Grammatical Polysemy in the Hebrew Bible:
A Cognitive Linguistic Approach to כי

by

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Declaration

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Abstract

This study is an investigation into the grammatically polysemous word כי in the Hebrew Bible. Despite much ink spilt on the description of this little word, many questions remain to be fully explored. Studies of the past have traditionally tended toward more or less taxonomic approaches in which the various uses of כי and the contexts in which they are found are listed with relatively little if any explanation of the way they are conceptually connected to each other. Others have tended toward a more or less monosemic approach which attempts to connect all of the uses of כי to a single abstract core that is merely modulated in context to produce its various uses. While the former give descriptive accounts of כי's functional diversity but lack an explanation of its coherence, the latter suffer from an overly simplistic coherence that fails to recognize its diversity of usage.

The contemporary explosion of explanatorily powerful models for understanding the complexity of language based on converging evidence utilized in cognitive approaches to linguistics, fueled by newly available statistical evidence from an unprecedented amount of crosslinguistic data, calls for a fresh look at grammatical polysemy in the Hebrew Bible, with כי being an example of the phenomenon *par excellence*. Specifically, developments from Domain Theory, Mental Spaces Theory, and the study of subjectivity from the perspective of cognitive semantics have revealed that all languages will have a repertoire of words and constructions to mark several types of causal relationships basic to communication. Such insights are applied to the analysis of causal כי (its most prototypical usage) to yield psychologically plausible and crosslinguistically applicable categories that prove fruitful for explaining its complexity. Furthermore, such a cognitive perspective also reveals that variations within the semantics of causal כי are observed to have principled affects on its syntactic profile, bringing clarity to the ongoing question of its syntactic status as a subordinator or coordinator. The answer is found by dispensing with the dichotomy and instead locating various uses along a continuum that correlates with its semantic usage.

Additionally, a proposal is made concerning the conceptual relationship between causal כי and its various other uses that explains it polysemy on the one hand, but also reveals the principled relationship between and organization of its functions within a coherent usage profile on the other. This is accomplished by heuristically employing crosslinguistically pervasive and cognitively motivated grammaticalization paths in conjunction with the usage profile of כי from Genesis, Leviticus, Ezekiel, Psalms Book 1, and Chronicles, a corpus of 1,058 tokens of כי. From this data is posited a typologically plausible reconstruction of כי's diachronic development and the resulting organization of its synchronic polysemy. By employing the notion of prototypicality as determined by contextual frequency, each use of כי is presented with a relative weight of importance. This results in a usage profile that does justice to both the polysemic diversity and conceptual unity of כי.

iii

Abstrak

Hierdie studie is 'n ondersoek na die grammatikaal-polisemiese woord כי in die Hebreeuse Bybel. Ondanks die feit dat daar al heelwat aandag aan hierdie kort woordjie spandeer is, bly talle vrae daaroor egter nog onbeantwoord. Vorige studies het tipies daartoe geneig om meer taksonomies van aard te wees. Die verskillende gebruike van כי en die kontekste waarin dit gevind kan word, is gelys. Relatief min, indien enige, poging is aangewend om die manier waarop die verskillende gebruike konseptueel met mekaar verband hou, te verduidelik. Ander het weer oorgehel tot 'n monosemiese benadering. Al die gebruike van כי is herlei tot 'n enkele abstrakte kern. Die kern is ooreenkomstig die konteks waarin dit gebruik is, gemoduleer - om sodoende die verskillende gebruike daarvan te verklaar. Terwyl eersgenoemde benadering die funksionele verskeidenheid van כי beskryf, gaan dit mank aan 'n verduideliking van die koherensie tussen die funksionele onderskeidings. Laasgenoemde se simplistiese poging tot koherensie slaag weer nie daarin om reg te laat geskied aan die verskeidenheid van כי se gebruike nie.

Die huidige ontploffing in modelle wat groot potensiaal het kompleksiteit van taalgebruik te verklaar en te verstaan, en wat gegrond is op konvergerende getuienis, en gebruik word in kognitiewe tot taalkunde, verg 'n nuwe blik op grammatikale polisemie in die Hebreeuse Bybel, met כי by uitstek as 'n voorbeeld van die fenomeen – veral in die lig van baie nuwe statistiese gegewens oor tale heen. Veral ontwikkelinge in die Domeinteorie, "Mental Space Theory" en die studie van subjektiwiteit vanuit die perspektief van kognitiewe taalkunde, het aan die lig gebring dat alle tale 'n repertoire van woorde en konstruksies het om verskillende soorte kousale verhoudings wat grondliggend aan kommunikasie is, te merk. Sodanige insigte word gebruik in die ontleding van kousale כי (die mees prototipiese betekenis van die woordjie) om psigologies waarskynlike, en oor taal heen geldige, kategorieë wat met vrug die kompleksiteit daarvan verduidelik. Verder, sodanige kognitiewe perspektief toon aan dat variasies in die semantiek van kousale כי beduidende gevolge het vir die sintaktiese profiel daarvan. Op sy beurt gee dit dan weer meer duidelikheid oor die vraag of כי onderskikkend of neweskikkend is. Die antwoord lê daarin dat weggedoen word met laasgenoemde dichotomie. Daar moet eerder gepoog word om die verskillende gebruike van כי op 'n kontinuum tussen die twee pole te plaas wat korreleer met die semantiese gebruike daarvan.

Verder word ook 'n voorstel gemaak ten opsigte van die konseptuele verhouding tussen kousale כי en die ander gebruike van כי. Hierdie voorstel verklaar, aan die een kant, die polisemie van כי, maar toon, aan die ander kant, ook die prinsipiële verhouding en organisasie van die funksies daarvan in terme van 'n koherente gebruiksprofiel. Dit word bereik deur op 'n heuristiese wyse grammatikaliserende kontoere ("paths") te gebruik wat oor tale heen as geldig bewys is en kognitief gemotiveer kan word. As korpus word 1058 gevalle van כי in Genesis, Levitikus, Esegiël, Psalms (Boek 1) en Kronieke gebruik. Met behulp van die data word 'n tipologiese waarskynlike rekonstruksies van כי se diakroniese ontwikkeling gepostuleer, asook die organisasie van die sinkroniese polisemie wat daaruit voortspruit. Deur gebruik te maak van die nosie prototipikaliteit soos bepaal deur die kontekstuele frekwensie, word aan elke gebruik van כי 'n relatiewe gewig verleen. Die resultaat is 'n gebruiksprofiel wat reg laat geskied aan die polisemiese verskeidenheid en die konseptuele eenheid van כי.

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I certainly could not have completed this dissertation without help and support of many more than I can mention here. I thank first of all the Triune God for giving me the means and strength to complete this endeavor. It is in service to him and the call to minister his word that I have undertaken this project. I would also like to thank my advisor Prof. Christo van der Merwe for his guidance during this journey. I cannot imagine having studied with a better mentor. He has not only been an excellent advisor, but has modeled what it looks like to be a scholar for the Church. Venturing into PhD study is like attempting a high wire stunt. In both cases the daredevil battles doubts of being able to traverse the path ahead, even perhaps to the very end. Just as a safety net calms the nerves of the one, an able advisor gives confidence to the other.

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Dedication

For Holly שִׂמְחָה,
אֵשֶׁת נְעוּרַי
Proverbs 5:18

and

for Christian שְׁלֹמֹה *and Bruce* מֹשֶׁה,
בְּנֵי נְעוּרַי
Psalm 127:4

Table of Contents

List of Figures

List of Tables

Abbreviations

1	First person
3	Third person
1QH	Qumran Cave 1 Scroll, Hodayot or Thanksgiving Hymns
1QS	Qumran Cave 1 Scroll, Serek Hayah'ad or Rule of the Community
AB	Anchor Bible
BCC	Backward causal connective
BCSN	Basic Communicative Spaces Network
BDB	Brown, F., Driver, S.R., & Briggs, C.A. 2000. *Enhanced Brown-Driver-Briggs Hebrew and English Lexicon*. Oak Harbor, WA: Logos Research Systems.
BH	Biblical Hebrew
BHS	Kittel, R., K. Elliger, W. Rudolph, H. P. Rüger, and G. E. Weil. 1977. *Torah, Nevi'im u-Khetuvim: Biblia Hebraica Stuttgartensia.* Stuttgart: Deutsche Bibelstiftung.
CAD	Gelb, I. J., Jacobsen, T., Landsberger, B., & Oppenheim, A. L. 1971. *The Assyrian Dictionary of the Oriental Institute of the University of Chicago*. Vol. 8, K. Chicago: The Oriental Institute of the University of Chicago.
CCC	Causal, conditional, concessive, and related interclausal relations
CEB	Common English Bible
CEV	Contemporary English Version
DCH	Clines, D. J. A., ed. 1998. *The Dictionary of Classical Hebrew*, Vol 4. Sheffield: Sheffield Academic Press.
ESV	English Standard Version
FIS	Free Indirect Speech
Geneva	Geneva Bible 1560
HALOT	Koehler, L., Baumgartner, M.E., Richardson, J. & Stamm, J.J. 2000. *The Hebrew and Aramaic Lexicon of the Old Testament*. Leiden/New York: Brill.
HCSB	Holman Christian Standard Bible
ICC	International Critical Commentary
IP	Integration phenomena
JPS1917	Jewish Publication Society 1917 edition
JPS1985	Jewish Publication Society 1985 edition
Lach	Lachish Letters
LXX	Rahlfs, A. & Hanhart, R. 2006. *Septuaginta: SESB Edition*, Stuttgart: Deutsche Bibelgesellschaft.
MCP	Main clause phenomena
MST	Mental Space Theory
MT	Masoretic Text
NAC	New American Commentary
NASB	New American Standard Bible
NCV	New Century Version
NETS	Pietersma, A. & Wright, B.G. 2007. *A New English Translation of the Septuagint: and the Other Greek Translations Traditionally Included under That Title*. Oxford: Oxford University Press.
NICOT	New International Commentary on the Old Testament

NIV   New International Version 2011 edition
NT   New Testament
Pro   Pronoun
Sifre Num   Sifre to Numbers
Sg   singular
SoC   Subject of consciousness
SVO   Subject-verb-object word order
SOV   Subject-object-verb word order
Qr   Qere
RSV   Revised Standard Version
VO   verb-object language
Vulg   Weber, R. & Gryson, R., 1969. *Biblia Sacra Iuxta Vulgatam Versionem* 5th
             Revised Edition., Stuttgart: Deutsche Bibelgesellschaft.
WBC   Word Biblical Commentary
WH   Interrogative words such as: *when*, *what*, *why*, etc.
Marks ungrammaticality

Part One: Preliminary orientation

1   Introduction

> *"Since* כי *is the most frequent clause connector after the paratactic* ו, *it surely deserves to be discussed once again."*
> Aejmelaeus (1986:193)

The above quote from Aejmelaeus seems to be just as true today as it was three decades ago. Upon completion of the present work, it is still true. In light of the centuries of struggle over this tiny word (millennia if the toils of ancient exegetes and translators are counted), the question may be reasonably asked: "How much more research on כי will satisfy Hebraists?" The answer of those who venture into the study of this enigmatic word and perceive its deep complexities may be the same as Rockefeller's (perhaps apocryphal) answer when asked how much money is enough—"Just a little more." Though, as Wierzbicka (1986:521) has quipped, "One has to feel strongly about particles to want to persist in the study of this elusive, thorny, and mind-boggling field at all" (cited in Follingstad 2001:128).

From the perspective of both general linguistic research and Hebrew Bible scholarship, a robust understanding of the particle כי is of great importance for our understanding of the Hebrew Bible and its conceptual world. This is captured in Eaton's (1940:ix) observation that "…the words and locutions which appear most often are those which are most necessary for the concerns of life…" (1940:ix)" (cited in Kortmann 1997:135). More specifically, connectives encoding the sorts of relationships expressed by כי (especially causal) are among the most important words in all of language. As explained by Kortmann (1997:141–142):

> …in the European languages, but most likely outside this area too, the need for coding by means of (highly) grammaticalized lexical markers is felt greatest for the operation with causes and reasons, on the one hand, and with uncertainties or possible (real as well as unreal) scenarios, on the other. This is a confirmatory instance of Wierzbicka's classification of 'because' as a universal 'semantic primitive, ... that ... does have lexical exponents in all languages' (1992: 410), allowing, like Aristotle in his *Metaphysics* (Book 5, Chapter 2), for Purpose as one type of Cause. Wierzbicka's position, in turn, echoes often-made claims as to the centrality of causality as a basic reasoning principle, as 'a primitive or basic building block in the human cognitive capacity' (Ziv 1993: 21).[1]

However, it is hoped that the present project will do more than impress the reader with the importance and complexity of כי.

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[1] Cf. Wierzbicka (1998:117).

1.1   The need for a fresh look

In the past half-century, what could be called something of a trend has emerged in Hebrew Bible scholarship to produce studies revisiting the problematic particle כי, especially in an attempt to bring more clarity to its perplexing polysemy. While certain uses have enjoyed wide recognition (e.g. complementizer כי), others continue to be hotly debated (e.g. asseverative כי). Such studies normally come in the form of taking up a particular list of uses and defending it against others. The current project is the latest in this trend. However, the following analysis represents a new line of investigation in the study of כי by approaching it from a cognitively oriented perspective. Such an approach incorporates converging evidence from the observation of cognitively motivated linguistic patters across languages that help explain the complexity of words like כי, using the tools of grammaticalization paths and prototype networks to reveal its organization and coherence. Such vast crosslinguistic analyses that have given greater insight into the processes that result in polysemous and polyfunctional words and the principled organization of their uses have only relatively recently become available, and more recently still have been utilized in Hebrew Bible scholarship.[2] The fact that these resources have been as yet untapped in the description of כי calls for its reassessment.

A cognitive account that recognizes the principally organized polysemy of words like כי may be situated between monosemy approaches at one extreme and homonomy approaches at the other. This spectrum of approaches has been widely observed in language study (cf. Follingstad 2011:129–132). For example, Haspelmath (2003:214) discusses "list" approaches versus "general meaning" approaches and advocates instead what he calls the "semantic map" approach (many principles of which are incorporated into my analysis as discussed in chapter 6).[3] Elsewhere, Haspelmath (2004:24) refers to general meaning approaches as attempts to posit "Gesamtbedeutungen" but notes that "it is often difficult to see how one gets from the abstract meaning to the various concrete uses." Degand (2009) and Fischer (2006:12–14) label the analyses along this cline as monosemy, homonomy, and polysemy approaches. Langacker (1991:264) observes what he calls a "rule/list fallacy" among approaches to linguistic analysis

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[2] Of all the works Hardy (2014:39–53) surveys that apply cognitively oriented grammaticalization theory to Semitic languages, only Pat-El's (2008) focuses on subordinate clause structures. However, it is on Aramaic. Givón's (1991) paper is the only one of which I am aware to apply such a perspective to כי.

[3] He actually says that the semantic map approach does not require a theoretical commitment of monosemy or polysemy. However, for reasons discussed more in section 6.1.2, semantic maps fit much more naturally with a polysemy approach, since gradual grammaticalization paths (which have been constructed from semantic maps) necessitate polysemy.

which assumes that words must be defined either with a unifying set of abstract rules or with a more atomistic list of uses.[4]

This same spectrum can be seen played out in past research on כי as well. The attempts so far to explain the coherence of כי which may be viewed as tending toward more or less monosemic approaches have been etymological (i.e. originally deictic meanings from which all other uses are derived, e.g. Muilenburg 1961), comparative (related to the so-called emphatic Ugaritic *k*, e.g. Schoors 1981), and theoretical (i.e. that a form has a single abstract meaning and all else is attributable to pragmatics, e.g. Follingstad 2001 and to some extent Aejmelaeus 1986). In yet other cases, no attempt at all is made to connect uses or the uses are seen as having no connection at all.[5] Others have been more rigorously functional and agnostic to the etymology of כי, thus tending toward more or less taxonomic or descriptive approaches (e.g. Thorion 1984; and most of the past grammatical and lexicographic tradition). While Bandstra's (1982) study was thoroughly synchronic and can be considered as having a more descriptive tendency, his work made significant strides in explaining usage based on discourse function and providing better alternatives to the widely asserted "emphatic" use. However, attempts to approach כי from a thoroughly polysemic perspective which aim at a more or less comprehensive explanation of the conceptual and diachronic connections between uses (and recognize those uses to be genuinely part of the semantics of כי rather than simply contextually derived) have been virtually non-existent.[6]

Thus, debate continues regarding how the usage profile of **כי** should be theoretically characterized (monosemy vs. heterosemy) and practically described (e.g. taxonomy vs. core + rules), and the various studies of the past may be placed along a cline ranging from more

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[4] Cf. Gries (2015:474) who refers to "extreme lumpers" and "extreme splitters."

