer generically to kinds of people in (43).<sup>42</sup> The first conjunct appears to be the principal actor in (12) but not in (43).

- (12) וַיֹּאבֵד וַאֲבִישַׁי אָחִיו רָדַף אַחֲרַי שְׁבַע (2 Sam 20:10)  
*wə-yō'āb̄ wa-'ābīšay 'āh-îw rādap̄ 'ahārē šeba'*  
 and-Joab and-Abishai brother-3MS chase.PFV.3MS after Sheba  
 Joab and Abishai his brother chased (sg) after Sheba.

- (43) הַטְּמֵא וְהַטְּהוֹר יַחְדָּו יֹאכְלֵנוּ: (Deut 12:22)  
*haṭ-ṭāmē' wə-haṭ-ṭāhōr yaḥdāw yō'kāl-ennū*  
 ART-unclean and-ART-clean together eat.IPFV.3MS-3MS  
 “The unclean and the clean together shall eat (sg) it.”

Neither the clean or unclean party is prominent in (43); indeed, they are to eat *together*. However, in (12), Joab is prominent. In response to the uprising of Sheba, David summons Amasa, who was formerly Absalom's general, to summon the army (2 Sam 20:4). When he

<sup>41</sup> For other HCA examples with a narrative-prominent first conjunct, see Exod 21:4; Neh 6:12.

<sup>42</sup> For other HCA examples without a narrative-prominent first conjunct, see Gen 35:11; Lev 7:24; 11:35; Deut 12:15; Jer 49:24.

delays, David tasks Abishai with gathering men to pursue Sheba (v. 6). In the verses leading up to (12), Joab finds Amasa and kills him (vv. 8–10), and in the subsequent verses that recount the death of Sheba (vv. 11–26), Joab is mentioned by name twelve times while Abishai is not referred to even once.

The singular verb in (12) contrasts with the default plural form in (44). The two form a minimal pair, because the pre-verbal conjuncts are identical: *Joab and Abishai his brother*.

- (44) וַיִּזְאָב וַאֲבִישַׁי אֶחָיו הִרְגוּ לְאַבְנֵר עַל אֲשֶׁר הִמִּית אֶת־עֲשָׂהָאֵל אֶחִיהֶם בְּגִבְעוֹן  
 בַּמִּלְחָמָה: (2 Sam 3:30)  
 wə-yô 'āḇ wa-'ābīšay 'āh-îw hārəgū lə-'abnēr 'al 'āšer  
 and-Joab and-Abishai brother-3MS slay.PFV.3MP to-Abner on that  
 hēmîṭ 'et 'āsâ'ēl 'āhî-hem bə-gīb 'ôn bam-milhāmâ  
 kill.PFV.3MS ACC Asahel brother-3MP in-Gibeon in.ART-battle  
 Joab and Abishai his brother slew (pl) Abner, because he had killed Asahel  
 their brother at Gibeon in battle.

Surprisingly, Joab is also uniquely prominent in the act of slaying Abner, but the verb is plural by default in (44) due to the SV word order. In fact, Abishai is last mentioned in 2 Sam 2:24, where he and Joab pursue Abner, but it is Joab alone who strikes Abner (3:26–28). Nevertheless, David pronounces a curse on the whole house of Joab's father, which would include Abishai (3:29), and the narrator does call Asahel “*their* brother” (3:30). Thus, Joab and Abishai had the same motivation (avenging their brother's death), which is why they both receive a curse. So the narrator says that they both slew Abner, even though technically Joab was the lone actor in doing the actual slaying.

Looking again at the HCA data that have a prominent first conjunct, the nouns refer to specific persons; moreover, the second conjunct is always bound to the first, solidifying the saliency of the first conjunct, whether it is an R-expression in (12)<sup>43</sup> or a pronoun in (13).<sup>44</sup>

<sup>43</sup> See also Exod 21:4.

<sup>44</sup> See also 2 Kgs 4:7; Neh 5:14.

- (13) גַּם-אֲנִי וְנַעֲרֹתַי אֲצִיּוֹם כֵּן (Esth 4:16a)  
*gam 'ānī wə-na'ārōt-ay 'āšūm kēn*  
 also I.NOM and-young.women-1CP fast.IPFV.1CS thus  
 “Also I and my young women will fast (sg) in this way.”

Esther is prominent in the context, as it is her life alone that is in jeopardy if she enters to see the king without being called: וְכִאֲשֶׁר אֲבִדְתִּי אֲבִדְתִּי “And if I perish, I perish” (Esth 4:16b).

Admittedly, the data are few,<sup>45</sup> but the consistent pattern represented by (13)–(14) does give some reason to doubt the singular verb in (45), because there is no conjunct binding. Indeed, the form שָׂכְרוּ could be re-pointed as שָׂכְרוּ, a plural verb with a *pro*-drop complement, as reflected in the Old Greek: ἐμισθώσαντο.

- (45) וְאֶזְכְּרָה וְהִנֵּה לֹא-אֱלֹהִים שְׁלָחוּ כִּי הִנְבוֹאָהּ דִּבֶּר עָלַי וְטוֹבִיָּה וְסַנְבַּלֵּט שְׂכְרוּ:  
 (Neh 6:12)  
*wā'akkîrā wə-hinnē lō' 'ēlōhîm šālāḥ-ô kî*  
 recognise.WCIPFV.1CS and-behold NEG God send.PFV.3MS-3MS because  
*han-nəḇû'â dibber 'āl-ay wə-tōḇiyyâ wə-sanballat*  
 ART-prophecy speak.PFV.3MS on-1CS and-Tobiah and-Sanballat  
*šəḵār-ô*  
 hire.PFV.3MS-3MS  
 “I recognised and, behold, God had not sent him, because he had spoken the prophecy against me, and Tobiah and Sanballat had hired (sg) him.”