[5] This latter perspective on כי is clearly seen in Levinson & Zahn (2002:296) who describe it as "a conjunction that has a wide range of *unrelated* meanings" (emphasis mine). Cf. König (1991:7) who refers to particles as "…members of minor lexical categories, i.e. to words which have no extension, which are highly abstract and context-dependent in their meaning and thus have a wide range of apparently unrelated uses."

[6] An exception is Givón's (1991) study noted above. However, his primary focus was on relativizers and complementizers and only to a lesser degree on adverbial subordinators, which is the most widely used function of כי. Furthermore, this study came out well before Kortmann's (1997) groundbreaking research on adverbial subordinators that has been so foundational for the present project. The salient point is that Givón's helpful explorations nevertheless left much to be studied from the cognitive perspective adopted here. There certainly have been others who have proposed diachronic developments to make sense of the polysemy and polyfunctionality of כי (see for example those noted by Benigni 1999:128). However, as seen in the chapter 2 survey, these have often been more or less vague (e.g. noting some contexts ambiguous between several uses or simply proposing diachronic developments between one or two uses with little or no supporting rationale) and non-systematic rather than a sustained effort to reveal all the major connections between uses within a unified usage profile.

atomistic and taxonomic (i.e. homonymy) to more abstract and reductionistic (i.e. monosemy), with a polysemy approach as an underutilized middle ground which attempts to account for the coherence of a form's usage while at the same time acknowledging genuine semantic diversity. Related to this is the continuing question of how to categorize כי according to word class. As will be seen in chapter 2, previous studies have variously labeled it a relative, a conjunction, an adverb, a particle, a demonstrative, or have included it in multiple categories (notably Van der Merwe *et al.* 1999:300–304, 311 who list it as a conjunction and a modal word/adverb).[7]

A difficulty contributing to this situation is the fact that the corpus of Ancient Hebrew is relatively small, drastically limiting the amount of data from which to draw clues. Ullendorf's (1997:9) observation is well taken that "the vocabulary and idiomatic range of BH must have fallen far short of the Hebrew potential of biblical times." He ends his study concluding that "BH is clearly no more than a linguistic fragment" (ibid:16). However, since the vast majority of past research on כי, unprecedented access to crosslinguistic data and research into the usage profiles of words like כי has become available and revealed much about the synchronic polysemy patterns and diachronic processes of change which give rise to them. As Kortmann (1998a:484) observes concerning the synchronic polysemy patters and diachronic development of adverbial subordinators, "this is the first time that statistical evidence has been made available." These untapped findings can help bridge the empirical gap left by the limited corpus of the Hebrew Bible and call for a fresh look at the radical polysemy of כי in an effort to not simply describe its usage profile in more or less taxonomic lists, nor to settle for theoretically problematic and practically unsatisfying abstractions of some core meaning, but to offer a more explanatory analysis which attempts to account for the internal complexity of causal categories and conceptually and diachronically connect seemingly unrelated uses.

1.2   Overview of approach

Having laid out the need for a fresh look at כי, I will now briefly give an overview of the present study. The basic approach taken here is summarized well by Van Hecke (2011:284):

> From a cognitive-semantic perspective, the semantic analysis is not completed with the description of the various senses of a term. A cognitive description of semantic structure

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[7] In fact, I will argue in chapter 6 and especially in section 6.3.1, contra Follingstad (2001:23–24) that Van der Merwe *et al.* (1999) are indeed correct to include כי in multiple categories since such words regularly fall along various points at the intersection between multiple category continua. See Follingstad (2001:22–24) for an overview of the various classifications that have been given to כי.

will try to give a motivated account of the observed polysemy, i.e. the co-occurrence of different meanings for one term. This will include providing a balanced presentation of the different meanings, discerning more central from more peripheral senses of a term, but also explaining the semantic relations (generalization, specialization, metaphor, metonymy) between the different senses.

Thus, the goal of this project is to present the meaning of כי as an interconnected network of uses that reveals both the relationships between them and their relative importance within the overall profile of כי. That is, the synchronic polysemy of כי will be explained as the result of various cognitively motivated extensions in its diachronic history that follow crosslinguistically pervasive grammaticalization paths. The centrality of these uses within the profile of כי will then be organized according to their prototypicality as indicated by their relative frequency.

I will undertake such an analysis by first surveying past research in chapter 2. In addition to identifying continuing disputes regarding the use of כי and its semantic and syntactic categorization, this survey will center on ascertaining the various uses of כי that have been recognized in past research and which use is likely most prototypical. This will allow me to focus on an analysis of the most prototypical use of כי and proceed from there to describe its connections to the rest of its polysemous network of uses. As will be seen, of all of its functions, כי as a causal conjunction has been consistently recognized as its most prominent use. As Follingstad (2001:xxv) observes, "The consensus in the BH grammatical tradition is that כי is a **logical** (primarily 'causal') **syntactic connector** with various extended adverbial, substantival, or emphatic uses" (cf. Kaddari 1997:90). Additionally, there has long been a recognition of the importance of the causal use of כי in motivating various speech-acts such as imperatives, requests, promises, or even justifying the relevance of previous statements. Bandstra (1982), Claassen (1983), Aejmelaeus (1986), and Van der Merwe (1993) and Van der Merwe *et al*. (1999) attempted to distinguish between these different types of causal relations. Bandstra focused on formal differences between different causal clauses (especially the tense and modality of the verbs within the main and causal clauses), Claassen on more semantic or conceptual differences in "levels" of causation. However, more work can be done on this issue.[8] Specifically, rather than simply categorizing causal relations based on formal features or more or less idiosyncratic categories based on intuition (as helpful as those observations are), more recent cognitively oriented approaches to connectives based on a large array of crosslinguistic empirical

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[8] Compare the call for further investigation in Van der Merwe (1993:39).

data have revealed psychologically plausible categorizations of causal relations. The converging evidence from past language-specific research on כי along with cognitively oriented crosslinguistic research will enable me to propose categories of causal usage that are likely to be more exegetically significant, since they are not merely based on formal characteristics or researcher intuition, but also take into account construal operations common to human conceptualization. Furthermore, while the question of whether causal כי may mark coordinate as well as subordinate clauses has been broached in past research (especially Gross 1991), this has not received special focus and there has not been significant discussion exploring the principled connection between the complex semantics of causal connectives on the one hand and their syntactic form on the other. Here too, more recent linguistic advances in the interface between semantics and syntax provide the warrant for a reassessment of causal כי. For the above reasons (i.e. its high frequency and internally complex usage), the present work will pay special attention to causal כי as its most prototypical use.[9]

From here, I will move on in Part Two of this study to present a cognitively and crosslinguistically oriented approach to the polysemy of grammatical words like כי. In chapter 3, I will present some foundational theoretical concepts for a cognitive approach to causal connectives that will continue to be referred to and developed throughout this study. This will include an overview of Domain Theory, subjectivity, prototypicality, and Mental Spaces Theory. Such concepts will provide the foundation for our thinking on causal relationships and how various concepts may be related to each other in a prototype network. Building on this, chapter 4 will integrate these foundational concepts into a model for analyzing the semantics and pragmatics of causal connectives called the Basic Communicative Spaces Network. Such an integration will allow us to describe in a precise, psychologically plausible, and crosslinguistically applicable way the various types of causal relationships that may be encoded by words like כי. Chapter 5 will then present a model for understanding the principled connection between the semantics and syntax of causal connectives that helps account for the syntactic reflexes to semantic differences in causal relations. To answer the question of the syntactic status of causal כי as a subordinating or coordinating conjunction, I will dispense with the dichotomy altogether and instead understand it as traversing a continuum where subordinate and coordinate status are merely poles at each end. Furthermore, the place that כי syntactically occupies is a

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[9] This will be confirmed at the end of my analysis in chapter 9 when the full usage profile of כי is presented.

direct result of the more subjective or objective construal of the causal relations it communicates, (as described in chapter 4). Chapter 6 will then present a model of how grammatically polysemous words like כי develop and how its prototypical causal use may be situated among its various other uses, both qualitatively according to diachronic grammaticalization paths resulting in synchronic polysemy, and quantitatively according to greater and lesser prototypicality. This will provide the heuristic foundation for Part Three when I apply all of these insights to an investigation of כי in the Hebrew Bible.

Part Three will begin with chapter 7 which will present the scope and rationale for my corpus as well as my approach to token analysis. Introducing this here will be strategic, since my corpus design and token analysis will crucially depend on the distinction between semantics and pragmatics, as well as the notions of contextual frequency, entrenchment, and prototypicality established throughout Part Two. Chapter 8 will then present my analysis of causal כי as not only its most prototypical use, but also as internally very complex. This will draw on the categories established in chapters 3–5 and the principles for organizing them established in chapter 6. Chapter 9 will then present the organization of כי's polyfunctionality (i.e. its use in multiple word classes such as complementizer and adverbial conjunction) and polysemy as an adverbial connective (communicating various temporal, causal, conditional, concessive, etc. relationships).[10] According to the model of diachronic grammaticalization and the organization of synchronic polysemy/polyfunctionality established in chapter 6, I will propose what appear to be the most likely grammaticalization paths that enable us to see the conceptual connection between the various uses of כי. These will also allow us to corroborate the legitimate individual semantic status of uses based on their entrenchment as indicated by semantic uniqueness, divergent syntactic preferences, and contextual frequency. Of course, when it comes to frequencies of use, we must echo the sentiment expressed by Meier (1992:viii) in his study of direct discourse in the Hebrew Bible: "Statistical data presented here are intended to provide a general picture of usage, susceptible to fine-tuning here and there which does not affect the larger picture, particularly when one is dealing with hundreds, even thousands, of occurrences." Likewise, the analysis presented here his of course amenable to fine-tuning. Any time one is

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[10] Note that throughout this study, I will some times use the term "polysemy" more broadly to describes words like כי in all their various functions or more narrowly to describe multiple uses or senses within a word class (e.g. adverbial conjunction) in distinction from polyfunctionality which I use to refer more specifically to words with uses that span multiple word classes. This distinction will be especially relevant in chapter 6.

involved in counting particular uses, there will always be differences in analysis (in fact, as will be discussed in chapter 6, this is the very thing that drives language change resulting in polysemy). However, it is hypothesized that the overall picture presented of כי will reasonably approximate its realistic usage profile.

More broadly, I hope this study of כי will model an approach to the analysis of all sorts of grammatical words that may be polysemous within a particular word class and even polyfunctional across word classes. As already indicated, כי is an especially suitable candidate to model such an approach, since it represents a quite multifaceted case of polysemy and polyfunctionality.[11]

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[11] As Gross (1991:97) observed when approaching the issue of subordination and coordination in Hebrew: "Für eine Probeschürfung bietet sich die Konjunktion כי an, da sie sehr häufig und in semantisch-syntaktisch sehr unterschiedlichen Sätzen belegt ist." "For a pilot-study, the conjunction כי is suitable, since it is very frequently used in semantically-syntactically very different sentences."

2   Past research on כי in the Hebrew Bible

> *"[Particles] are by no means static linguistic entities, morphemes to be scrutinized independently of their contexts, but are rather agents of movement. The intended meaning becomes alive and dynamic in the ways that the particles are employed… [כי] is not only one of the words most frequently employed in the Old Testament, but also one with the widest and most varied range of nuance and meaning. Pedersen calls it the most comprehensive of all Hebrew particles."*
>
> Muilenburg (1961:135–136)

The purpose of this survey is not to give an exhaustive account of past research on כי, but rather to trace some of the major contours of previous explorations in order to both build on their insights and to highlight certain understudied perspectives to which the present work hopes to contribute.[12] To this end, I will provide an overview of past research on כי. This will begin with a very schematic sketch of pre-modern perspectives on its functions. This will be followed by a sketch of treatments of כי in several standard modern grammars and lexica. I will then focus on modern studies that (like the present project) have aimed at giving a more or less complete account of the full usage profile of כי. After the overview of previous work on כי, I will summarize the more consistently agreed upon characteristics of כי. Its functions and their preferences for certain syntagmatic contexts (along with crosslinguistic investigation of words similar to כי in Part Two) will be used heuristically to determine which features of כי are most crucial to tag in my database in order to categorize its usage, the analysis of which will be presented in Part Three. I will also highlight continuing disagreement between various approaches to כי as well as areas where our understanding of its nature within the Hebrew Bible can be expanded. Thus, this survey will set the stage for the contribution I hope to make in the following chapters.

2.1   Pre-modern perspectives on כי

Follingstad (2001:25–37) provides a very helpful overview of early and medieval accounts of כי, which I will not add to here, but only attempt to summarize.[13] Follingstad examines several groups of pre-modern writers treated under several categories. He describes the "scribes and

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[12] For the most extensive summary of research on כי, see Follingstad (2001:15–63) from which this chapter has greatly benefited. Cf. Bandstra (1982:2–7); Benigni (1999:126–130); and Meyer (2001:41–50).

[13] Follingstad's overview is invaluable, since not only does he construct a sketch of several representative scholars from the various periods of inquiry into Hebrew grammar, he also draws on several unpublished translations of Medieval Hebrew grammatical analyses originally written in Arabic.

sages" as having varied comments on כי ranging from allegorical accounts based on gematria, onomatopoeia, and more general allusion, to more literal interpretations. He also discusses the contributions of medieval grammarians who are grouped into the "elders of the sacred language", the "later masters", and commentators and exegetes more generally. He then discusses the contribution of medieval Christian grammarians.

A key representative of the literal interpretation of כי among the "scribes and sages" is Rabbi Lakish (c. 200 AD) who identified four uses: "if", "that not", "rather/except", and "because". Follingstad (2001:28–29) explains, "Thus, Rabbi Lakish recognizes the **conditional** (אי), **adversative** (אלא), and **causal** (דהא) uses of כי. The gloss 'that not' for (דילמא) roughly approximates a **consecutive** use of the particle", and therefore "a relatively wide range of meaning was attributed to כי at a very early stage."[14]

The study of Hebrew grammar for its own sake then reached something of a golden age among the Medieval Jewish grammarians. Under the designation "elders of the sacred language", Follingstad discusses the work of Saadia Gaon (882–942 AD), the Karaite David ben Abraham al Faasii's dictionary (950 AD), Abuul-Faraj Haruun ben Al-Faraj's grammatical treaties entitled *Mouchtamil*, and Rabbi Judah Ibn Balaam. These scholars built upon the previous tradition represented by Rabbi Lakish. This period witnesses more detailed delineation of uses, beyond the four explicitly described by Rabbi Lakish (e.g. explicitly discussing additional uses such as temporal and concessive). At the same time, there is a basic effort to describe the family resemblance between some similar uses (e.g. adversative "but" and exchange/substitution "rather"). A representative of the "later masters" is Rashi (1040–1105 AD) who, going beyond Rabbi Lackish's four uses, explicitly comments on cases of what he sees as substantival "that" (e.g. Gen 24:33), modal "perhaps" (Ex 20:22; 23:5; Deut 7:17; 20:19), and exclamative "how" (e.g. Ps 42:5). Thus, these later medieval scholars continued to more carefully delineate uses of כי, including more marginal uses and debating the occurrences and nuances of recognized interpretations. Furthermore, there is increasing debate among grammarians concerning uses recognized to be ambiguous between several meanings of כי (e.g. concessive versus causal, or reading כי אם as "for if" versus "except"). For the most part, pre-modern studies seemed to focus

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[14] Follingstad often uses bold font throughout his text. My own emphasis added to quotations will be noted.

on creating taxonomies of the various functions of כי.[15] A reason for this may be seen in the following observation noted in Follingstad (2001:26): "Hirschfeldt reckons that the translators of the Targums may have been the first Jewish grammarians since they may have treated Hebrew more scientifically due to the demands of the translation task for proper linguistic understanding (1912:5)." In other words, the earliest analyses of כי seem to reflect pioneering efforts to provide suitable renderings in translation. This tradition continued in the medieval period, for example, with the Karaite grammarian David ben Abraham al Faasii, whose work, as noted by Follingstad (2001:30), was likely directed at "Karaite seminary students, as a foundation for Bible translation and interpretation which proved very influential for following translators." Similarly, Rashi's study of Hebrew grammar was likely prompted by exegetical concerns, who "probably due to his exegetical orientation was often faced with the exegesis of כי" (Follingstad 2001:32). However, while greatly expanding the knowledge of Hebrew grammar, even these later scholars did not move much beyond a taxonomic approach.