Nevertheless, there are some indicators in the context of (45) that point to the discourse saliency of Tobiah. A singular pronoun refers back to the same repeated conjuncts two verses later in the phrase כַּמַּעֲשָׂיו “according to his deeds” (6:14), and in the following narrative only Tobiah is mentioned by name (6:17[x2], 19). Moreover, before this narrative, Sanballat was always listed before Tobiah (2:10, 19; 4:1; 6:1), so it seems significant in (45) that Tobiah is listed first, even if the verb should perhaps be repointed with plural agreement morphology.

<sup>45</sup> Moreover, there is a possibility in all of these examples that the conjuncts form a left-dislocated phrase that is outside of the clause (Holmstedt 2014), in which case they would not be sentential subjects. However, the basic conundrum would still stand with the resumptive element not matching in number with the dislocated phrase.

We have seen that a singular verb in an SV clause can be required for syntactic or semantic reasons. Considerations of discourse analysis should apply only when the conjuncts are non-synonymous concrete nouns. Surprisingly, even within this limited purview, the only pattern that emerges is that the initial conjunct in HCA constructions is discourse-prominent when both conjuncts refer to specific people.

### 8.3.2.3 R-expression VS Clauses with a Plural Verb

There is limited significance regarding a singular verb in an SV clause, but there does not seem to be any discourse significance regarding a plural verb in a VS clause. It is not possible to sustain a view that the plural verb always marks the conjuncts as equal actors. In §8.3.1, we saw two instances of a plural verb that is followed by a singular *pro*-drop verb, the referent of *pro* being the first conjunct in Num 20:10 and the second conjunct in Exod 7:20.

Plural verbs in VS clauses do tend to occur when the conjuncts are both discourse-active in the near previous context.<sup>46</sup> Recalling previous data in a condensed version, the laying on of hands with the first sacrifice is expressed with a singular verb (3), and once the stage has been set, the same act with the same actors is expressed with a plural verb in the second sacrifice (4).

- (3)      וַיִּסְמְדוּ אֶהֱרֹן וּבָנָיו אֶת־יְדֵיהֶם עַל־רֹאשׁ פֶּרֶן הַחֲטָאתָ: (Lev 8:14)  
 Aaron and his sons laid (sg) their hands on the head of the bull of the sin offering.
- (4)      וַיִּסְמְכוּ אֶהֱרֹן וּבָנָיו אֶת־יְדֵיהֶם עַל־רֹאשׁ הָאֵילִ: (Lev 8:18)  
 Aaron and his sons laid (pl) their hands on the head of the ram.

Thus, repeated actions, or actions with already-established conjuncts, tend to be expressed with a plural verb in a VS clause. Nevertheless, this tendency is not automatic, as pointed out with these data in §8.3.1. While the three sacrifices in Leviticus are expressed with a singular

<sup>46</sup> See Exod 5:1; 7:20; 15:23; 29:15; 34:31; Lev 6:9; 8:18, 22; Num 20:10; 31:13 Deut 21:19; Josh 8:15; Judg 8:12; 1 Sam 31:7; 2 Sam 2:24, 32; 1 Kgs 8:63; 2 Kgs 3:12.

(8:14), then plural (8:18), and then plural verb (8:22), the same three sacrifices in Exodus are expressed with a singular (29:10), then plural (29:15), and then *singular* verb (29:19).

Moreover, there are a handful of examples like (46) where the conjuncts are not discourse-active within the preceding near context, and yet the verb is plural.<sup>47</sup>

- (46) וְרָחֲצוּ אֶהָרֶן וּבְגָדָיו מִמֶּנּוּ אֶת־יְדֵיהֶם וְאֶת־רַגְלֵיהֶם: (Exod 30:19)  
*wārāḥṣû 'ahārōn û-bġāy-w mim-mennû 'et yadê-hem*  
 wash.WCPFV.3MP Aaron and-sons-3MS from-3MS ACC hands-3MP  
*wə-'et raġlē-hem*  
 and-ACC feet-3MP  
 “And Aaron and his sons shall wash (pl) their hands and their feet from it.”

Regarding (46), Aaron was last mentioned nine verses earlier (Exod 30:10), and his sons are not mentioned previously in the chapter at all, hardly qualifying for being discourse-active.

Another reported tendency is that if a constituent “occurs between the predicate and the compound subject, the predicate often agrees with the compound subject” (BHRG §35.10; cf. Levi 1987:50). This tendency is exemplified in (47) with the plural verb in a VS clause.

- (47) וַיִּחַנְכוּ אֶת־בֵּית יְהוָה הַמֶּלֶךְ וְכָל־בְּנֵי יִשְׂרָאֵל: (1 Kgs 8:63)  
*wayyaḥnəḵû 'et bêt yhwh ham-melek wə-kol*  
 dedicate.WCIPFV.3MP ACC house.GEN YHWH ART-king and-all.GEN  
*bānê yiśrā'ēl*  
 sons.GEN Israel  
 The king and all children of Israel dedicated (pl) the house of YHWH.

Whether the compound subject is contiguous to the verb does seem to affect number agreement on the verb. When the compound subject is contiguous to the verb in a VS clause, the verb is rarely plural (9%); however, if the conjuncts are non-contiguous to the verb in a VS clause, the verb actually tends to be plural (55.6%).<sup>48</sup>

<sup>47</sup> Cf. Gen 40:1; Exod 40:31; Josh 14:1; 19:51.