As for Medieval Christian grammarians, Follingstad (2001:34–35) notes the clear impact that Jewish grammarians had on them due to the fact that Renaissance Hebraists learned Hebrew from Jewish mentors. Thus, they tended to reflect the approach to כי seen among Jewish scholarship. However, there was a lack of focus on syntax and particles. Follingstad (ibid:35) summarizes,

> Reuchlin, reckoned the first major Christian BH grammarian, notes in particular the following meanings of כי which correspond to various semantic clause types: causal 'for', substantival 'that', consecutive 'that', and adversative 'but'. His analysis pretty well summarizes the perspective of the early Christian grammarians…There is only some agreement on other adverbial uses such as the concessive, conditional, as well as the asseverative uses of the particle.

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[15] As an exception to this, Follingstad (2001:33) argues that Rashi's close comparison of it כי with אשר (a deictic particle according to modern classification) implies that Rashi viewed כי as a type of deictic particle. For reasons that will be discussed in section 6.3.1 where I discuss the relationship between adverbial connectives and relativizers, Rashi's intuitions about the similarity between כי and אשר were keen. However, we must be very cautious not to attribute to him a perspective of כי as a particle whose meaning is reduced to a highly abstract, merely deictic function, especially as it relates to the so-called asseverative or emphatic use, which Bandstra (1982:30) concludes "was unrecognized in the linguistic tradition until the modern era." However, Schoors (1981:247) has pointed out that the closely related כ has been described as an "affirmative" some time ago by David Kimhi (1160–1253 AD) who identifies cases of כף האמיתות called in later grammars *kaph veritatis* (see Chomsky 2001:126–128 for a brief sketch of Kimhi's contributions).

Follingstad (ibid:337) summarizes a representative sample of these early and medieval Jewish and Christian grammatical treatments of כי which I reproduce here in the following table.[16]

Table 2.1 Uses attributed to כי by pre-modern Jewish and Christian scholars[17]

Attributed meanings of כי in pre-modern Jewish grammarians

	RL	SA	AFS	AFJ	RB	RS
Adverbial adjunct clauses						
Causal	X		X	X		X
Temporal		X	X	X	X	X
Conditional	X		X	X	X	X
Concessive		X			X	
Asseverative clauses						
Asseverative		X			X	X
Exclamative		X				
Adversative	X	X	X	X	X	X
Exceptive	X		X		X	X
Substantival clauses						
Compliment				X		X
Consecutive	X				X	X
Yes/No questions[18]			X			
Modal "perhaps"	X				X	X
Relative		X				X

Attributed meanings of כי in pre-modern Christian grammarians

	BL	CL	R	F	M	B	S	L
Adverbial adjunct clauses								
Causal	X	X	X	X	X	X	X	X
Temporal							X	
Conditional							X	X
Concessive	X	X				X		
Asseverative clauses								
Asseverative		X				X	X	
Exclamative				X				
Adversative		X	X	X	X	X		X
Exceptive		X	X	X	X	X		X
Substantival clauses								
Compliment	X	X	X			X	X	
Consecutive		X					X	
Yes/No questions	X	X						
Relative		X						

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[16] Follingstad groups these according to his own categorization of uses into the three superordinate categories of adverbial adjunct clauses, asseverative clauses, and substantival clauses.

[17] RL = Rabbi Lakish, SA = Saadia Gaon, AFS = Al-Faasi; AFJ = Al-Faraj, RB = Rabbi Judah Balaam, RS = Rashi, BL = Buxtorf's Lexicon, CL = Castell's Lexicon, R = Reuchlin's grammar, F = Fagius' grammar, M = Martinius' grammar, B = Buxtorf's grammar, S = Schickardus' grammar, L = Leusden's grammar. Follingstad complied this list of uses attributed to כי sometimes from the primary sources but often from secondary sources describing the work of these scholars. One must also keep in mind that some of these attributed uses were deduced by Follingstad from translations done by these scholars. Thus, this helpful synthesis must be viewed with those caveats in mind.

[18] This refers to the form הכי used in rhetorical yes/no questions such as in Gen 29:15.

From this brief sketch of pre-modern perspectives on כי we can see that certain uses were commonly recognized among scholars and grammarians, especially the causal and adversative uses. The impetus for the study of Hebrew grammar was also strongly oriented toward translation and exegesis, both for the early Jewish scholars as well as for the Renaissance and Reformation Christian Hebraists. This orientation seems to be reflected in the largely taxonomic approach of listing the various uses of כי. We do, however, see some preliminary attempts to describe the family resemblance between uses and debate cases that permit multiple readings.

2.2   Modern grammars and lexica

I turn now to an overview of the treatment of כי in some of the major modern grammars and lexica.[19] Once again, my focus will be on noting the different uses of כי recognized, the observation of any syntactic distributions, and attempts to explain, rather than simply describe, its polysemy.

2.2.1   Grammars

The grammars of Gesenius and Davidson are taken as representative of nineteenth-century treatments (of course, subsequent editions continued to be produced into the early twentieth century).[20] Waltke & O'Connor (1990), Van der Merwe *et al.* (1999), and Joüon & Muraoka (2006) are taken as representative of twentieth- and early twenty-first century grammatical treatments.

2.2.1.1   *Gesenius*

As stated in the second English edition of Gesenius (1910:§104.a), כי is a conjunction which serves to "connect sentences, and to express their relations one to another." More specifically, Gesenius lists the following uses: asseverative "surely" (in oath formulas, §149.d) or corroborative "verily" (§148.d, §159.ee), adversative and exceptive (§152.c, §163.a–d), substantive (object clause after verbs of perception and speech, §157.a–b), causal (§158.b), conditional (§159.z–bb), concessive (§160.b), temporal (§164.d), and consecutive (§166.b). Only non-systematic observations of syntactic distribution are noted.

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[19] For an extensive overview of nineteenth- and twentieth-century grammarians and lexicographers, see Follingstad (2001:36–39, 338–341).

[20] Other notable grammatical treaties of Biblical Hebrew can also be mentioned (e.g. König 1897;Williams & Beckman 2007). However, the works I discuss in this overview cover all the relevant perspectives that can be found in past literature on כי, even if they may also be found elsewhere.

14

2.2.1.2 *Davidson*

Davidson (1902) treats several uses of כי under the category "affirmative sentence," including cases often labeled asseverative (e.g. Gen 18:20, §118.1), adversatives (ibid), and the use of כי in oaths (§120, although he glosses these as the complementizer "that"). He identifies the conditional use (§129–132.2). Here he includes some discussion of what has been called the consecutive use (e.g. when כי marks the apodosis of a conditional construction). At times he posits a pleonastic interpretation when collocates appear with כי which he judges to be performing the same function. He treats the temporal use in §145. In §146 he discusses uses of complementizer כי in which it governs a clause functioning as the subject or object of the main clause (including כי recitativum). Causal כי is specifically singled out as a "common" usage (§147), including cases with collocates such as יען which he regards as reinforcing "emphasis." He also identifies what he calls the "consequential" use of כי (§150) which is the same as what others call "consecutive." Lastly, he discusses uses of restrictive, adversative, and exceptive כי (§153–155). As with Genesius, while certain syntactic features of usage are observed, no systematic analysis is attempted.

2.2.1.3 *Waltke & O'Connor*

The grammar by Waltke & O'Connor (1990:§38.1g) seems to categorize all conjunctions other than ו (including כי) as subordinate (cf. ibid:§39.3.4.e). Specific uses identified as a logical connective include conditional (ibid:§38.2.d–e), final/result clauses, especially after a question (ibid:§38.3.b), and causal, which is observed to be the most common use (ibid:§38.4.a). No distinction is made between different types of causal relations or collocations. Exceptive כי אם is also identified (ibid:§38.6.b). Temporal כי used alone (contemporaneous time) or with עד (subsequent time) is also discussed (ibid:§38.7.a). The use of כי as a substantive either as a subject clause or object clause after nouns of perception is also listed (ibid: §38.a–d). However, despite these identified uses, Waltke & O'Connor (ibid: §39.3.1) go on to claim that in its use as a clausal adverb, כי is "emphasizing the clause it introduces" and explain: "Traditionally כי is considered a conjunction (cf. 'for'), but we consider it rather to be an emphatic adverb (cf. 'indeed')." They say this move is for the purpose of "aligning כי with other forms that work similarly" (ibid). Thus, while listing traditionally recognized uses, they say it cannot actually be separated from its supposed emphatic use (ibid:§39.3.4.e) and thus appear in the end to adopt a

15

more flattened approach to כי as basically emphatic. They go on to discuss the use of כי as an emphatic adverb (ibid:§39.3.4)

2.2.1.4   *Van der Merwe, Naudé, & Kroeze*

Van der Merwe *et al*. (1999:§40.1) explicitly acknowledge that the usage of כי spans both coordinate and subordinate status. Their treatment of כי integrates both semantics and syntax by grouping uses according to the ordering of the כי clause relative to the main clause (reminiscent of Bandstra 1982 and Aejmelaeus 1986 discussed below). When כי precedes the main clause, it is subordinate and may be used as a conditional, temporal (observing the occasional ambiguity with a conditional), or causal conjunction. When כי follows the main clause, it may be used as an object clause (after verbs of perception or speaking), or a coordinating causal conjunction. These causal clauses are not only syntactically different than their subordinating counterparts in preposed position before the main clause. They are also semantically different. Specifically, "The causal relation is thus not due to natural laws but is due to the speaker's own reasoning" (ibid:§40.9.2.2.2). While not all causal כי clauses following the main verb are necessarily coordinate (as will be argued in chapter 5), the observation of the connection between syntax and semantics in the analysis of causal כי is significant for the present work. As Follingstad (2001:43) notes regarding Claassen (1983) and Van der Merwe's (1993) previous analyses of כי on which Van der Merwe *et al*. (1999) build:

> [They] represent an advancement in the nuanced description of causal כי. Claassen brings in the notion of evidential use of causal כי where the causality which כי expresses does not relate to the text world, but is oriented to the speaker at the level of the speech act. That is, כי marks the causal relationship between the statement and the reason for making the statement (1983:37). Van der Merwe builds on Claassen's insights, and those of the linguist Schiffrin (1987), and delineates three levels of speaker-oriented causality which כי marks: fact-based causality, action-based causality, and knowledge-based causality (1993:40; Schiffrin 1987:202).

This recognition of the distinct "subjective" (i.e. speaker-oriented) uses of causal כי will be seen to anticipate Sweetser's (1990) Domain Theory and prove crucial in the analysis of causal connectives in chapters 3–5 and of causal כי in chapter 8. Furthermore, adversative and exceptive uses of כי occur after a negated main clause. When occurring after the main clause, especially following a question, כי may also be rendered "that" in what is labeled by others as the

16

consecutive use. Finally, Van der Merwe *et al*. (1999:§40.9.2.5, §41.3.9) also identify what they refer to as a modal use of כי what others call the asseverative use, especially in oath formulas.

2.2.1.5 *Joüon & Muraoka*

The translation and revision by Muraoka of Joüon's 1923 grammar written in French represents a blend of early twentieth-century with late twentieth- and early twenty-first century scholarship through its various revisions. One consistent focus has remained through the revision: "The grammar is essentially descriptive in its approach and conception, or to put it differently, its approach is synchronic, and not diachronic or historical" (Joüon & Muraoka 2006:xiii).

Overall, they describe כי as a subordinating conjunction in its uses meaning *that, when, if, because, but* (ibid:§104.a). Joüon & Muraoka (ibid:§157.c–d) note the use of כי to head an object clause, including introducing direct speech. They (ibid:§157.e) identify the use of כי as a noun phrase compliment (e.g. Ex 3:12) as an extension of its use as a verb phrase compliment (i.e. object clause after verbs of perception or speaking). They appear to treat הכי as an extension of the complementizer use (ibid:§161.j). They (ibid:§164.b) identify the so-called asseverative use of כי in oaths and the apodosis of conditional clauses, as well as some other cases, such as when כי precedes the predicate (referencing the often cited Gen 18:20). They suggest that this use may be derived from an originally deictic meaning, or from its use as a relative. They also list כי אם with this usage. They go on to suggest that asseverative uses may have derived from the use of כי in oath formulas. That is, they seem to analyze כי in full oath formulas with a verb like נִשְׁבַּע as a complementizer "to swear *that*", explaining "For a positive statement [oath], Hebrew uses כי *certainly*, which is no doubt derived from נִשְׁבַּע כִּי" (ibid:§165.e). However, they caution against the vague notion of "emphasis" (ibid:§164.g) (cf. Muraoka 1985 mentioned below).

They also list temporal (ibid:§166.o), conditional (ibid:§167.c), consecutive (ibid:§169.e), and causal (ibid:§170.d) uses. Furthermore, one of Muraoka's additions to Joüon appears to be a distinction between כי marking a causal relation between states of affairs and כי presenting the evidence or argument for an assertion (ibid:§170.d.a). They do observe that causal כי tends to appear after the main clause, but only attribute this to "the relative importance of each of the two" (ibid:§170.n). The concessive use of כי is also identified, which they associate with causality (ibid:§171.a–c). Adversative and exceptive uses of כי and כי אם are also identified after

17

negation, and they note, "From the exceptive sense of *if … not* (Lat. *nisi, quin*) is derived the sense of absolute necessity, *necessarily*, which is equivalent to *assuredly*" (ibid:§172.c–173.c).

2.2.2   Lexica

The dictionaries by Gesenius, Brown-Driver-Briggs, Koehler and Baumgartner, and that edited by Clines are taken as representative of the Hebrew lexicography from the nineteenth century to the present.[21] The following is an overview of their treatments of כי.

2.2.2.1   *Gesenius*[22]

Gesenius begins by categorizing כי as a proper relative pronoun like אשר (e.g. Gen 3:19, cf. 23), which he regards as a "primitive" and "rare" use. He then goes on to describe all other uses under the heading of a "relative conjunction." These include its function as a complementizer after verbs of perception and speech and הכי (which he treats as a complementizer just as Joüon & Muraoka, also comparing it to French *n'est-ce-pas-que* "is it not *that*…"). In the category of complementizer are also placed the collocations אפס כי, אף כי, הנה כי, and marking direct speech. He also identifies the consecutive use, intensive "even" use, temporal use (with which he also mentions the conditional use), and the use of marking the apodosis of a conditional construction. Regarding the causal use, Gesenius notes that when it follows the main clause it is rendered in Latin and Greek with the coordinating conjunctions *nam* and γαρ, respectively, but does not explicitly distinguish between different types of causal relations or their correlation with syntactic patterns. It is noteworthy, however, that the difficulty of identifying the causal relationship marked by certain uses of כי was not at all unknown to early lexicographers like Gesenius (as critics of "biblical English" and the translation of כי as "for" seem to imply). Nevertheless, rather than rushing to some other vague notion such as "emphasis", Gesenius observes: "Sometimes the causal power of this particle is not immediately obvious, but by a careful examination of the connection of the sentences, it is found to exist" (Gesenius & Tregelles 1846:392). Gesenius goes on to posit the adversative use as being derived from the causal, often (though not necessarily) after negation (including כי אם, though later on he

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[21] As I stated above regarding the grammatical treatments I summarize here, other lexica may be mentioned. However, these representative texts cover the range of lexical treatments of כי in past research. This is judged to be sufficient for a comprehensive overview, even if not exhaustive.

[22] I am using the version of Gesenius' *Hebrew and Chaldee Lexicon* prepared by S.P. Tregelles in 1846.

18

points out that in some cases they are to be interpreted as separate).[23] The concessive use is also said to be derived from the causal use. As for various uses with prepositions (e.g. עַל, עֵקֶב, יַעַן, תַּחַת), Gesenius says that כי turns them from prepositions to conjunctions, presumably through its use as a complementizer. However, he suggests that כי על כן should be read as if the כי were transposed after על כן, thus reading it על כן כי (i.e. "on account that"). However, Gesenius & Tregelles (1846:393–394) includes a note after this saying that Gesenius later rejected this idea.

2.2.2.2 *BDB*[24]

Brown-Driver Briggs generally corresponds to Gesenius in identifying the use of כי as a complementizer, marker of direct speech, marker of an apodosis (with "surely" added), intensive, consecutive (especially after questions), temporal, conditional, concessive, and causal (most commonly after the main clause). Many of the collocations are treated as extensions of the complementizer sense with a basic gloss of "that" combined with the meaning of its collocate (e.g. כי in oaths from which the asseverative may have developed, אַף כִּי, וְכִי, הֲכִי). When used after prepositions, כי is said to convert them to conjunctions. However, כי על כן is treated separately either pleonastically as a causal conjunction or as a composite with the gloss "for therefore." Like Gesenius, BDB states, "the causal relation expressed by כִּי is sometimes subtle, especially in poetry, and not apparent without careful study of a passage" (BDB:473). However, they also go on to delineate more fine-grained causal categories and distinguish between a causal relation between states of affairs and the speaker's motivation for making a statement or asking a question. Like Gesenius, they also observe that the causally related elements may be much more complex than simply adjacent clauses or explicitly stated propositions. Rather, causal relations may be drawn between a variety of complex textual and pragmatic components (such as implied propositions). As an example of such complexity, they discuss cases where a causal clause may be separated from its related clause(s) by intervening text. They even observe cases where the כי clause may motivate a single word in the clause to which it stands in relation (BDB:474).[25]

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[23] In terms of providing an explanation of the polysemy of כי, Benigni (1999:126) also notes, "Gesenius and Gesenius-Buhl, derive from the relative meaning the causal meaning and link to the latter one the function of כי as an explicative conjunction and its use after *verba affectum*", citing Gesenius (1829–1842) and Gesenius & Buhl (1952).

[24] I am using the Logos edition of the Enhanced Brown-Driver-Briggs Hebrew and English Lexicon.

[25] In the sources I have consulted, this seems to be the first explicit description of such a use, the concept of which finds formal expression in the notion of the metalinguistic domain in Domain Theory and Mental Space Theory introduced in chapter 3 and discussed in relation to causal connectives in chapter 4.

Lastly, they are careful to note that many tokens of כי permit multiple possible readings. כי אם is treated separately, similarly to Gesenius, as either functioning together (meaning "except, but, only, nevertheless") or individually. In oaths they take the collocation as a means of strengthening כי as "truly".

2.2.2.3   *HALOT*

Following Muilenburg (discussed below), HALOT begins by describing what they present as the first major heading of כי as a demonstrative particle with the typical asseverative glosses ("yea, verily, indeed") in an oath and the apodosis of a conditional clause. Next they list the adversative "but", exclusive "only", and exceptive (with כי alone or כי אם). The next major heading is listed as a hypotactic (i.e. subordinating) conjunction under which is listed its causal use.[26] They seem to take the collocations אף כי, וכי, הכי, and אך כי as a complementizer (i.e. "that") simply joined to its respective collocate. Of course, they also list its use as a complementizer with verbs of perception or speech. Additionally, they posit the so-called כי *recitativum* used to mark direct speech. In terms of use with prepositions, they refer readers to the preposition entries. However, when consulting the other entries, only glosses are given without much discussion, if any at all. They then list the temporal use, which they state developed into the conditional use (which is corroborated by the crosslinguistic data discussed in chapter 6). Finally, concessive, modal "as", and final "that" uses are listed. Overall, there is notably even less syntactic description of uses than in Gesenius and BDB and no discussion of the complexity of causal relations noted in earlier treatments, such as the syntactic or semantic distinction between different types of causal relations.

2.2.2.4   *DCH*

The *Dictionary of Classical Hebrew* edited by Clines is the most extensive lexicographical treatment of Ancient Hebrew to date and systematically incorporates data from extra-biblical sources, such as Qumran, Ben Sira, and inscriptional material, in addition to the MT. The basic summary of uses of כי delineated in DCH (384) is given at the beginning of the entry as follows: 1) with causal clause, "for, because"; 2) with 'object' clause, "that"; 3) with

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[26] The influence of such an approach to כי is reflected in the new edition of Gesenius *et al*. (2005:539–540), which rewrites it to reflect this categorization—first listing it as an affirmative particle, then a conjunction with various sub-senses—and seems to flatten out Gesenius' otherwise much more nuanced delineation of causal categories.

relative clause, "that, which"; 4) with purpose clause, "so that"; 5) with conditional/temporal clause, "if, when"; 6) with concessive clause, "although"; 7) כי עתה or כי אז "then (by) now" as apodosis of a conditional construction; 8) with adversative clause, "rather, yet, nonetheless, except"; 9) as emphatic or phatic particle, "surely, indeed; now, then in fact, namely; how!"; 10) (perhaps) as adverb of consequence, "so, therefore"; 11a) כאשר … כי כן perhaps "as … so"; 11b) כן … כי perhaps "as … so;" 12a) as interrogative particle; 12b) as interrogative pronoun, "who?"; 13) apparently as a preposition, "despite; on account of";14) כי אם in various senses (e.g. "rather, apart from, except, unless" and in oaths); 15) כי in other compound conjunctions (i.e. גם כי, אף כי, אך כי, and כי אם-לא). While noting that causal כי often follows the main clause, there is not much engagement with the various causal nuances and their correlation with variation in syntax, though limited syntactic observations are made with some other uses. There is also a vague note on the fluidity between conditional and temporal uses. In all, one of the main strengths of DCH is its numerous references to biblical and extra-biblical texts for examples of each usage identified. However, as pointed out by Follingstad (2001:38), "Nonetheless, the DCH entry mainly amounts to a mere listing of all the possible meanings."

2.3 Comprehensive studies on כי

Here I summarize the main treatments that have attempted to provide a more or less comprehensive (though not necessarily exhaustive) analysis of the various functions of כי. Rather than strictly group them according to similarity of approach, I will treat each one chronologically (though, some trends also fall into chronological organization) and then offer a synthesis of major agreements, continuing debate, and the potential contribution of the present research, in section 2.4. I will pay particular attention to which uses of כי are recognized, whether any patterns of distribution are observed, and any attempts made to explain its polysemy or the relationship between uses.

2.3.1 Redslob

In 1835, M. G. M. Redslob published an extensive study of the particle כי in Latin. Redslob (1835:11) appears to be the first to propose the etymological source of כי to be from the root כון meaning "to be firm." Based on arguments from other forms in Hebrew and cognate languages (especially Arabic), he argues that the final nun dropped off leading to כי as well as to

21

what he regards as other related forms such as כן, כה, כ and אך (ibid:12). From this, he views the basic meaning of כי to be affirming the truthfulness of something and therefore calls it a *particulum positivum* "positive particle" or *particulum affirmativum* "affirmative particle" (ibid:28–29). He goes on to also describe it as a *particulum theticum* "thetic particle" which he divides into four categories: *thesis sensu strictissimo*, *hypothesis*, *synthesis*, and *parathesis* (ibid:30–31).[27] Regarding the first category, *thesis sensu strictissimo*, Bandstra (1982:2–3) summarizes, "<u>Ky</u> predicates the reality of the statement which follows. <u>Ky</u> introduces that which has already been established and the <u>ky</u> gives force to the statement." This is divided into several subcategories. He first discusses the "pure" (*puram*) use, which is claimed to be most evident in simple propositions. An example of this according to Redslob is Isa 15:1 in which כי occurs at the beginning of an utterance. Other subcategories of the *thesis sensu strictissimo* use include כי in oath formulas (Redslob 1835:33), the use of כי after words like אמר (which he says is not quite as forceful as the "pure" use, but which he describes as "asseverative") such as Gen 29:33, and corresponds to Greek οτι (ibid:34–35). Furthermore, as described by Bandstra (1983:3), "Redslob interprets the <u>ky</u> which introduces the object clause of a verb of perception in like manner. The <u>ky</u> 'establishes' the reality of the object." This leads him to translate passages like Gen 1:4 along the lines "God saw the light: It was very good."[28] The second use is *hypothesis* (Redslob 1835:38), which Bandstra (1982:3) identifies as circumstantial כי (a common category in other treatments), though Redslob offers no examples. As for usages under the category *synthesis* (Redslob 1835:38–42), Bandstra (1982:3) helpfully summarizes, "Two notions or propositions are compounded by means of this <u>ky</u> to form an integrated statement. The <u>ky</u> establishes a strong relationship between two components." This category includes the use of כי as a nominal compliment, as the head of an apodosis in a conditional construction, and as an adversative after a negated main clause. Lastly, Redslob's (1835:42–50) final category, *parathesis* includes cases where "Two propositions complete in themselves are logically connected by means of <u>ky</u>", specifically in terms of comparison, location, quality, time (which Redslob 1835:49 equates with Greek ὡς), or causation (Bandstra 1982:4). Redslob (1835:49) observes the causal use of כי to be by far the most frequent of all its uses. Thus, in Redslob, we have an early attempt to identify the "basic" meaning of כי as an "affirmative" particle based on a

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[27] This summary benefitted much from Bandstra's (1982:2–4) discussion of these categories.
[28] Redslob's (1835:36) Latin translation reads *vidit deus lucem: sane erat bona*. He renders Gen 6:5 analogously.

hypothesis of its etymology, which Follingstad (2001:49) calls the "etymological-emphatic approach."[29] However, in line with pre-modern perspectives, he recognizes its use as a causal connective to be the most common.

2.3.2   Muilenburg

The next major study taking כי as its exclusive focus comes over a century later with Muilenburg's (1961) analysis of the linguistic and rhetorical uses of כי. Like Redslob, Muilenburg takes an "etymological-emphatic approach." While not proposing a specific diachronic origin of כי as Redslob, Muilenburg (1961:136) begins with the lexicographical consensus that it had an original demonstrative/deictic character and asserts that as such, "It is designed to give emphasis, to give force to a statement."[30] He sets out to show that this so-called "emphatic deictic" sense is the basic meaning of כי. He first lists several uses of כי with what he identifies as other emphatic words.[31] He then discusses the use of כי to govern various levels of text, from cola and sentences to larger spans of text. Here he observes that temporal uses tend to appear before the main clause. This is followed by a section describing the use of כי to introduce motivations, especially in its causal use in casuistic and apodictic laws. In terms of all the potential forms that could be used to motivate commands, questions, exclamations, promises, summons to praise, and other speech-acts, Muilenburg (1961:151) observes, "It must be borne in mind that the words of motivation are of many kinds, but it is the particle כי above all others which is employed most characteristically." In all of this he attempts to show how the various uses of כי can be explained from the combination of its original demonstrative origin and its deictic character which result in nearly every usage being some form of emphatic affirmation. At the same time, Muilenburg recognizes a wide range of uses of כי including the so-called asseverative, causal, conditional, concessive, adversative, temporal, resultative, relative, complementizer, and interrogative uses. Unfortunately, he often leaves כי in his examples untranslated, so it is not always clear which use of כי he is advocating. He does, however, clearly

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[29] See Bandstra (1982:25–53) for a discussion of the historical development of the increasing identification of "emphatic" כי, where he also discusses the key proof texts used to argue for the function (cf. Claassen 1983:29–36). While this approach to כי began with Redslob, it was the deciphering of Ugaritic in 1930 and the identification of emphatic *k* that bolstered this view in the twentieth-century, especially by Dahood (e.g. 1966, 1968, 1970).

[30] Muilenburg (1961:137, 143) draws on several Semitic parallels, such as Ugaritic, to support a basic emphatic meaning. However, it should be noted that Gordis (1943) had already argued early on that the fact that Ugaritic *k* always appeared without the word divider and thus as a proclitic, should be regarded as evidence that it corresponded to Hebrew כ rather than כי (cf. Schoors 1981:247).

[31] These include כי with על-כן ,הנה ,עתה ,אמנם ,יען ,עקב ,על ,גם ,אף ,אך ,לאלי ,אז ,לא, and אם.

state that the most frequent use of כי is as an adverbial used in motive clauses (Muilenburg 1961:150).

Muilenburg (1961:160) concludes that, "from an original exclamatory interjection or cry it has developed into a vast variety of nuances and meanings, yet always preserving in one fashion or another its original emphatic connotations." Thus, Muilenburg conceives of a situation in which an originally highly schematic and abstract meaning gives rise to all the other uses of כי, all of which retain some measure of that original meaning. Not only has this sentiment been criticized among Hebraists (e.g. Barr 1961:107–160; Aejmelaeus 1986:195), it also goes against the findings of studies in grammaticalization which observe time and again that the semantic bleaching of words is characteristic of the latest stages of language change, not its beginnings (discussed further in chapter 6).[32] Additionally, Muilenburg (1961:136) seems to be aware of this when he writes that over time, "words lose their original dynamic associations and connotations" and become "diluted," eventually falling out of use altogether. Furthermore, it is not clear that Muilenburg succeeds in demonstrating a basic and pervasive emphatic character of כי from the uses he cites. Bandstra (1982:5) points out that in Muilenburg's analysis, "The basis for a claim to an emphatic usage is in most cases considered self-evident," even though in many cases a more specific adverbial function is readily available.

Thus, we see in Muilenburg a continued recognition of the various traditionally identified uses of כי, but also an effort to unify all these uses into a coherent whole by understanding them as direct extensions from a basic meaning derived from its diachronic origin.

2.3.3   Schoors

The study by Schoors (1981) continues the trend to trace כי back to a deictic word with an emphatic force, again drawing a parallel to the so-called emphatic *k* in Ugaritic, among other Semitic languages. Most of Schoor's analysis is occupied with describing the putative emphatic function of כי, identifying this use specifically with כי found in oath formulas (e.g. 1 Sam 20:3), the apodosis of conditional clauses (e.g. Isa 7:9), and adversative uses after a negated main clause (e.g. Gen 24:3–4). Schoors recognizes the use of כי as a complementizer (e.g. as the object or subject of the main clause, in apposition, or as a consecutive clause) and an adverbial

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[32] Note especially Barr's (1961:107) often referenced warning: "Etymology is not, and does not profess to be, a guide to the semantic value of words in their current usage, and such value has to be determined from the current usage and not from the derivation. Hundreds of examples could be adduced where words have come to be used in a sense widely divergent from, or even opposed to, the sense of the forms from which they were derived."

24

connective (primarily causal, but also temporal, conditional, and concessive). Schoors also discusses other proposed uses such as an interrogative/exclamatory use, modal "as", and relative. Schoors (1981:242) concludes that the causal use is predominant in Hebrew as well as several other Semitic languages (including Phoenician, Moabite, and Aramaic). Additionally, he briefly notes the distinction between different causal relations marked by כי corresponding to the difference between "because, German *weil*" and "for, German *denn*" (Schoors 1981:264). While dismissing this as syntactically irrelevant, he does go on to describe a special kind of causal כי which is used to justify a statement, whether a proposition or some sort of speech-act (e.g. question), or proof of an assertion (which I introduce in chapter 3 as an epistemic use) (Schoors 1981:265; cf. BDB 473–474 and Claassen 1983 discussed below).[33] However, following the etymological-emphatic approach, he identifies its basic meaning as that of a deictic particle with emphatic force. Nevertheless, Schoors (1981:245) is more cautious in labeling כי as emphatic as is seen in his incredulity toward how often that use is identified, noting for example, that "Dahood has greatly enlarged the frequency of emphatic *ki*" which Schoors describes as "exaggerated."

While not a comprehensive study of כי, Muraoka's (1985) study of emphatic words and structures, titled as such, may be briefly mentioned here. Muraoka sets out to give an adequate description of "emphasis." In his section on כי (1985:158–164), he too identifies it with an originally demonstrative meaning, which he maintains is retained in later usage and regards as the source of its "emphatic" functions. However, he considers these emphatic uses "occasional" and further cautions that "It is rather doubtful that the alleged emphatic *k* in Ugaritic is a case of genuinely analogous use" (Muraoka 1985:164). He contends that legitimate cases of emphatic כי are to be primarily found in oath formulas, the apodoses of conditional clauses, and when it occurs immediately before the predicate (e.g. Gen 18:20) (ibid:161–162, 164).

2.3.4 Bandstra

Bandstra's (1982) dissertation represents a clear break in the trend up to that time to attempt to explain the uses of כי from the etymological-emphatic approach. Rather, as Bandstra (1982:8) summarizes, "Our approach is to analyze the actual use of ky on text samples rather than to derive all meanings from a hypothetical proto-meaning. Even if we could prove ky was in

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[33] I will argue in chapter 5 that this distinction is in fact of significant syntactic and semantic relevance for the interpretation of כי.

origin deictic or affirmative this would not assure us that over the centuries as the language developed it retained this primitive sense." Bandstra also observes that the proliferations of uses identified as "emphatic-deictic" has led to a "fragmenting effect" of texts in which clauses are interpreted more atomistically, rather than with a particular adverbial relation signaled by כי.

In contrast to previous studies, Bandstra attempts to avoid the pitfall of only attending to those cases which fit with one's analysis by taking a corpus-based approach and analyzing all uses of כי within a representative corpus of the Hebrew Bible (in his case, the Pentateuch and Psalms, though he also includes analysis of many other texts outside this corpus). His detailed contextual analysis of each use of כי in his corpus of the Hebrew Bible revealed the following five basic uses: complement (verb or noun phrase complement), circumstantial (i.e. temporal, conditional, concessive), consequence (i.e. result and marking a conditional apodosis), adversion, and cause (Bandstra 1982:10–11). A key argument of Bandstra (1982:16) is that "the relative order of a non-embedded <u>ky</u> clause with respect to its main clause is the decisive determiner of the <u>ky</u> clause main function and hence of sentence type." Bandstra maintains that if the כי precedes the main clause, it is a "circumstantial clause" (i.e. temporal, conditional, or concessive). If it follows the main clause, it communicates causation, adversion, or consequence (see ibid:413 for statistics). He discusses further subcategories and distinguishing factors in chapters 4–8 of his dissertation. These include other syntagmatic elements such as negation in the main clause, which is characteristic of adversative uses of כי (ibid:150–152, 414). Bandstra notes that the distribution of verbs used in the כי clause may also serve to distinguish different uses. For example, he notes that *yiqtol* verb forms are almost exclusively preferred in conditional כי clauses (ibid:126, 414). Causal כי, on the other hand, seems to admit all manner of verb forms (ibid:415).