<sup>48</sup> There are 8 examples where the verb is still singular (Gen 35:27; Exod 15:16; 27:21; Num 26:60; Judg 14:3; 1 Sam 22:3; 1 Kgs 1:34; 2 Kgs 18:18), but there are 10 examples where the verb is plural (Exod 7:20; 14:9, 23; 34:31; 40:31; Deut 21:19; Josh 14:1; 2 Sam 2:32; 1 Kgs 8:63; 2 Kgs 3:12).

Another way to describe the above tendency is as an adjacency effect, which has cross-linguistic attestation. Benmamoun et al. (2009:21–22) report that strict adjacency is required for FCA in Tsez, and while it is not required in Hindi, full agreement is more preferable when any material intervenes between the verb and compound subject, and FCA becomes less and less likely as more material intervenes.

We have seen that although the verb is usually singular in VS clauses (86.5%), there are two factors that can increase the likelihood of full agreement. The first can be described as a discourse factor, as plural verbs more frequently occur in VS clauses when the conjuncts are already discourse-active. The second is a syntactic factor, as full agreement is more likely than partial agreement in VS clauses when material intervenes between the verb and compound subject. Nevertheless, while these observations give a fuller understanding of number agreement in VS clauses and what may be motivating the plural-verb examples, there is nothing that points to exegetical significance of the verb being plural in any of these cases.

#### 8.3.2.4 Post-Verbal Compounds with an Initial Pronoun

There is a distinction between coordinate structures with an initial R-expression, which function as subjects, and those with an initial pronoun in a post-verbal position, which function as adjunct quantification phrase (QPs) (see §8.2.3). When the compound is a QP, the subject of the clause is usually *pro*. When *pro* is singular, it is coindexed with and resumed by the initial singular pronoun (17); however, when *pro* is plural, it is coindexed with and resumed by the entire coordinate complex (18).

- (17) וַיִּחַלֵּק עֲלֵיהֶם | לַיְלָה הוּא וְעַבְדָּיו (Gen 14:15)  
*wayyēḥālēq                    ʾālē-hem laylā hū'                    wa-ʾāḇādāy-w*  
 divided.WCIPFV.3MS on-3MP night he.NOM and-servants-3MS  
 He was divided against them at night, he and his servants.

- (18) וַיֹּאכְלוּ וַיִּשְׂתּוּ הוּא וְהָאֲנָשִׁים אֲשֶׁר-עִמּוֹ (Gen 24:54)  
*wayyō kəlū wayyištū hū wə-hā-’ānāšîm ’āšer ’imm-ô*  
 eat.WCIPFV.3MP drink.WCIPFV.3MP he.NOM and-ART-men which with-3MP  
 They ate and drank, he and the men who were with him.

While there has proven to be little discourse significance to the number of a verb with the R-expression data (§8.3.2.1–3), the pronoun data in this section present a different situation.

This syntactic distinction has not been properly incorporated into previous discourse analyses. It has already been shown in §8.3.1 that although Revell (1993) distinguishes between different syntactic constructions, it does not impact his analysis. Similarly, Shepherd recognises various constructions with a singular verb (2011:109–111), yet he maintains one undifferentiated conclusion: “These constructions serve to set the major characters apart from the minor ones” (2011:111). This interpretation simply does not fit with the R-expression data, but it is apt for describing the pronoun data.

A coordinate compound headed by a pronoun is not the subject; rather, it is a phrase that quantifies the true subject. In these instances, a singular verb is actually significant, because it signals that the subject is singular, which is coindexed with the initial singular pronoun. Other actors are included in the action, but they are not upgraded to the status of subject (48).

- (48) וַיֹּאמֶר יְהוָה לְנֹחַ בֹּא-אֶתְּךָ וְכָל-בֵּיתְךָ אֶל-הַתֶּבֶה כִּי-אֶתְּךָ רָאִיתִי צַדִּיק לְפָנַי  
 בְּדוֹר הַזֶּה: (Gen 7:1)  
*wayyō ’mer yhwh la-nōaḥ bō’ ’attā wə-kol*  
 say.WCIPFV.3MS YHWH to-Noah come-IMP.2MS you.NOM.MS and-all.GEN  
*bētā-kā ’el hat-tēbā kī ’ōtā-kā rā’îṭî ṣaddîq ləpān-ay*  
 house-2MS to ART-ark because ACC-2MS see.PFV.1CS righteous before-1CS  
*bad-dôr haz-zê*  
 in.ART-generation ART-this  
 YHWH said to Noah, “Come (sg), you and all of your house, into the ark,  
 because I have seen that you are righteous before me in this generation.”

The entire flood account hinges on the verse, “But Noah found favour in the eyes of YHWH” (Gen 6:8). The reason for Noah’s favourable standing is given in the next verse,

“Noah was a righteous man” (6:9). Example (48) occurs in the following chapter to communicate the same sentiment. Noah’s whole house may enter the safety of the ark as beneficiaries of Noah’s righteousness. (Note אָתָּא, which is fronted for contrastive Focus in the ground clause.)

Since the pronoun indicates the primary actor of the singular verb, it is not surprising that examples of a subsequent *pro*-drop verb are usually likewise singular (73.5%), as in (49).<sup>49</sup> This is in sharp contrast to FCA examples, where the subsequent verb is plural 89.7% of the time (see footnote 26).

- (49) וַיִּקָּם דָּוִד וַיֵּלֶךְ | הוּא וְאֲנָשָׁיו וַיֵּדְּ בַּפְּלִשְׁתִּים מֵאֲתָיִם אִישׁ וַיָּבֵא דָּוִד  
 אֶת־עֲרֻלְתֵיהֶם וַיִּמְלְאוּם לְמִלָּךְ לְהַתְּחַתֵּן בְּמִלָּךְ (1 Sam 18:27)  
 wayyāqom dāwīd wayyēlek hū’ wa-’ānāšāy-w  
 arise.WCIPFV.3MS David walk.WCIPFV.3MS he.NOM and-men-3MS  
 wayyak bap-pālišṭīm mā’ṭayim iṣ wayyābē’  
 strike.WCIPFV.3MS in.ART-Philistines two.hundred man bring.WCIPFV.3MS  
 dāwīd ’et ’orlōṭē-hem wayamal’û-m lam-melek  
 David ACC foreskins-3MP fill.WCIPFV.3MP-3MP to.ART-king  
 la-hiṭṭātēn bam-melek  
 to-be.son.in.law.INF in.ART-king  
 David arose and went (sg), he and his men, and struck (sg) two hundred men  
 among the Philistines, and David brought their foreskins and they were given  
 in full number to become the king’s son-in-law.

Regarding (49), Saul tries to get David killed by requiring a bride-price of one hundred Philistine foreskins (1 Sam 18:25). When David is successful, Saul gives Michal in marriage (18:27). Michal loves David (18:28), while Saul grows hardened as David’s enemy (18:29). The fact that David had men accompanying him on the Philistine raid is stated as an incidental fact.

<sup>49</sup> There are 25 examples with a subsequent singular *pro*-drop verb (Gen 6:18; 8:16; 14:15; 31:21; 35:6; Exod 12:30; Lev 25:41; Num 31:26; Deut 12:18; 14:26; 15:20; 16:11, 14; Josh 1:2; 7:10; Judg 8:4; 9:32; 11:38; 12:2; 1 Sam 18:27; 20:31; 2 Sam 9:10; 1 Kgs 20:12; 2 Kgs 5:15; 8:2), and there are just 9 examples with a subsequent plural *pro*-drop verb (Gen 17:9; Exod 3:18; 24:1; Lev 10:9; Num 20:8; Josh 7:6; 1 Sam 19:18; 28:8; 30:9).

The subsequent *pro-drop* verb is not always singular, however. When it is plural, the coordinate QP functions to shift the focus from the individual onto the group. Recalling a condensed version of (20), Joshua alone tears his garments, and he is the focus of falling on his face. But by mentioning the elders within the coordinate QP, the author is able to incorporate them within the communal expression of lament in lifting dust on their heads.

- (20) וַיִּקְרַע יְהוֹשֻׁעַ שָׁמַלְתָּיו וַיִּפֹּל עַל-פָּנָיו אֶרְצָה לְפָנָיו אֲרוֹן יְהוָה עַד-הָעֶרֶב הוּא וַיִּקְנִי יִשְׂרָאֵל וַיַּעֲלוּ עָפָר עַל-רֵאשָׁם: (Josh 7:6)

Joshua tore his garments and fell (sg) on his face to the ground before the ark of YHWH until the evening, he and the elders of Israel, and lifted (pl) dust on their heads.

Joshua continues to be narrative-prominent in the subsequent verses, conversing with God (Josh 7:7–15). By adding a reference to the elders in the coordinate QP, the author is able to portray the existential crisis of a communal lament after losing thirty-six men in war, yet also maintain Joshua as the human focal point of the narrative.

An initial plural verb does not necessarily mark the conjuncts as equal actors. In (50), which is a longer version of (18), the QP functions to explicate the plural *pro* reference. Abraham’s servant is not the exclusive subject referent, but he is prominent, since the men are qualified as those “who were with him,” and he is the sole referent of the later singular *pro-drop* verb וַיֹּאמֶר and of the object pronoun in שְׁלַחְנִי.

- (50) וַיֹּאכְלוּ וַיִּשְׂתּוּ הוּא וְהָאֲנָשִׁים אֲשֶׁר-עִמּוֹ וַיִּלְּנוּ וַיִּקְוּמוּ בַבֶּקֶר וַיֹּאמֶר שְׁלַחְנִי לְאֲדָנָי: (Gen 24:54)

wayyō *kālū* wayyištū hū’ wə-hā-’ānāšîm ’āšer ‘imm-ō  
eat.WCIPFV.3MP drink.WCIPFV.3MP he.NOM and-ART-men which with-3MP  
wayyālînu wayyāqûmû *bab-bōqer* wayyō *mer*  
spend.night.WCIPFV.3MP arise.WCIPFV.3MP in.ART-morning say.WCIPFV.3MS  
*šalləhū-nî la-’dōn-î*  
send.IMP.2MP-1CS to-lord-1CS

They ate and drank (pl), he and the men who were with him, and spent (pl) the night. They got up in the morning, and he said, “Send me to my lord.”

Moreover, it is not necessarily the case that both conjuncts with a plural verb are discourse-active (cf. Gen 37:10; Lev 10:14 Num 3:1; 20:19; 1 Sam 22:13; Josh 3:1). Regarding (50), the second conjunct, “the men who were with him,” seems to refer to some of Abraham’s other servants (Gen 24:10, 23), who were last mentioned in Gen 24:32, which was 22 verses earlier.

We have seen that in sentences with a post-verbal coordinate structure headed by a pronoun, the number of the verb is noteworthy. The compound is not the subject, but functions as a QP that modifies the subject. A singular verb, thus, has discourse significance, because the subject is singular, which is coreferential with the pronoun conjunct. In this way, the pronoun referent is the principal actor because, syntactically, it is the only actor in terms of subjecthood. The prominence of the pronoun is often highlighted further with conjunct binding and with a subsequent singular *pro*-drop verb. Conversely, a plural verb does not mark the conjuncts as equally-prominent actors. While both conjuncts in the QP explicate the plural *pro* subject reference, the initial conjunct in the QP can still be discourse-prominent, much like how the first conjunct in a compound subject can be the principal actor, whether the verb is singular or plural.