Furthermore, Bandstra's study offered an alternative analysis of a large number of so-called emphatic uses. As noted above in the discussion of Muilenburg, Bandstra pointed out that many of the cases identified as emphatic are simply asserted as self-evident when in fact, one or more interpretations of traditional categories readily recommends itself without difficulty. For a discussion of the main proof texts for the emphatic use, see Bandstra's (1982:42–49). It is not that there may not be emphasis in these contexts, but that it cannot simply be attributed to כי (ibid:49; cf. Claassen 1983:33). Beyond individual examples that may have a debatable reading, Bandstra showed that whole categories of so-called emphatic כי could be better explained

26

according to discourse pragmatics in terms of marked word order, for example, in one of the key proof texts of emphatic כי—Gen 18:20 (Bandstra 1982:42–44).[34]

Bandstra also takes a comparative approach and analyzes the uses of כי in Ugaritic, as well as a sampling of texts from Canaanite (including Phoenician, Punic, Archaic Hebrew inscriptions, and Moabite), Old Aramaic, and Assyrian. Bandstra (1982:357–358) concludes: "As in our examination of BH ky we find no justification for an emphatic meaning of k in Ugaritic." Usage in the other Semitic languages surveyed also largely fits into one or more of the uses identified in the Hebrew Bible corpus (Bandstra 1982:417).

Of particular interest for the present study is the fact that, in addition to recognizing the causal use as the most common function of כי, Bandstra also attempts to delineate more nuanced layers within that category. He delineates reason, ground, and motive. These are primarily (sometimes exclusively) distinguished on formal grounds (though semantics also comes into play). Reason is defined as a cause-effect relationship between two clauses in the past tense used to answer a question or give the reason for the name of a person, place, or thing. Grounds clauses are defined "as a condition, state or event which explains a present or future situation" (Bandstra 1982:167). Motive clauses are defined as כי clauses giving the motivation for behavior communicated in the main clause, usually containing an imperative verb. Bandstra identifies this as the most frequent use of כי in his corpus.

In this regard, it is worth also briefly mentioning Claassen's (1983) work here, focusing on what he calls "speaker-oriented" uses of causal כי, in which he also delineates more nuanced causal relations, though his work seems to be independent of Bandstra.[35] Claassen distinguishes between different "levels" of causation. In addition to a causal level between two states of affairs in the world, Claassen shows that many so-called emphatic uses are actually better understood as a justification for the speaker's utterance in the main clause, such as an evidential כי clause, which is not the basis for a state of affairs in the world, but the evidence for a claim made by the speaker. In addition to an evidential use, speaker-oriented כי may also provide the general rationale for an utterance, such as background information in light of which the utterance becomes relevant, the reason for a particular word being used, or for a question being asked. This

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[34] That the word order in these cases is due to the pragmatic structuring of given and new information along the lines of topic and focus has received extensive support in Westbury's (2014; 2016) study of left-dislocation constructions. Furthermore, additional evidence for interpretations of כי clauses in oath formulas as a complementizer, rather than "emphatic", has been convincingly presented in Conklin (2011:46–59), discussed in section 9.2.1.1.

[35] A brief discussion of Claassen's study has made a welcome appearance in Tsumura (2007:48–49).

27

study also appears to be ahead of its time in offering a brief but illuminating crosslinguistic note on the "evidential function" of causal particles in modern and ancient languages including English, German, Italian, and Greek (Claassen 1983:37). In Part Two, these contributions will be seen to anticipate cognitively salient and crosslinguistically pervasive causal categories which began to be widely recognized in linguistic literature beginning with Sweetser's (1990) pioneering work on content, epistemic, and speech-act domains (as well as the metalinguistic domain) within which causal relations may hold (discussed more in chapters 3–4).

2.3.5 Thorion

Like Bandstra, Thorion (1984) undertakes a synchronic study without seeking to determine the meaning of כי etymologically.[36] Thus, he too is skeptical of the over-identification of emphatic uses. Thorion identifies a variety of uses of כי, including that of complementizer (subject, object, and appositional clauses), conditional, concessive, temporal, causal, relative, and adversative (including כי אם). Thorion further notes distributions of uses according to main clause and כי clause arrangement. For example, he observers the preference of causal clauses to follow the main clause to which they stand related. Like Bandstra and Claassen, Thorion gives special attention to several different causal nuances of כי. For example, he (1984:15) mentions the use of a כי clause to ground the naming of a place or individual (כי *ein ätiologischen Namenssätzen*). Thorion (1984:19–21) then discusses the use of כי as an *Erläuterungssatz* (explanatory clause), which is only loosely connected to the preceding text and is in fact not syntactically subordinate.[37] This seems closely related to כי clauses Thorion (1984:21–22) labels as *parenthetischer Sätzen* "parenthetic clauses" where relevant information unknown to the audience is supplied.[38] He further posits a use labeled כי *des Beweiss* which corresponds to Claassen's (1983) evidential כי (e.g. Gen 31:15). Additionally, he discusses the use of כי with other words (e.g. עד, אף, etc). While providing nuanced observations, overall, Thorion's approach appears to be essentially descriptive and taxonomic rather than explanatory with a principled organization of uses (cf. Meyer 2001:48; Follingstad 2001:57).

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[36] See Meyer (2001:47–48) for a helpful summary of Thorion's work.

[37] In his words, *Ein Erläuterungssatz scheint nicht dem vorangegangenen untergeordnet zu sein. Die Verbindung ist ziemlich locker,* "An explanatory clause does not appear to be subordinate to the previous one. The connection is more loose" (Thorion 1984:19). An example of such a non-subordinate use of כי that he discusses is the second token in 1 Sam 16:7.

[38] Cf. Van der Merwe's (1993:41) discussion of "(unshared) knowledge-based causal relationships."

2.3.6   Aejmelaeus

The study by Aejmelaeus (1986) has elements from opposite tendencies in previous research. On the one hand, she recognizes the polyfunctionality of כי and is skeptical of the etymological-emphatic approach.[39] However, on the other hand, she explicitly criticizes taxonomic approaches and takes what may be considered a more rationalistic or theoretical perspective which considers כי as not having any meaning in itself and attributes any meaning wholly to the contexts in which it is used (ibid:194–195).[40] This theoretical flattening out of כי may have been encouraged by the explicit goal of her analysis to answer the question: "How was it at all possible that one particle could be used in so many different contexts?" thus, attempting a thoroughly explanatory treatment (ibid:193).[41] This theoretical commitment seems to be what leads Aejmelaeus' analysis to not tolerate ambiguity between uses.[42] However, as will be seen in chapter 6, this inflexibility turns out to be foreign to how language actually works.

Another question she attempts to answer is "How was it possible to distinguish among the various functions of כי in the original situations where Hebrew was spoken and understood by native speakers…" and "Is it possible to recover such inherent rules?" (ibid:193–194). In answer to these latter questions regarding how different functions of כי may be distinguished, Aejmelaeus takes a very similar approach to Bandstra (1982). That is, she identifies certain syntactic phenomena along which various uses of כי are distributed. Aejmelaeus (1986:196) writes, "One of the most important factors by which it was possible for a Hebrew reader or listener to distinguish among the various functions of כי was simply the position of the כי clause

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[39] Aejmelaeus (1986:208) does, however, concede emphatic uses of כי when it occurs directly before the verb, as in Gen 18:20 (despite Bandstra's 1982:42–44 demonstration to the contrary), and in oath formulas (for which, see section 9.2.1.1 below).

[40] Regarding purely taxonomic approaches, Aejmelaeus (1986:194) rightfully observes: "It does not suffice to list all feasible equivalents of כי and then to allow the exegete to choose in an individual case the one that seems best to suit the exegesis of the passage. This type of procedure leads—and has led—to wild and arbitrary interpretations. Not all renderings that suit a given context are correct."

[41] However, Aejmelaeus' (1986:195) analysis is not so simplistic as to propose an original single, abstract meaning which is necessarily retained in present usage, and from which all synchronic uses must be directly derived, writing: "It is hardly probable that a conjunction, any more than a noun or a verb, should carry its etymology along in all of its several functions, although some scholars, particularly the ones supporting frequent application of the emphatic interpretation, seem to suppose so." Extensive crosslinguistic research on language change (specifically of conjunctions) produced since Aejmelaeus' study confirm her intuition. This will be discussed more in chapter 6 and applied to the various uses of כי in chapter 8.

[42] For example, Aejmelaeus (1986:195) writes: "I must disagree with Muilenburg, who states that 'the same word may be rendered quite differently in the same context.'" Of course, as will be more fully argued in chapter 6, the approach I will take sees the compatibility of different uses with the same context as the driving force of language change resulting in polysemy.

29

in relation to its main clause." Specifically, she observes that כי clauses appearing before the main clause are condition, temporal, causal, and concessive. Furthermore, she intuitively observes a very close relationship between the conceptualizations of temporal, conditional, and causal uses, which she notes "is familiar to us from other languages" (ibid:198).[43] As for כי clauses following the main clause, she points out that this is most often causal, but also identifies the well-known substantive function (after verbs of perception), and the adversative function (especially after a negated clause, including uses of the collocation כי אם). She also list here the consecutive function of כי after questions, but notes that these may often be preferably read as causal (ibid:201–202).

Like Bandstra (1982) and Claassen (1983), Aejmelaeus (1986:202–203) also recognizes several different types of causal relations.[44] She delineates these as strictly causal, motivational, and indirect explanation. The first refers to causal relations between two states of affairs, the second between a behavior or action and its motivation, and the third between an utterance and the ground for that utterance.[45] Aejmelaeus (ibid:202) also observes a link between coordinating (or paratactic) syntax, position of the כי clause relative to the main clause, and more "speaker-oriented" uses (especially those with less of a connection to the propositional content of the preceding text and more of a connection to the author-audience interaction).[46] Aejmelaeus (ibid:204) notes that it is especially the difficulty of כי clauses expressing indirect causation that may have encouraged grammarians to simply attribute to them an ambiguous "emphatic function."

2.3.7 Gross

The study by Gross (1991) applies a conscientiously syntactic orientation to the analysis of כי. As summarized by Follingstad (2001:60), "Like Bandstra and Aejmelaeus before him,

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[43] Later on, Aejmelaeus (1986:207) notes that in some cases, even the difference between a causal and concessive may be no more than "a slight nuance."

[44] Cf. Van der Merwe's (1993:38–41) classification of fact-based, speech act based, and (unshared) knowledge-based causal relationships.

[45] Furthermore, Aejmalaeus (1986:203) even anticipates the notion of a metalinguistic causal relation (discussed in chapter 4) when she observes that the justification provided by the כי clause may "not refer to the full statement of the main clause but perhaps only to one word in it" (cf. BDB:474).

[46] Along with others, Aejmalaeus (1986:202) notes the analogy with German *denn* and *weil* which also show a correspondence between type of causal relation and syntactic coordination or subordination. Cf. Van der Merwe (1993:38) who goes so far as to say that when a כי clause constitutes a distinct illocutionary act, it cannot be subordinate. These observations of both scholars is very much in line with what I will discuss in chapter 5 concerning the relationship between the semantics and syntax of causal connectives.

Gross acknowledges the importance of the syntactic position of the particle with respect to its semantic interpretation (1991:98, 115)." Gross (1991:113) concludes, "*Die Stellung der* כי*-Sätze vor oder nach ihrem zugehörigen Sätz gibt eine Faustregel für die semantische Unterscheidung an die Hand: Temporale und konditionale* כי*-Sätze gehen voraus, Kausal, Adversative und Objektsätze mit ky folgen.*"[47]

Gross (ibid:98) also notes that כי may be ambiguous between coordination or subordination (citing Richter 1980:190ff). Furthermore, Gross observes that position of the כי clause is an indication of coordinate or subordinate status, and that this correlates with the semantic distinction between different types of causal relations analogous to the distinction between German *weil* and *denn* (ibid:104). Thus, he considers כי clauses following imperatives and question words coordinate, and position before the main clause or after a verb whose valency indicates subordination (e.g. verbs of perception) to be subordinate. He also identifies several cases that he judges to be neither subordinate nor coordinate (see Follingstad 2001:60–61 for a fuller summary). Once again, these studies anticipate the growing awareness of a subordination-coordination continuum, rather than dichotomy, as well as the intimate connection between semantics and syntax. These ideas will be developed further in chapter 5 and will be seen to be of crucial importance to the semantic and syntactic analysis of causal כי in chapter 8.

2.3.8 Benigni

Benigni (1999) attempts to approach the study of כי from the perspective of discourse analysis. She (ibid:133) summarizes her work with these words:

> From the analysis of the Biblical books according to textual-linguistic principles, the particle כי appears to be a macrosyntactic sign whose function is to mark a textual-level shift and a break in the text: the כי-clauses, moving from the main expression sequence and therefor belonging to a different level from the main clause—be it either in a narrative or a discourse context—would introduce information aimed at widening its contents.

She attempts to categorize usage into "explanatory" and "objective" clauses and further subdivide them based on whether they occur in narrative or discursive contexts. Benigni (ibid:133) explicitly groups conditional כי under her "explanatory" category and כי in oath formulas in her "objective" category, but it is not entirely clear why or where the other

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[47] "The position of the כי-clauses before or after their associated clause gives a rule of thumb for the semantic distinction: temporal and conditional כי-clauses precede, causal, adversative and object-clauses with כי follow."

traditionally recognized uses fit. From her (ibid:135) discussion of Judges 5:23, she seems to also group causal כי with conditional uses in the "explanatory" category. Thus, while the discourse analysis perspective is welcome (especially her attempt to identify patterns of use in certain types of discourse), the categories she arrives at appear somewhat arbitrary, and her basic definition of כי still too vague to be useful. As Follingstad (2001:52) explains:

> Critically lacking is any positive explanation of כי as a 'macrosyntactic sign' or general deictic and how it differs from all the other macrosyntactic signs (e.g., ועתה, והיה etc). The definition of the particle as marking textual transitions is also too broad and powerful, since other particles arguably do the same (e.g., אשׁר [sic] and -ו,).

Abstract definitions of כי repeatedly face such difficulties. As will be discussed further in section 6.1.2, this is due to the fact that polysemy, rather than a highly abstract monosemy, is the norm in natural language.[48]

2.3.9   Follingstad

Most recent is Follingstad's (2001) sprawling study, only the basic thesis of which can be summarized here. Reminiscent of several earlier studies, Follingstad seeks to explain the coherence of כי in its various functions by flattening it out to a highly abstract meaning, though he employs the modern linguistic distinction between semantics and pragmatics to attribute any difference in its various uses to pragmatics in context. According to Follingstad (ibid:129), the linguist's task is "…to isolate the core function from the contextual implications which the particle has in contexts." Elsewhere, Follingstad (ibid:72) summarizes, "The linguistic explanation of כי in chapters seven through nine deals with the boundary between the semantic function of the particle and its effects in different pragmatic settings." Even the most frequently identified function of כי, that of a causal conjunction, is smoothed away by Follingstad (ibid:45), writing: "it is the contention of the present work that though the clauses between which כי occurs may be causally related due to **the juxtapositions of their respective semantic contents**, it is not the specific function of the particle to explicitly mark this causality."[49] Follingstad (ibid:46) continues with his alternative proposal:

> Rather, [כי] typically marks the **Informational salience** of the semantic content between narrator/reader or speaker/hearer, and not logical relationships amongst the semantic contents of propositions **within** the text. A typical "causal" occurrence of כי in narrative,

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[48] Interestingly, Follingstad's study itself also seems to face this very difficulty as will be discussed more in chapter 6.

[49] He claims that other uses, e.g. temporal כי, face similar problems (ibid:fn.68).

for example, will either be an example of a "positive assertion" made by the narrator relative to the reader directly, or a "semi-indirect" representation of a character's thoughts, if the כי clause is embedded to the character. In either case, the causal relationship is **not** explicitly marked by כי.