### **8.3.3 Summary**

Proper discourse analysis must be conducted in specific syntactic environments. Previous discourse analyses have suffered from making no meaningful distinction between coordinate compounds with an initial R-expression and those with an initial pronoun (§8.3.1). Moreover, there is a counter-productive impulse that sees every verbal choice as marked, but §8.2 showed that the default verb is singular in a VS clause but plural in an SV clause.

As part of the default pattern, a singular verb in a VS clause is not significant, but conjunct word order may mark prominence, which can be highlighted by conjunct binding

and a subsequent singular *pro*-drop verb (§8.3.2.1). A non-default, singular verb in an SV clause has discourse significance only when the conjuncts refer to specific people (§8.3.2.2). And a non-default, plural verb in a VS clause has no discourse significance; full agreement is always viable, and becomes more likely if the conjuncts are discourse-active and non-contiguous to the verb (§8.3.2.3). Finally, unlike FCA with an R-expression compound, a singular verb with a pronoun compound does signal that the pronoun referent is the principal actor (§8.3.2.4). It is the last construction that holds true discourse significance.

#### **8.4 Summary**

The focus of this chapter has been the intersection between verbal agreement and phrasal coordination. Syntax and discourse analysis complement each other, but primacy must be given to syntax. Consequently, discourse analysis is relegated to a more limited role in explaining the agreement asymmetries in BH.

A coordinate compound headed by an R-expression is a subject, while a post-verbal compound headed by a pronoun is a QP that modifies the subject (§8.2.3). The syntactic framework proposed here (§8.2.4) is able to generate the BH pattern of optional partial agreement in SV and VS clauses (§8.2.2), which is a welcome addition to the cross-linguistic typology of partial agreement (§8.2.1).

The section on discourse analysis revealed that a consideration of only number agreement on the verb is reductionistic (§8.3.1). Instead, paying attention to conjunct word order, conjunct binding, and subsequent singular *pro*-drop verbs is a more fruitful enterprise (§8.3.2.1). When there is a compound subject, the only situation in which a singular verb signals discourse primacy of the first conjunct is when both conjuncts refer to specific people in an SV clause (§8.3.2.2). However, when there is a post-verbal compound headed by a

pronoun, a singular verb always signals that the first conjunct is discourse-prominent (§8.3.2.4). In sum, we see that complex considerations from both syntax and discourse analysis must be incorporated into a single account in order to explain the significance of optional partial agreement in BH.

## CHAPTER 9: CONCLUSIONS

### 9.1 Summary

In this thesis, I have presented a syntactic analysis of phrasal coordination in BH. Chapter 1 introduced the three main research questions. Does *waw* have one function or multiple functions? What determines when *waw* occurs overtly? And how does *waw* interact with prosody, linear order, syntactic categories, scope-taking elements, and verbal agreement? The aim of this thesis has been to describe the phrase-level distribution of *waw* and better motivate its occurrences.

In chapter 2, I reviewed the previous literature on *waw* in BH, focusing on topics such as the semantics and syntactic distribution of *waw*, the structure of coordination, the function of the coordinator, and how coordination relates to subordination and apposition. Hebraists focus almost exclusively on the semantics of clausal coordination, being preoccupied with the following questions: Should one always translate *waw* and, if so, how? What meanings are associated with *waw*, and how many uses does it have? As a result, there is an extraordinary amount of variation across the field in describing coordination, and it has become unclear exactly how coordination is syntactically distinct from subordination and apposition.

In chapter 3, I interacted with the linguistics literature, and in the first half of the chapter I established four fundamental points regarding the basic syntax of coordination. First, the structure of coordination is hierarchical. Second, the conjuncts function as specifier and complement. Third, the coordinator is the head of its phrase. Fourth, the coordinator does not project an independent functional category, but only the function of the external conjunct. I later condensed these last two points by establishing that the coordinator is a defective head. I

used the resulting three features of coordination as the next three chapter headings, wherein I applied this theoretical framework to an analysis of phrasal coordination in the Pentateuch.

In the second half of chapter 3, I argued that the asymmetries of coordination stem from the hierarchical structure of coordination and the fact that the coordinator head projects only the category of the external conjunct, leaving the internal conjunct syntactically invisible. Thus, conjuncts may consist of different syntactic categories. Nevertheless, there are symmetries within coordination, which are best captured by Zhang’s (2010) Relativized Parallelism Requirement (RPR), a semantic filter for a coordinate structure already built. The RPR ensures coherence between the conjuncts either in terms of relatedness (i.e. natural coordination) or resemblance in their semantic type. Finally, I argued that coordination is a complementation relationship, whereas subordination is an adjunction relationship. In addition, the subordinator is a clausal head that creates its own syntactic domain and has scope over the subordinate clause, while the coordinator is a defective head that projects no new domain and allows other elements to take wide or narrow scope over the conjuncts.

In chapter 4, I showed two results of coordination being a hierarchical, rather than a flat, structure. First, the coordinator forms a sub-constituent with the internal conjunct. As a proclitic, *waw* can take one of seven different allophonic manifestations, depending on the initial phonological shape of the internal conjunct. Moreover, an eighth allophone,  $\text{w}$ , occurs only when the internal conjunct is an initial-accent word that aligns with a prosodic break (1).