Thus, Follingstad attempts to explain the variation in usage by appealing to what I will discuss in section 6.1.2 as the "core + rules" model, a move consistent with the theoretical framework of Relevance Theory which he employs. That is, the "real" meaning כי is reduced to an abstract core from which each use is supposedly directly derived in combination with the various contexts in which it is found. The primary rationale for this move is to provide a more coherent account of כי in contrast to more atomistic taxonomies of uses in other analyses.[50]

Follingstad's approach, therefore, fits most closely with previous approaches that have sought to explain כי by appealing to a basic (usually etymologically derived) use from which its other uses may be directly derived. A key argument Follingstad (ibid:56–63; 116–119) presents for such a proposal is that, while there are certainly strong syntactic attractors for certain uses of כי, a given use may be compatible with multiple contexts and different uses may be found in the same contexts. The underlying assumption seems to be that language maintains a perfect (or near perfect) consistency in the complementary distribution of uses, and any significant overlap in distribution of uses is taken as evidence that those uses are not actually part of the form's meaning. Therefore, he says כי must not be a logical connective at all, but some highly abstract particle (ibid:119). However, such overlapping distributions of usage, as I will argue more in chapter 6, is exactly what is to be expected in light of the universally observed mechanisms of language change.[51]

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[50] Follingstad (ibid:132) writes, "…a real attempt to discover the **minimal** meaning of כי will be made in order to provide a unified analysis to the particle. That is, it is assumed that כי has a core function before it is used in a text, but this minimal core must be reconstructed from all of its nuances in other contexts." Follingstad does note a major problem with such a "minimal meaning approach, writing, "One problem with the minimal (reduced-to-one meaning) approach is that the core meaning postulated may not cover the range of actual data for the particle." However, he goes one to write, "To be fair, of course, such a potentially negative result might be due to the fact that there was an error in the choice of the core meaning in the first place." However, in chapter 6, I will argue for why such minimalistic approaches to meaning consistently fail and, as Follingstad reluctantly anticipates, are simply unable to account for all the data.

[51] Even the pioneers of Mental Space Theory and Domain Theory (discussed in chapters 3 and 4) upon whom Follingstad (ibid:160–164) relies, explicitly state that such overlapping distributions are to be expected in natural language, and indeed are what produce polysemy.

2.4 Chapter summary

Past scholarship on כי is generally agreed on most of כי's uses. Specifically, most agree that it began as some sort of deictic demonstrative. Many see its so-called asseverative use as a direct extension of this. There is also general agreement on the adverbial uses (causal, temporal, conditional, concessive, adversative, exceptive with אם), the consecutive use (especially in the apodosis of conditional constructions) and substantive use as a complementizer. As summarized by Follingstad (2001:39), of all the works consulted in his extensive review of past research on כי, all "agree on three basic meanings of the particle: as an adverbial adjunct (especially a causal particle with related adverbial/circumstantial meanings), an emphatic (asseverative/adversative), and substantival 'that'…The exclamative, relative, and recitativum uses of the particle have not been universally accepted." Despite these points of consensus, the need still remains for a psychologically plausible description of the various relationships expressed by causal כי and a principled explanation for its syntactic behavior which at times displays both coordinate and subordinate syntax. Furthermore, an explanation is still lacking for the conceptual connection between כי's various uses that does not attempt to solve the problem by simplistically flattening out its genuine polysemy. Related to this is the issue of what word class כי should be categorized within—adverbial conjunction, deictic particle, complementizer, etc.

Building on the foundation of past research on כי, I proceed to Part Two of this study where I will draw together various insights from cognitively oriented approaches to language which have proven explanatorily powerful for words like כי, both in terms of its complex use as a causal connective, its extreme polysemy as an adverbial conjunction, and its polyfunctionality across word classes such as adverbial conjunction, complementizer, and discourse marker. This will allow me to offer a more fine-grained analysis of this most prototypical use of כי (as a causal conjunction) and offer an explanation of its polysemy/polyfunctionality that can simultaneously account for its coherence and diversity without sacrificing one in favor of the other.

Part Two: The semantics, syntax, and grammaticalization of causal connectives—a theoretical model

Having reviewed past research in Part One, it will be helpful now to lay out the theoretical framework of the current study, which I propose offers a fuller understanding of כי in the Hebrew Bible, both its use as a causal connective as well as how that use relates in a principled way to its others in a coherent usage profile. Presenting a well-justified framework is particularly important given the recent cross-linguistic research that has produced typologically supported and cognitively plausible analyses of connectives in a variety of languages and how their polysemies are organized. Thus, the innovativeness of the model (especially in its application to the Hebrew Bible) and the interdisciplinary nature of this research call for a clear explanation of the guiding principles and assumptions that will serve as a point of departure.

I begin in chapter 3 by describing foundational concepts for the model employed in this study. This includes a basic overview of Domain Theory, Subjectivity, Prototype Theory, and Mental Spaces Theory (MST). Then in chapter 4, I present the integration of these foundational concepts into a unified model called the Basic Communicative Spaces Network (BCSN). In this section, I present the BCSN model's explanatory power for describing causal connectives in terms of their division of labor in locating different relationships within the BCSN, yielding a semantic-pragmatic profile of such connectives. Chapter 5 then explores the relationship between semantics and syntax, showing how the semantic-pragmatic profile of such connectives motivates their syntactic profile. The resulting semantic-pragmatic and syntactic profile will provide the heuristic categories for describing causal כי in chapter 8 in Part Three. Chapter 6 concludes Part Two of this study, showing how we may situate causal כי as the most prototypical use within a variety of others by heuristically employing crosslinguistically pervasive paths of grammaticalization which reveal both the qualitative development of various uses through the cognitively motivated mechanisms of language change and the quantitative organization of those uses according prototypicality. This, along with statistical data on usage, will then serve as the basis for proposing in chapter 9 a typologically plausible diachronic history of כי that reveals the conceptual relationship between its uses and the synchronic organization of its polysemy.

3 Theoretical foundations

> *"…causal categories are fundamental to human cognition and natural language at the discourse level…Causality and Subjectivity are two of those cognitive principles that organize our knowledge of coherence relations."*   Sanders & Spooren (2009b:232–233)

3.1 Introduction

In language, speakers communicate by expressing and interpreting utterances, which together form a discourse. It is the relationships between these utterances that bind them together to form a coherent discourse. Speakers employ discourse connectives to mark a variety of relationships, not only between utterances, but also between a variety elements in the communicative event. Consider the following often-cited example.

(1) It's hot outside because the sun is shining.

Here, the speaker uses a causal connective to mark a causal relationship between two states of affairs in the external world—the temperature outside and the sun shining. However, objects of conceptualization in the external world are not the only elements in a communicative event that can stand in relationship. Consider the following.

(2) a. Surely it's hot outside, because the sun is shining.
    b. Speaker A: What do you think the temperature is like outside?
       Speaker B: It's hot outside, since the sun is shining.

In (2a), the statement "it is hot outside" is the speaker's subjective epistemic stance, explicitly marked by "Surely." In other words, it is the speaker's belief that it must be hot outside, and the basis for this belief is the fact that the sun is shining. Here, the causal relationship is not between the hot temperature and the sun shining, but between the speaker's subjective epistemic stance and its rational basis in the external world. Also note that if the connective is changed to "since," as with Speaker B's response in (2b), the connective itself constrains an epistemic reading, even without an epistemic modal like "surely."[52] Thus, while causal connectives are similar in that they mark a causal relationship, they are also different from one another in the types of causal

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[52] The notion of "constraint" is used throughout this study to refer the idea that linguistic features conspire to greater and lesser degrees to point to a particular conceptualization. Such gradation of constraint will be especially important in chapter 6 regarding the development and organization of polysemy.

relationships they communicate and the elements of the communicative event between which they draw a relationship.

The point these examples illustrate is that speakers use connectives to draw relationships between various components of a communicative event beyond elements or states of affairs in the external world. Indeed, as will be discussed below, there are a variety of what are referred to as domains present in a given communicative event that can be profiled and drawn into relationship with others by the use of connectives. For the purposes of this research, the focus will be on backward causal connectives (BCCs).[53] Speakers often employ certain connectives to specialize in relating particular domains. There may also be a more generic connective that can function in a variety of domains.

In the following sections I present an overview of Sweetser's theory of Domains (Sweetser 1990; Dancygier & Sweetser 2005) as a starting point for identifying the various domains of a communicative event that can stand in relationship to one another. Next, I present the notion of subjectivity, especially as developed by Langacker (1990), Lyons (1977), and Traugott (1995a), as a helpful model for understanding domains in terms of varying degrees of subjectivity—that is, the level of speaker involvement in each domain. I then present the concept of prototypicality. This will highlight the fact that the scale of subjectivity produces fuzzy boundaries causing overlap in the domains in which connectives are used. What emerges are more or less prototypical uses. Lastly, I will provide an overview of Fauconnier's (1994, *inter alia*) Mental Space Theory (MST) as a way of understanding domains as spaces that are built, filled, and drawn into relationship with each other in the process of communication. MST also helps account for prototypicality effects through the concept of space blending. These foundational concepts will then provide the basis for chapter 4 where I describe the BCSN as a model that integrates these insights for the semantic-pragmatic analysis of connectives—the interest of this study being its application to כי.

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[53] When it is not crucial for these distinctions to be in view, I refere to כי and similar words simply as causal connectives/conjunctions.

3.2   Domain Theory

Sweetser's (1990) seminal work on domains observed four domains that can be marked linguistically: the content, epistemic, speech-act, and metalinguistic domains.[54] The first three can be illustrated by the following, now often-cited, examples.

(3) John came back because he loved her. (Content domain)
(4) (Surely) John loved her, because he came back. (Epistemic domain)
(5) Do you want to go to the movies, because I have tickets? (Speech-act domain)

In (3), the causal clause (*because he loved her*) is the basis of a state of affairs in the external world (*John came back*). In (4), the causal clause (*because he came back*) is the basis of an epistemic stance (*John loved her*). In (5), the causal clause (*because I have tickets*) is the basis of a speech act (*Do you want to go to the movies*). Sweetser (1990:140–141) also noted Dancygier's proposal of a metalinguistic space, which was further developed in Dancygier (1998) and Dancygier & Sweetser (2005), *inter alia*. An example of a causal connective used in the metalinguistic space is the following, uttered where the speaker has been reproved for using the term "boyfriend":

(6) OK, since we're being politically correct, her **partner** is coming to dinner with her.
    (Metalinguistic domain)
    (T. Sanders *et al*. 2009:20)

In this case, a causal relationship is being drawn between an utterance (specifically, describing a discourse referent as "partner") and an aspect of the metalinguistic discourse context that is the basis for that utterance (i.e. out of the various possible words to use, "partner" is the politically correct description being enforced by the interlocutors).

Regarding the distinction between speech-act and metalinguistic spaces with conditionals, Sweetser (1990:141) notes, "In both cases, the conditional relationship is related to the current speech act's performance, but in these metalinguistic cases, the conditionality does not relate to the force of the speech act itself." This insight equally applies to BCCs in these two

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[54] The distinction between relationships holding in different "domains" has been so universally recognized that Sanders & Spooren (2015:55) state: "The distinction between, on the one hand, coherence between events in the world—named objective, semantic, propositional, internal, or content relations—and on the other hand coherence realized by the communicative acts or reasoning of the speaker—subjective, pragmatic, external relations—can be found in virtually all taxonomies and categorizations of coherence relations." Cf. Verstraete (2007:227).

domains. Consider again (5) and (6) above. In (5), the BCC introduces the basis for the force of the speech-act itself—the invitation to the movies. Specifically, having tickets is presented as the reason for the invitation. The BCC in (6), however, does not present the basis for the force of the speech-act itself. That is, the desire to be politically correct is not the reason for informing the audience that someone is coming to dinner. Rather, the desire to be politically correct is the reason for the lexical choice in the form of the speech-act—the choice of the word "partner" over some other less politically correct term.

The distinction between these domains and the use of connectives that specialize in relating particular domains is even clearer in Dutch, as can be seen in the following examples from J. Sanders *et al*. (2012:192).[55]

(7) *Wat wil je, **want** er is koffie en thee*.
     What do you want, because there is coffee and tea. (Speech-act domain)
(8) *De buren zijn niet thuis, **want** hun licht is uit*.
     The neighbors are not at home, because their lights are out. (Epistemic domain)
(9) *Jan ging zwemmen, **omdat** het een warme dag was*.
     Jan went swimming, because it was a hot day. (Content domain)
(10) *De temperatuur steeg, **doordat** de zon scheen*.
     The temperature rose, because the sun was shining. (Content domain)

J. Sanders *et al*. (ibid) explain the distribution of these Dutch BCCs in the following way:

> Dutch DOORDAT . . . could not possibly express the connective relations in [(7)–(9)]; and if WANT . . . [was] used in example [(10)], it would sound as if the speaker was focusing not on the 'physical' causal relation between sunshine and temperature, but on causal relations under her own responsibility at a higher epistemic or argumentative level.

From these prototypical examples, we can clearly see that speakers may employ certain connectives to specialize in marking specific domains. Furthermore, while these distinctions may be more clearly seen in languages with more specialized causal connectives, even with a more generic connective such as English *because*, which can operate in all domains, there are still

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[55] Note that most of the examples I use in this chapter will be from Dutch and English because literature has illustrated the BCSN model most thoroughly using these languages. This is due, at least in part, to the fact that Dutch is especially useful for illustrating the model, since it employs connectives specialized for different causal relationships, which makes the distinctions lexically transparent. Nevertheless, the cognitive, rather than language-specific, foundation of the model commends it to cross-linguistic application. Therefore, because of this converging evidence from empirical typological study and cognitively based models, it is hypothesized that this approach possesses cross-linguistic explanatory power (cf. T. Sanders *et al*. 2009:52–53; Stukker & Sanders 2012). This will be born out in the corpus study in Part Three (especially section 8.1) where I apply the BCSN model to causal כי.

linguistic phenomena that distinguish content versus non-content usages, such as integration and main clause phenomena. These will be discussed in chapter 5. The basic distinction between content and non-content causal relationships is also supported by psycholinguistic research, which has observed that it takes longer to process non-content relations than content relations (Noordman & De Blijzer 2000).[56] Furthermore, these phenomena are observed across genetically and areally distinct languages and seem to reflect a cognitively motivated cross-linguistic tendency to employ connectives as a way of distinguishing between these different domains.[57]

However, it is clear that these domains alone do not fully account for the differences between connectives. For instance, even in languages with domain-specialized connectives, why do speakers often use the same connective for the speech-act and epistemic domains? This is answered by the next foundational concept for the BCSN model used in the present study—subjectivity. This refers to the degree to which the interpretation of an utterance must be made with reference to the speaker in the ground of conceptualization/communication. This helps explain the use of a single specialized connective for the speech-act and epistemic domains (e.g. *want*), as well as the distinction between these domains, on the one hand, and uses of connectives in the content domain (e.g. *omdat* and *doordat*), on the other.

3.3   Subjectivity

The notion of subjectivity has been variously treated in ways that are slightly different, but complimentary (see Nuyts 2014 for disambiguation). Sanders & Spooren (2015) provide a basic overview of the main approaches to subjectivity: subjectivity as speaker-relatedness (Lyons

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[56] The reason for this is, "In understanding an epistemic relation, the reader has to check the possibility of the underlying content relation in the world. Understanding an epistemic relation implies understanding the underlying content relation" (Noordman & De Blijzer 2000:37). Thus, processing non-content relations (such as an epistemic causal relation), requires more processing effort (cf. Canestrelli 2013, building on Noordman and De Blijzer, 2000 and others). Compare this to research on child language acquisition that shows that children acquire a competence in epistemic causal relations after causal relations in the content and speech-act domains (e.g. Evers-Vermeul & Sanders 2008, 2011; Spooren & Sanders 2008; and Van Veen *et al*. 2009) and that subjective causal relations are generally learned after objective ones (Zufferey *et al*. 2015 and references there). Our ability to create and construe different mental spaces in language production and processing, respectively, also fits with a neural theory of language (Feldman 2006:222–224). When the Basic Communicative Spaces Network model is presented in chapter 4, these insights will fit well with the fact that more subjective causal relations have more complex mental space networks (cf. Kleijn 2012).

[57] Most studies have focused on Dutch, French, and German. For studies focusing on Dutch, see Pander Maat & Sanders (2000), Degand & Pander Maat (2003), Stukker (2005), Stukker *et al*. (2008), Sanders & Spooren (2009b), T. Sanders *et al*. (2009), J. Sanders *et al*. (2012), and Sanders & Spooren (2015). See Günthner (1993), and Keller (1995) for German. Pander Maat & Degand (2001) offer an analysis of Dutch and French while Pit (2003) analyzes this phenomenon across Dutch, German, and French. For Chinese, see Li (2014).

1977 and Traugott 1995a), implicit presence of the speaker (Langacker 1990), and speaker-subjectivity and character-subjectivity (J. Sanders *et al*. 2012). Following Sanders & Spooren (2015), I adopt an integrative approach to subjectivity as it relates to causal connectives that draws on each of these perspectives. In the following, I begin with the work of Lyons, Traugott, and Langacker. I then discuss how their work on subjectivity is complimented by the distinction between speaker- and character-subjectivity, and the notion of a subject of consciousness developed in J. Sanders *et al*. (2012). Finally, I will present a subjectivity scale that incorporates these factors.