- (1) זֶרַע וְקָצִיר וְקָר וְחֹם וְקַיִשׁ וְחַיִּים וְלַיְלָה (Gen 8:22)  
*zera’ wə-qāšîr wə-qōr wā-ḥōm wə-qayiš wā-ḥōrep̄*  
 seed and-harvest and-cold and-heat and-summer and-winter  
*wə-yôm wā-laylâ*  
 and-day and-night  
 “seed and harvest, cold and heat, summer and winter, day and night”

Second, this chapter showed that the hierarchical structure of coordination is also manifest in conjunct binding, since in all the cases of conjunct binding, a pronoun binds the second conjunct to the first.

In chapter 5, I demonstrated the results of the conjuncts functioning as specifier and complement. The main result is that no conjunct can move. Therefore, any example of “split coordination” results from ellipsis: gapping (2), stripping (3), or right node raising (4).

- (2) וְאָשַׁם הַנֶּזֶם עַל-אֶפְדָּהּ וְהִצַּמִּידִים עַל-יָדֶיהָ: (Gen 24:47)  
*wā'āsīm han-nezem 'al 'app-āh wə-has-ṣamīdīm 'al yādê-hā*  
 put.WCIPFV.1CS ART-ring on nose-3FS and-ART-bracelets on arms-3FS  
 “I put the ring on her nose, and [*I put*] the bracelets on her arms.”
- (3) [וְאֶת-בְּנֵימֶן] וּמִשְׁנֵה-כֶּסֶף לָקְחוּ בְיָדָם (Gen 43:15)  
*û-mišnê kesep lāqəhû bə-yād-ām wə-'et binyāmin*  
 and-double.GEN silver take.PFV.3CP in-hand-3MP and-ACC Benjamin  
 Double the money they took in their hand, [and Benjamin, they took \_\_\_\_] in their hand].
- (4) שְׁלֹשָׁה עֶשְׂרֹנִים לָפָר וּשְׁנַיִם עֶשְׂרֹנִים לְאֵיל תַּעֲשֶׂוּ: (Num 28:20)  
*šalōšā 'esrōnīm lap-pār û-šənê 'esrōnīm lā-'ayil ta'āsû*  
 three tenths to.ART-bull and-two.GEN tenths to.ART-ram do.IPFV.2MP  
 “Three tenths for the bull <you shall offer>, and two tenths for the ram – you shall offer.”

Similarly, purported cases of conjunct drop (5) and “comitative *waw*” (6) are better analysed as deriving from ellipsis or, as in the examples below, comprising a verbless clause.

- (5) וַיֵּשֶׁב בְּהָר וּשְׁתֵּי בָנָתָיו עִמּוֹ (Gen 19:30a)  
*wayyēšeb bā-hār û-šattê bənōtāy-w 'imm-ô*  
 dwell.WCIPFV.3MS in.ART-mountain and-two.GEN daughters-3MS with-3MS  
 And he dwelt in the mountain, and his two daughters were with him.
- (6) הָבֵהּ | נִבְנֶה-לָנוּ עִיר וּמִגְדָּל וְרֹאשׁוֹ בַשָּׁמַיִם (Gen 11:4)  
*hābā nibnê lā-nū 'îr û-miḡdāl wə-rō'š-ô*  
 come.IMP.2MP build.COH.1CP to-1CP city and-tower and-head-3MS  
*baš-šamayim*  
 in.ART-heavens  
 “Come, let us build ourselves a city and a tower, and its top shall be in the heavens.”

There are a few attested cases of initial coordination (7), but I argued that the *waw* before the first conjunct is not a true coordinator, but functions as a parasitic Focus particle.

- (7) **וְאֵלֶּה בְּנֵי־צִבְעוֹן וְאִיָּה וְעָנָה** (Gen 36:24)  
*wə-’ēllē bənē šib’ōn wə-’ayyā wa-’ānā*  
 and-these sons.GEN Zibeon and-Aiah and-Anah  
 These are the sons of Zibeon: both (lit. *and*) Aiah and Anah.

Finally, I argued that final coordination, in which only the final conjunct has a coordinator, does not employ null coordinators (8), and is thus a different syntactic construction than multiple coordination, in which a coordinator separates each conjunct (9).

- (8) **שֵׁם חָם וַיָּפֶת** (Gen 10:1)  
*šēm ḥām wā-yāpēt*  
 Shem Ham and-Japheth  
 Shem, Ham, and Japheth
- (9) **שֵׁם וְחָם וַיָּפֶת** (Gen 9:18)  
*šēm wə-ḥām wā-yāpēt*  
 Shem and-Ham and-Japheth  
 Shem and Ham and Japheth

Multiple coordination (9) consists of multiple heads and allows for sub-constituency, but final coordination (8) consists of multiple specifiers and does not allow for sub-constituency.

In chapter 6, I established the results of *waw* being a defective head. Asymmetric syntax at the phrase level has not been fully recognised, since conjuncts can be of different categories, as (10) consists of an NP conjoined to partitive PPs.

- (10) **וְהָרִים מִמֶּנּוּ בְּקִמְצוֹ מִסֹּלֶת הַמִּנְחָה וּמִשְׁמֵנָהּ וְאֵת כָּל־הַלֶּבְנָה אֲשֶׁר עַל־הַמִּנְחָה**  
 (Lev 6:8)  
*wəhērīm mimme-nnū bə-qumš-ō mis-sōlet ham-minḥā*  
 lift.WCPFV.3MS from-3MS in-handful-3MS from-flour-GEN ART-offering  
*ū-miš-šamn-āh wə-’ēt kol hal-ləbōnā ’āšer ‘al ham-minḥā*  
 and-from-oil-3FS and-ACC all-GEN ART-frankincense that on ART-offering  
 “And from it he shall take up a handful from the flour of the offering and from its oil, and all of the frankincense that is on the offering.”

Further, since the coordinator does not create its own syntactic domain, it allows other elements to take narrow or wide scope over the conjuncts. Narrow scope is the unmarked

option and can occur with distributive or collective readings of the conjuncts, but wide scope of the object marker (11) or preposition (12) specifically marks a collective reading.

- (11) וַיִּרְפָּא אֱלֹהִים אֶת־אֲבִימֶלֶךְ וְאֶת־אִשְׁתּוֹ וְאֶת־מַדְבָּרָיו וַיִּלְדוּ: (Gen 20:17)  
*wayyirpā' ʔlōhīm ʔt ʔbimelek wə-ʔt ʔšt-ō*  
 heal.WCIPFV.3MS God ACC Abimelech and-ACC wife-3MS  
*wə-ʔamhōt-āyw wayyēlēdū*  
 and-maidservants-3MS give.birth.WCIPFV.3MP  
 God healed Abimelech, and his wife and his maidservants, and they gave birth.

- (12) וְהָיוּ לְאִתּוֹת וּלְמוֹעֲדִים וּלְיָמִים וּשְׁנָיִם: (Gen 1:14)  
*wəhāyū lə-ʔōtōt ū-lə-mō ʔdīm ū-lə-yāmīm wə-šānīm*  
 be.wcpfv.3cp to-signs and-to-appointed.times and-to-days and-years  
 “And let them be for signs and for appointed times and for days and years.”

Similarly, when coordination occurs in a downward-entailing environment like negation (13), the conjuncts take a distributive “neither” reading ( $[\neg P] \wedge [\neg Q]$ ).

- (13) וְלֹא־נָטָה לְיָמִין וְעַל־הַשְּׂמֹאל מֵאַחֲרַי אַבְנֵר: (2 Sam 2:19)  
*wə-lō' nātā lā-leket ʔal hay-yāmīn wə-ʔal haš-šəmōl*  
 and-NEG turn.PFV.3MS to-walk.INF on ART-right and-on ART-left  
*mē-ʔahārē ʔbnēr*  
 from-after Abner  
 He did not turn by going to the right or (lit. *and*) to the left from behind Abner.

Finally, as a syntactic head, conjunction *waw* can be a null constituent in a multiple-coordination structure with a particular function (14)–(15).

- (14) וַתֵּלֶד לוֹ אֶת־נָדָב וְאֶת־אֲבִיחֻ וְאֶת־אֵילֶזָר וְאֶת־אִיתָמָר: (Exod 6:23)  
*wattēled l-ō ʔt nādāb wə-ʔt ʔbīhū ʔt ʔl ʔzār*  
 birth.WCIPFV.3FS to-3MS ACC Nadab and-ACC Abihu ACC Eleazar  
*wə-ʔt ʔtāmār*  
 and-ACC Ithamar  
 She bore him [Nadab and Abihu], Ø [Eleazar and Ithamar].

- (15) וּלְזִבַח הַשְּׁלָמִים בְּקָר שְׁנַיִם אֵילִם הַמִּשָּׁה עֵתוּדִים הַמִּשָּׁה כְּבָשִׂים בְּנֵי־שָׁנָה וְהַמִּשָּׁה (Num 7:17)  
*ū-lə-zəbah haš-šəlāmīm bāqār šənayim ʔlīm ḥāmiššā ʔtūdīm*  
 and-to-sacrifice.GEN ART-peace cattle two rams five goats  
*ḥāmiššā kəbāsīm bənē šānā ḥāmiššā*  
 five sheep sons.GEN year five  
 And for the sacrifice of the peace offerings: two oxen, Ø five rams, Ø five goats, Ø five one-year-old sheep.

When one coordinator is null (14), it marks the left edge of a sub-constituent structure. When all of the coordinators are null (15), any reading of sub-constituency is blocked.

In chapter 7, I established that apposition is an adjunction relationship, which means that the appositive is outside the scope of negation (16), and the anchor can be fronted (17).

- (16) וְלֹא חָשַׁקְתָּ אֶת־בְּנֶךָ אֶת־יְחִידְךָ: (Gen 22:16)  
*wə-lō' ḥāśaktā 'et bīnə-kā 'et yaḥīde-kā*  
 and-NEG withhold.PFV.2MS ACC son-2MS ACC only-2MS  
 “And you did not withhold your son, your only.”

- (17) אָחִים | אֲנַחְנוּ בְנֵי אִישׁ־אֶחָד (Gen 42:13)  
*'aḥīm 'ānaḥnū bənē 'iš 'eḥād*  
 brothers we.NOM sons.GEN man one  
 “Brothers<sub>i</sub> we are \_\_\_\_\_<sub>i</sub>, the sons of one man.”

Multiple co-referential appositives can be iterated into the structure without *waw* (18), and are only coordinated (19) to prevent reading them as embedded appositives.

- (18) וַיִּקְנֶהוּ פוֹטִיפָר׃ סָרִיס פְּרֹעֶה שֶׁר הַטַּבָּחִים אִישׁ מִצְרָיִם (Gen 39:1)  
*wayyiqnē-hū pôtīpar sārīs par'ô šar*  
 buy.WCIPFV.3MS-3MS Potiphar officer.GEN Pharaoh commander.GEN  
*ḥaṭ-ṭabbāḥīm 'iš miṣrī*  
 ART-guard man Egyptian  
 And Potiphar, Pharaoh's official, the commander of the guard, an Egyptian man, bought him.

- (19) וְשֵׁם אִשְׁת־נְחוֹר מִלְכָּה בַת־הָרָן אֶבְי־מִלְכָּה וְאָבִי יִסְכָּה: (Gen 11:29)  
*wə-šēm 'ēšet nāḥôr milkâ baṭ hārān 'ābī*  
 and-name.GEN wife.GEN Nahor Milcah daughter.GEN Haran father.GEN  
*milkâ wa-'ābī yiskâ*  
 Milcah and-father.GEN Iscah  
 And the name of Nahor's wife was Milcah, the daughter of Haran, the father of Milcah and the father of Iscah.