3.3.1   Speaker relatedness and implicit/explicit profiling

Langacker's (1990) foundational work on subjectivity is a helpful model for understanding domains according to varying degrees of subjectivity in terms of explicit mention (objective) and implicit presence (subjective). A complementary notion of subjectivity elaborated by Lyons (1977, 1995) and Traugott (1989, 1995) refers to the subjectivity of an utterance as the degree to which it must be interpreted with reference to the speaker as the conceptualizing subject. These perspectives can be illustrated with Langacker's analogy of viewers watching a play. A viewer may be so consumed with a play that self-conscious awareness all but disappears from view with the only object of attention being the play onstage. In this case, there would be a relatively maximal asymmetry between the viewing subject and the object being viewed. That is, the play on stage would be maximally profiled while the viewer would be minimally profiled. The play would be conceptualized without need for any reference to the viewer (other than the obvious fact that there is someone viewing the play).[58] This analogy can be helpfully applied in order to understand the different elements in a communicative situation. The speaker/hearer are the viewers and the content of an utterance is the play on stage being viewed. This is depicted in Figure 3.1 below, which depicts the construal of an utterance such as (10) above.

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[58] Compare Langacker's (1985:109) earlier definition of subjectivity: "Subjectivity pertains to the observer role in viewing situations where the observer/observed asymmetry is maximized."

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Figure 3.1 Construal configuration in maximally "objective" expressions[59]
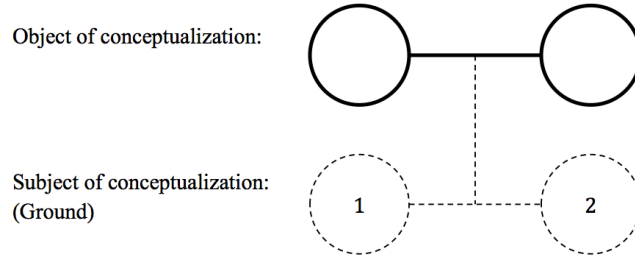
In this diagram, the speaker (1) and hearer (2) interaction (depicted by the horizontal line between 1 and 2), along with the contextual elements of the communicative situation, constitute the ground, which is subjectively conceptualized. That is, it is implicit and minimally profiled (represented by dashing). The object of conceptualization is profiled onstage (indicated in bold). Two upper circles connected by a horizontal line schematically represent the structure that conceptualizers impose upon the object of construal. It is this to which the attention of the speaker/hearer is directed. The vertical line represents the conceptualization of the interlocutors. The degree to which the utterance must be interpreted with reference to the conceptualizing ground may be more (bolded line) or less (dashed line) strongly profiled. In this case, a maximally objective utterance would only have minimal reference to the ground.

At the other end of the scale, an expression may be maximally subjective by profiling the ground with only minimally reference to an external object of conceptualization. This is the case for utterances like "Ouch!" which profile the subjective experiencer with minimal reference to anything else. This can be diagrammed as in figure 3.2 below, adapted from Verhagen (2007:62). Thus, the interlocutors (speaker/hearer) in a communicative event constitute the subjective ground, which is always present, but may be more or less profiled in an utterance, making the utterance more or less subjective.

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[59] This configuration is Verhagen's (2007:61) adaptation from Langacker (1990:17).

Figure 3.2 Construal configuration in maximally "subjective" expressions
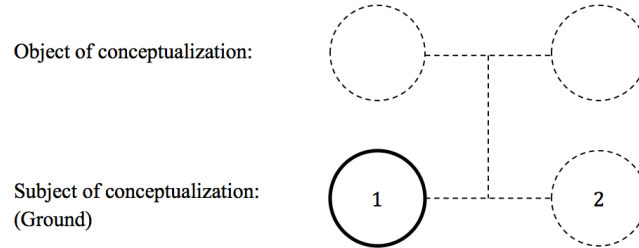
Of course, these are just examples at two ends of the spectrum. Utterances may fall along any number of points between these two extremes. The variations of possible construal configurations with varying levels of granularity and additional parameters are potentially endless, especially when considering the various possible linguistic manifestations of those configurations. This leads Verhagen (2007: 57) to conclude, "one should not expect that classification of construal operations can be set up that are exhaustive and complete." Therefore, he goes on to say that it is appropriate to "simply present the most important and well-studied types of construal operations successively" (ibid). For my purpose of adopting a model for analyzing connectives within the BCSN framework, I will focus on the construal configurations reflected in examples (7)–(10) above, which represent the basic range of relationships marked by connectives. And crucially, these different construal arrangements of objectivity/subjectivity help account for the differences between specialized causal connectives (such as Dutch *want*, *omdat*, and *doordat*) and the different uses of a single, generic connective (such as English *because*). That is, subjectivity helps explain why a specialized connective such as *want* is used in both the speech-act and epistemic domains. It also helps explain certain properties of generic connectives like English *because* that distinguish between speech-act/epistemic domain uses and content domain uses.

To see how these construal configurations relate to the uses of such connective, consider again the sentences from (7)–(10), repeated here for convenience, this time with reference to subjectivity.[60]

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[60] Note that the following examples will be discussed in terms of the construal configuration for each connective, not necessarily every element in the utterance.

(11) *Wat wil je, **want** er is koffie en thee.*
      What do you want, because there is coffee and tea.
      (Speech-act domain; BCC interpreted with reference to the ground)

(12) *De buren zijn niet thuis, **want** hun licht is uit.*
      (Surely) the neighbors are not at home, because their lights are out.
      (Epistemic domain; BCC interpreted with reference to the ground)

(13) *Jan ging zwemmen, **omdat** het een warme dag was.*
      Jan went swimming, because it was a hot day.
      (Content domain; BCC interpreted without reference to the ground)

(14) *De temperatuur steeg, **doordat** de zon scheen.*
      The temperature rose, because the sun was shining.
      (Content domain; BCC interpreted without reference to the ground)

In (11), the segment of the construal configuration marked by *want* and "because" draws a causal relationship between the speech-act interaction in the subjective ground (the speaker asking the hearer what they want to drink) and the reason for uttering the speech act in the object of conceptualization (the fact that there are multiple beverage options). This can be diagrammed as seen in Figure 3.3 below. This shows that the interpretation of the causal relationship marked by the connective requires reference to the ground, and is thus more subjective than (13)–(14), discussed below.

In (12), the causal relationship is between the speaker's epistemic stance (the neighbors are not at home), which the hearer may be invited to adopt, and the basis for that conclusion (the lights are out). In other words, the utterance must be interpreted with reference to the speaker (and possibly also hearer).[61] Crucially, the construal configuration of epistemic *want*/*because* is the same as in the speech-act domain in Figure 3.3. That is, in both cases, the connective profiles a causal relationship between the ground (the speaker as speech-act performer or epistemically positioned mind) and an object of conceptualization in the external world (the fact that there is coffee and tea, or that the lights are out). This similarity in subjective construal between the speech-act and epistemic domains explains why, even in a language that employs specialized causal conectives, the same connective is often used for both of these domains.

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[61] Note that this more subjective construal may be more overtly constrained by the optional epistemic modal "Surely." However, even without this, the most natural interpretation of the connective is epistemic, given our knowledge base of the world (i.e. that the lights being out usually doesn't cause people not to be home, but does serve as reliable grounds for concluding they are not at home).

Figure 3.3 Construal configuration of a BCC in the speech-act/epistemic domain

Object of conceptualization:

Subject of conceptualization:
(Ground)

1   2
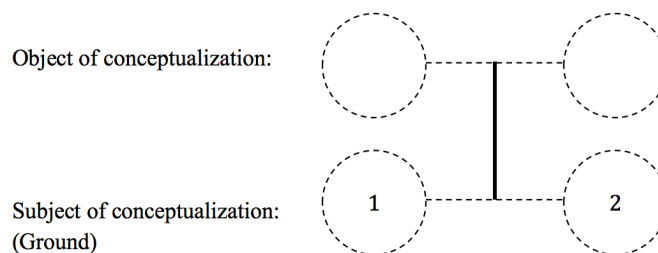
As for (13)–(14), the utterances are interpreted with minimal reference to the ground since the connective signals a relationship, not between the ground and object of conceptualization, but between two elements in the object of conceptualization in the external world. This is represented in Figure 3.4 below. Thus, the difference in construal configurations along subjective/objective lines helps explain the use of the same Dutch connective for (11)–(12), as well as difference between (11)–(12) on the one hand and (13)–(14) on the other.

Figure 3.4 Construal configuration of a BCC in the content domain

Object of conceptualization:

Subject of conceptualization:
(Ground)

1   2
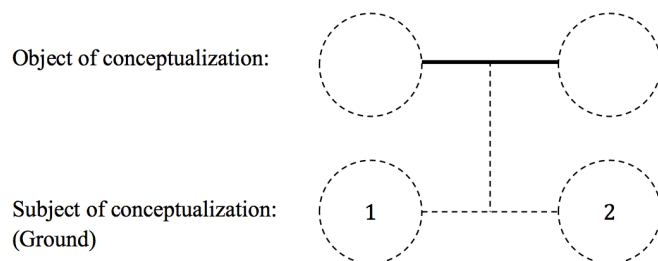
And, as noted above in section 3.2 covering domain theory, even with a more generic causal connective like *because*, there are certain syntagmatic properties that distinguish uses in the content domain, on the one hand, from uses in the speech-act and epistemic domains, on the other (e.g. phonological pause separating the causal clause from the clause to which it is related in non-content relations, as well as integration phenomena that are only compatible with content-relations). The crucial point at this stage is that subjectivity also helps explain the syntagmatic variations even of generic connectives when used in different domains. Thus, when the notion of subjectivity is combined with Domain Theory, a clearer picture emerges of the conceptual and linguistic difference between specialized connectives, as well as between the different

syntagmatic profiles a single generic connective used across domains (discussed further in chapter 5).

However, Domain Theory and subjectivity (as subjectivity has been characterized so far) do not explain the difference between examples like (13) and (14) above, which are both in the content domain, yet employ different connectives (*omdat* and *doordat*, respectively). Furthermore, while the above examples of *want* and *omdat* illustrate their prototypical uses, these connectives are sometimes interchangeable (see J. Sanders *et al.* 2012, *inter alia*). These issues are taken up in the following section which discusses the concept of a subject of consciousness and the scale of subjectivity.

3.3.2 Subject of consciousness (SoC)

According to Sanders & Spooren (2015:59), "a SoC [subject of consciousness] crucially involves an animate subject, a person, whose intentionality is conceptualized as the ultimate source of reasoning, evaluating, or acting in the 'real world.'"[62] In terms of causation, BCCs are employed to present the basis for a SoC's reasoning, evaluating, or acting.[63] Furthermore, causal relationships may lack a salient SoC altogether, include a SoC with varying distance from the speaker here-and-now, or may include the speaker here-and-now as the implicit SoC. Taking into account the presence or absence of a SoC and its relative distance from the speaker here-and-now reveals the motivation for the use of different connectives within the content domain. Consider again (13)–(14), repeated here for convenience:

(15) *Jan ging zwemmen, **omdat** het een warme dag was*.
       Jan went swimming, because it was a hot day.
(16) *De temperatuur steeg, **doordat** de zon scheen*.
       The temperature rose, because the sun was shining.

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[62] Compare Lyons (1995:337) and Traugott (1995a:31). As Pit (2006:158) explains, "the causality represented by the causal relations focuses on one crucial participant or entity. In each of the previously mentioned relations, we can point at some participant who is the point of application of the causal force represented in the second clause of the causal relation."

[63] Note that the simple presence of a subject of consciousness is not what gives a connective a more subjective construal. Rather, the subject of consciousness must be the salient participant in the causal relation whose reasoning, evaluating, or acting is justified in the causal clause. For example, in the sentence, "Jason's plate broke because it fell on the ground," Jason is not presented as a salient participant in the causal relationship. Therefore the causal relationship is more objective and in the content domain.

46

Many studies (e.g. T. Sanders *et al*. 2009; J. Sanders *et al*. 2012; Stukker *et al*. 2008, 2009;) have shown that in languages with specialized causal connectives, speakers can employ different connectives in the content domain to distinguish between the presence or absence of a SoC. This reveals the possibility for speakers to employ specialized connectives to distinguish between content volitional and content nonvolitional causal relationships—that is, connectives in the content domain with no SoC (16) and those which include a SoC, but one which is distinct from the speaker here-and-now (15).

In fact this distinction in Dutch is so strong that *doordat* cannot possibly be used in speech-act, epistemic, or content volitional domains, since these all involve a SoC in the causal relationship (J. Sanders *et al*. 2012:192). However, *omdat* and *want*, while prototypically used in the content volitional and speech-act/epistemic domains, respectively, can both be interchangeably used in content-volitional and epistemic domains (Sanders & Spooren 2013, 2015). The common element between these domains is the presence of a SoC construed as the most salient source of the causal relationship. This is essentially an application of the observations already discussed regarding the speaker, this time extended to a discourse character. This is described as the contrast between speaker-subjectivity and character-subjectivity (J. Sanders *et al*. 2012).

The distinction between speaker- and character-subjectivity also explains why a connective specializing in the content volitional domain would be used with a first person singular pronoun. Compare examples (17)–(18) (from J. Sanders *et al*. 2012:201):

(17) *Ik ging zwemmen, **omdat** het een warme dag was.*
      I went swimming, because it was a hot day.
(18) *Jan ging zwemmen, **omdat** het een warme dag was*.
      Jan went swimming, because it was a hot day.

The reason that the same connective is used in both cases, even though (17) has an explicit mention of the speaker, is because the first person singular pronoun is not a construal of the speaker as such, but a projection of the speaker onstage as a character in the object of construal. The distancing of the salient SoC from the speaker is also reinforced by the greater remoteness of the described event from the speaker's here-and-now (signaled here by the past-tense). Therefore, the causal relationship is still between two elements in the object of

conceptualization where the speaker is projected and construed as a character. This is represented in figure 3.5.

Figure 3.5 Construal configuration of a BCC in the content domain with 1sgPro

Object of conceptualization:

Subject of conceptualization:
(Ground)
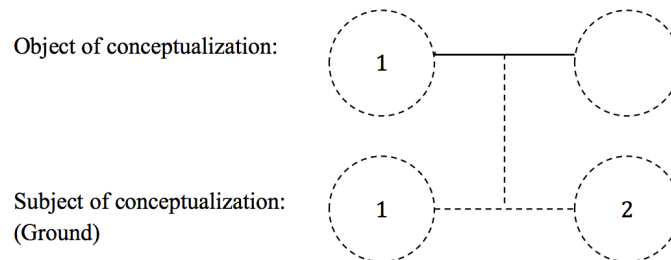
On the other hand, BCCs in the speech-act and epistemic domains such as in (11)–(12) construe the speaker here-and-now as the implicit, salient SoC, the basis of whose epistemic stance or speech-act performance is presented in the causal clause.

Thus, accounting for the proximity of a SoC to the speaker here-and-now reveals a variety of variables that contribute to the subjectivity of a connective's construal.[64] Accounting for a SoC reveals the potential conceptual bridge between the more speaker-oriented domains (e.g. speech-act, epistemic) and a more objective domain (e.g. content volitional). That is, there are varying degrees of subjectivity that extend even into the content domain. This helps explain the occasional uses in the content domain of connectives prototypically used in the speech-act and epistemic domains, and vice-versa (e.g. *want* and *omdat*).[65]

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[64] Within the epistemic domain, Pander Maat & Degand (2001) also distinguish between causality-based and non-causal epistemic relations. In their words, "In causality-based epistemic relations, the reasoning is based on an assumption concerning a real-world causal relation. Concluding q from p is based here on the belief that p generally causes q in the real world, or that knowing p will generally lead an actor to opt for a certain action" (ibid:222). Stated differently, "In causality-based epistemic relations, the real-world cause is taken as the argument supporting a conclusion concerning the real-world effect. That is, the causal relations in the real world and the epistemic domain have the same direction. In noncausal reasoning, either the real-world causality has a different direction to the epistemic one, or real-world causality is not relevant at all" (ibid:223–24). This distinction is important for distinguishing levels of subjectivity because, according to the authors, "In our view, noncausal inferences exhibit a larger degree of speaker involvement than causality-based epistemic relations." This contributes to the fuzzy boundary on a more granular level between the epistemic and content domains, rendering certain causal relations more ambiguous and therefore more difficult to differentiate. Compare this to the distinction made by Stukker *et al.* (2009:145) between deontic and epistemic modality.