When *waw* joins two conjuncts, together they form a semantically richer constituent than they would on their own. Under this framework, I argue against the prevailing view that *waw* has an explicative function. It is always conjunctive, even when it joins co-referential phrases.

In chapter 8, I address verbal agreement with conjoined singular subjects. Partial agreement is the default pattern in VS clauses (20), and is attested even in SV clauses (21).

(20) וַתְּדַבֵּר מִרְיָם וְאַהֲרֹן בְּמֹשֶׁה (Num 12:1)  
*wattəḏabbēr miryām wə-’ahārōn bə-mōšē*  
 speak.WCIPFV.3FS Miriam and-Aaron in-Moses  
 Miriam and Aaron spoke (sg) against Moses.

(21) וַיֹּאבֵב וְאַבִּישַׁי אֶחָיו רָדְף אַחֲרַי שֶׁבַע (2 Sam 20:10)  
*wə-yō’āb wə-’ābīšay ’āh-îw rāḏap ’ahārē šeba’*  
 and-Joab and-Abishai brother-3MS chase.PFV.3MS after Sheba  
 Joab and Abishai his brother chased (sg) after Sheba.

BH is the only reported language that consistently favours the higher conjunct rather than the closer conjunct when agreement is partial. I was able to account for the BH pattern of optional partial agreement by splitting Agree into two steps. When the first conjunct is an R-expression, the compound functions as the subject; but when the first conjunct is a pronoun (22), the compound is a quantifier phrase (QP) that modifies the true subject.

(22) וַיִּחַלֵּק עֲלֵיהֶם לַיְלָה הוּא וְעַבְדָּיו (Gen 14:15)  
*wayyēḥālēq ’ālē-hem laylā hū’ wə-’ābādāy-w*  
 divided.WCIPFV.3MS on-3MP night he.NOM and-servants-3MS  
 He was divided against them at night, he and his servants.

I also incorporated considerations from discourse analysis and developed a complexity approach for interpreting the patterns of optional partial agreement in BH.

## 9.2 Conclusions

I believe I have provided satisfactory answers to my three research questions regarding *waw*. First, I have shown that *waw* maintains one syntactic function as a conjunctive coordinator. Second, I established that there are two coordination structures in examples with three or more conjuncts: a multi-headed structure, which has a *waw* between each conjunct, and a multiple-spec structure, which has a *waw* before the last conjunct only. Third, I have demonstrated that prosodic effects on *waw* reflect the hierarchical syntactic structure of

coordination, that non-contiguous “conjuncts” are the result of ellipsis, that non-matching syntactic categories can be conjoined, that *waw* allows other elements to take wide or narrow scope over the conjuncts, and that a verb can agree with the compound subject or with a singular conjunct only.

This thesis has provided new knowledge in six ways. First, I showed that *waw* takes a *qamets* as a reflex of prosodic end-weight that is attracted to a pretonic stress position at a prosodic break. Second, I demonstrated that multiple coordination, as a multiple-head construction, is distinct from final coordination, a multiple-spec structure that does not allow for sub-constituency.

Third, I established examples of privative markedness. While multiple coordination is unmarked for sub-constituency, a null coordinator marks the left edge of a sub-constituent phrase. Also, narrow scope of the object marker and preposition can occur with a distributive or collective reading of the conjuncts, but wide scope marks a collective reading.

Fourth, I determined that the “disjunctive” use of *waw* in negated coordination is not a result of ellipsis; rather, negation creates a downward-entailing environment, similar to a protasis, a generic NP, and a quantified NP—that licenses the scalar alternative of the second conjunct, which receives prosodic stress. The conjunction spreads this interpretation to the other conjunct, which produces the distributive “neither” reading of the conjuncts.

Fifth, I distinguished between four apposition structures: stacked appositives, embedded appositives, coordinate-complex appositives, and coordinated appositives. The final category provides both a motivation and a limitation for coordinating co-referential phrases in BH, maintaining a distinction between coordination and apposition.

Sixth, I accounted for BH optional partial agreement in VS and SV clauses by splitting Agree into two steps. BH is the only reported language that consistently favours the higher

conjunct rather than the closer conjunct when agreement is partial, which is a welcome addition to the cross-linguistic typology of partial agreement. Finally, I interpreted the significance of the pattern of optional agreement using a complexity approach.

## **9.2 Future Research**

Further studies can make advancements on this thesis by studying diachronic change and clausal coordination in BH. Regarding diachronic change, I have already recorded significant variation in the Pentateuch for multiple- and final-coordination structures, for narrow- and wide-scope uses of the object marker and prepositions, and for optional patterns of partial agreement with conjoined subjects. In future research, I will analyse the data from books conventionally identified as Late Biblical Hebrew and investigate whether the patterns of variation are significantly different than those attested in the Pentateuch.

Regarding clausal coordination, I have already established a theoretical and empirical account of asymmetric phrasal coordination that can form the basis for the study of clausal coordination. Based upon what is currently known about the complexities of clausal coordination in BH, I expect that future research will demonstrate that asymmetries are even more pronounced at the clause level. A thorough investigation of clausal coordination in BH should prove to be very fruitful, as it has already been shown that study of phrasal coordination is very profitable. A comprehensive, integrated account of phrasal and clausal coordination in BH from the perspective of a sophisticated, informed linguistic theory will provide even more insight into the structure of coordination and the function of *waw* in Biblical Hebrew.

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