[65] This will be important for understanding the distribution of causal כי's usage in chapter 8, especially the fuzzy boundary between speech-act and content-volitional uses of causal כי as discussed with example (88) in section 8.1.1 and as summarized in the overall definition of causal כי in section 8.3. Also compare example (103) in section 8.1.5 below.

3.3.3   Subjectivity scale

What emerges from these observations is a scale of subjectivity that interacts with each domain in terms of speaker- or character-subjectivity. Specialized connectives in languages appear to be employed more or less along these lines. While each particular language may "cut up" these causal relationships differently (J. Sanders *et al*. 2012:210), when they do cut them up, it seems to be consistently along one or more of these distinctions in the level subjectivity (whether speaker or character), each domain being more or less associated with a particular level of subjectivity depending on the distance of the SoC from the speaker here-and-now.[66]

The poles of this scale are, on the more objective end, the absence of a SoC as the ultimate locus of reasoning, evaluating, or acting, and on the more subjective end, the speaker being construed as the implicit SoC in the here-and-now of the utterance. Thus, a BCC is more subjective when it motivates a SoC's reasoning, evaluating, or acting and becomes progressively more subjective the closer the SoC is to the speaker here-and-now. Conversely, a BCC is more objective when the reasoning, evaluating, or acting SoC is more distant from the speaker here-and-now, and maximally objective when there is no SoC at all.[67] This is roughly presented in Figure 3.6 below.

Figure 3.6 Subjectivity scale

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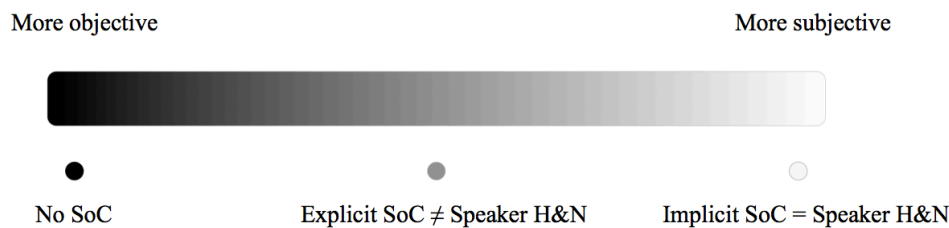
[66] The crosslinguistic observation that while languages may cut up these conceptual spaces differently, they nevertheless by and large share the same conceptual spaces (due to the shared nature of human cognitive faculties) is generalizable to all linguistic phenomena and their conceptual referents (cf. Gries & Divjak 2010:344).

[67] Compare this to Sanders and Spooren (2013:380): "In line with earlier work on causal connectives (Pander Maat & Sanders 2000), we define an utterance as subjective when its interpretation requires an active *Subject of Consciousness* from now on (SoC). That is, we consider an utterance subjective if it is tied up to a subject experiencing feeling and emotions, being an agent, taking epistemic stances, etcetera. Consequently, a SoC crucially involves an animate subject, a person, whose intentionality is conceptualized as the ultimate source of reasoning, evaluating, or acting in the 'real world.' In other words, an utterance is subjective because there is some thinking entity in the discourse who evaluates."

More subjective connectives will tend to occur in the speech-act, metalinguistic, epistemic, and perhaps content-volitional domains (which all have a SoC at varying degrees of proximity to the speaker here-and-now), while more objective BCCs will tend to occur in the content nonvolitional domain (with no SoC). It is important to note that the three points marked on the scale above represent only a very coarse-grained division of the scale. More realistically, however, the scale represents a gradient with a variety of factors that may locate a particular usage at a number of more finely grained points of greater or lesser subjectivity (cf. Kitis 2006:250). For example, one can easily think of intermediate cases between the middle and right portions of the spectrum where there is an implicit SoC (thus being more subjective than an explicit SoC), but still distinct from the speaker here-and-now, thus not maximally subjective (take, for example, utterance (17) above where the SoC is identical to the speaker, but not here-and-now).[68]

3.4   Prototype Theory

The varying degrees of subjectivity discussed above can be helpfully described in terms of prototypicality. The concept of a prototype in linguistics can be confusing since it has been used to label different phenomena. As observed by Gries (2015:473–474),

> The notion of a prototype has been defined/operationalized in different ways (see Lakoff 1987): the prototypical sense of a word may be the most frequent and/or salient and/or most concrete one, the earliest attested one (historically or acquisitionally), the one from which most others can be derived best, but these criteria need not converge.

These different definitions need not be incompatible, but can be the source of confusion when not properly distinguished. Throughout this study I will refer to the use(s) most strongly associated with a form as its prototypical use(s) (this will be discussed further in section 6.1.4). Furthermore, due to the fact that conceptual categorization is not all-or-nothing, but rather operates on "family resemblance," categories have fuzzy boundaries. That is, while a particular connective may prototypically signal a certain causal relationship, the boundaries between adjacent levels of subjectivity are fuzzy, allowing the form to extend to adjacent uses. A helpful

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[68] Pander Maat & Degand (2001) discuss this very fine-grained spectrum in terms of what they call the speaker involvement scale. Also see Pit (2006) for a discussion of very fine intermediate cases of subjectivity. A fuller matrix of factors influencing the subjectivity of a causal relationship is presented in chapter 5, which also takes into account the syntactic corollaries of subjectivity. For an overview of attempts to "operationalize" subjectivity and list contexts in which subjectification (discussed later in section 6.2) is more likely to occur, see Traugott (2010: 56–60).

illustration of this phenomenon, referred to as prototypicality effects, is given in Evans & Green (2006:168–69), and reproduced below in Figure 3.7.

Figure 3.7 Some members of the category CUP
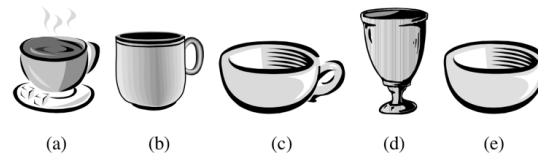
Note that while there are contexts in which each of these can be referred to as a cup (depending on how they are being used and a variety of other factors), they are not all "equal members" of the category CUP. Perhaps (b) and (c) would be referred to as a "cup" most often, while (a), (d), and (e) would occasionally be referred to as cups, but more often called a "mug," "chalice," and "bowl," respectively. If each cup in the above figure represented a particular use of כי at a certain level of subjectivity, the prototypical use(s) would be the one(s) most strongly associated with כי, while others may be recognized but less prototypical uses. The varying degree of subjectivity a causal relationship can have creates the same sort of prototypicality effects.

This can be illustrated by the results of the corpus study by Stukker *et al.* (2009:159) of forward causal connectives in Dutch, presented in Table 3.1 below.[69] The prototypical use of each connective corresponds to the most frequent use and is indicated in bold. The distribution of causal connectives reveals that they do not conform to neatly categorized uses with static and impenetrable boundaries. Rather, specialized connectives may prototypically operate within a particular domain, but will also have peripheral uses in adjacent domains. However, this does not mean that exceptions are arbitrary. Rather, these exceptions are cognitively and pragmatically motivated in relation to the prototype (cf. Stukker *et al.* 2009). Pragmatic extensions will be discussed more below in chapter 4. Indeed, this is precisely what cognitive semantics predicts. Namely, it is to be expected that linguistic forms have a more or less polysemous network of related meanings. This network has a prototypical sense, but also less prototypical meanings,

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[69] Stukker & Sanders (2012) also support the conclusion that causal connectives display prototypicality by analyzing the data from various studies of French (Pit 2003, Degand & Pander Maat 2003, and Zufferey 2012), German (Pit 2003), and Dutch (Pit 2003, Degand & Pander Maat 2003, and Sanders & Spooren 2015) corpora.

which are nevertheless cognitively motivated by their conceptual relation.[70] These radial extensions are the result of fuzzy boundaries between semantic values and emerge through the mechanism of semantic extension via metonymy, metaphor, and context induced reinterpretation (elaborated further in chapter 6).

Table 3.1 Distribution of *daardoor*, *daarom*, and *dus* over domains of use[71]

	Daardoor	Daarom	Dus	Total
Content nonvolitional	**96**	29	0	125
Content volitional	4	**91**	68	163
Epistemic	0	56	**263**	292
Total	100	176	304	580

For causal connectives, this is due to the fact that fine-grained and sometimes difficult-to-perceive distinctions in the level of subjectivity result in overlapping uses in domains adjacent to the prototype. Note from Table 3.1 above that this is precisely the pattern that emerges. *Daardoor* is prototypically in the content-nonvolitional domain but the distinction between that and the content volitional domain is not always as clear. That is why it occurs sometimes (though non-prototypically) in the latter. However, it never occurs in the epistemic domain. The convers is true of *dus*. *Daarom* can be used in all three, but is prototypically used in the content-volitional domain. These variations in use can be explained by the fact that a causal relation may fall along a variety of points on the subjectivity scale and the boundary between levels of subjectivity is not black and white, but forms a gradient.

One important instance of such an intermediate case would be the use of free indirect speech.[72] This is defined as cases where the speaker/narrator functions as the deictic center, but the perspective is that of the character (Verhagen 2005:130).[73] In other words, the speaker and

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[70] It is important at this point to note that I am here discussing the prototypicality of causal senses, not non-causal senses that are often included in the semantic potential of causal connectives. For example, English *since*, like כי, has both temporal and causal uses.

[71] Stukker *et al*. (2009:119) present the following as prototypical uses of these forward causal connectives:
  (1) *Het was extreem koud. **Daardoor** waren de waterleidingen gesprongen*.
    "It was extremely cold. **Daardoor** the water pipes had burst."
  (2) *Het was extreem koud. **Daarom** zochten we een café op.*
    "It was extremely cold. **Daarom** we entered a cafe."
  (3) *Het is onbewolkt. **Dus** het zal wel koud worden vandaag.*
    "The sky is clear. **Dus** it will probably be cold today."

[72] This is also referred to as free indirect discourse, or free indirect thought.

[73] There can also be ambiguous uses of free indirect speech, which also display prototypicality effects (Ikeo 2007). See Vandelanotte (2004) who presents various markers of free indirect speech.

52

character perspectives are "blended" together. That is, the speaker views the character's perspective from the inside, seeing through the character's eyes as it were. An example of this is the following, adapted from Sanders & Spooren (2015:61).

(19) That Saturday morning, Willem was sad. Now all soccer games would be cancelled, because it had rained a lot that week(, he thought).

While this narrative segment begins in the past, the second sentence brings the reader into the here-and-now of the character Willem (explicitly signaled by the adverbial "Now" and the use of "would" indicating future in the past) and provides an internal view of his conclusion that all soccer games would be cancelled. Thus, while the character is the SoC, the deictic center is moved more closely to the here-and-now (and can even be identical to it) in distinction from prototypical causal relations with a third person singular SoC where the causal relationship is located more remotely from the speaker in the content domain.

Particles and discourse markers are one of the tools commonly employed in free indirect speech (Eckardt 2014:114–148; cf. Gallai 2016) to mark, navigate, and blend perspectives. This blending phenomenon and its relation to causal connectives is seen even more clearly in Dutch where there is a choice between specialized connectives. Consider the following example from J. Sanders *et al*. (2012:203).

(20) *Jan zag dat de buren niet thuis waren, **want** hun licht was uit*.
      "Jan saw that the neighbors were not at home, WANT their lights were out."

Here, the more subjective *want* is used with a third person singular SoC in the content domain, which prototypically occurs with a first person singular SoC in the epistemic or speech-act domains. Again, this is explained by the fact that, with free indirect speech, the perspective of the speaker and character as SoC are blended, thus making it compatible with a more subjective connective.

Cases such as these lead me to the final foundation concept for the BCSN model—Mental Space Theory (MST). MST provides helpful conventions for accounting for these blends between speaker and character in a way that also incorporates the insights provided by domain theory and subjectivity discussed above.

53

3.5 Mental Space Theory

MST is a powerful linguistic model pioneered by Fauconnier (1985, 1994, 1997, *inter alia*). MST allows linguists and cognitive scientists to describe and explain the connection between cognitive structure and linguistic structure for an impressively large variety of phenomena. For the purposes of this study, I will focus on the aspects of MST that are particularly helpful for analyzing the difference between causal connectives. T. Sanders *et al*. (2009: especially 22–26) note the appropriateness of applying MST to causal connectives for three main reasons. First, MST offers a cognitively plausible account of such connectives. That is, linguistic and psycholinguistic approaches to connectives, as well as studies on the processing effects of connectives in discourse, show that they function to create coherence in a discourse by instructing interlocutors to relate connected segments in certain ways. This is highly compatible with an MST approach, which analyzes the construction and navigation of mental spaces in discourse. Second, MST has been successfully applied to linguistic phenomena similar to causal connectives, such as conditionals (e.g Dancygier & Sweetser 2005; Bivin 2016) and various other connectives (Verhagen 2005). Third, as mentioned above, MST augments Domain theory and subjectivity (especially in handling free indirect speech) and provides the framework for researchers to integrate them into a unified model. That is, domains can be construed as particular types of more or less subjective mental spaces available in each communicative situation. Causal connectives are then understood as part of the instructions for building certain mental space configurations. To that end, I will now give a brief overview of MST.

3.5.1 Overview

The basic insight of MST is that in the production of discourse, speakers are constantly creating and relating different mental spaces and that the differences in mental space configurations account for the differences (and ambiguities) in linguistic structure. The basic components of this network include a base space (B), which is the conceptual starting point of any discourse and is pre-filled with the discourse context and background knowledge of the speaker. From this space, new child spaces (M) are constructed. Furthermore, in the unfolding discourse, speakers may move up and down this network and focus (F) on certain spaces. The space in focus is the space that is currently receiving additional structure (being modified). This structuring is done from the viewpoint of either the current focus space, or another space in the

network. So for instance, the base space may at the same time be in focus and be the viewpoint from which it is being modified in the unfolding discourse. The space that serves as the viewpoint in a mental space configuration is also referred to as the space from which the focus space is "accessed" (Sweetser & Fauconnier 1996:13). Furthermore, this space building is often recursive so that the base space can have multiple child spaces, and each child space can also be parent to yet other spaces.

To illustrate the basic components of this model, consider the following example from Sweetser & Fauconnier (1996:13). Imagine that two speakers are discussing a particular woman with green eyes and one of them utters the following sentence.

(21)   Max believes the woman with green eyes has blue eyes.

Here, the base space (B) includes the mental representation of a woman with the property of having green eyes. In the utterance, the word "believes" is a space builder that instructs the hearer to build a child space (M) containing Max's belief about the color of the woman's eyes. The dashed line connecting (a) and (a') represents the identity of the woman in both spaces, though with different characteristics in B and M. Since M is the space being modified (i.e. it is being filled with the content that the woman has blue eyes), it is in focus. However, M is being accessed via B. This is made clear from the fact that the woman is referred to as "the woman with green eyes." This mental space configuration is presented in Figure 3.8 below, adapted from Sweetser & Fauconnier (1996:14).

Figure 3.8 Basic components of a mental space network

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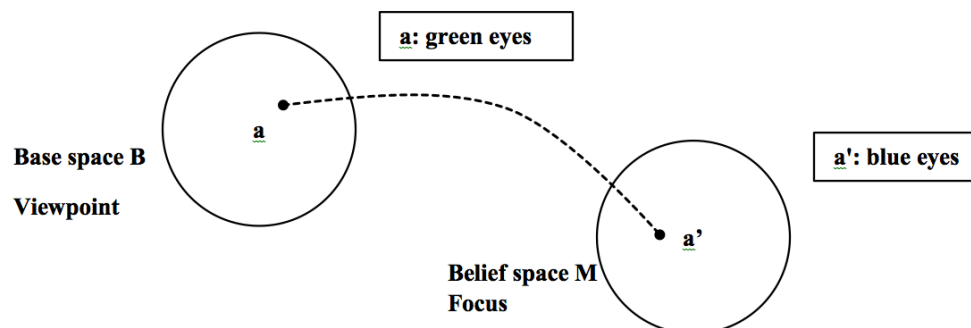
Notice that the viewpoint can also shift from B to M, for example, if the following utterance were added to the mini-discourse above.

(22) Max thinks he is going to marry the woman with blue eyes.

In (22), viewpoint is moved to M. Referring to the woman "with blue eyes" signals this shift, since that is only true in Max's belief space, not in the speaker's base space. This shows that Max's thought about marrying the woman is being perceived through his eyes, so to speak. Alternatively, this same utterance can be viewed from B as in the following:

(23) Max thinks he is going to marry the woman with green eyes.

This shows how MST can adequately represent and explain instances of space blending where the speaker takes on (without necessarily committing to) the perspective of a character in the discourse.

MST also helps explain ambiguities by showing that a single utterance may be compatible with several mental space configurations. Consider the following utterance from Sweetser & Fauconnier (1996:15).

(24) In the picture, the woman with green eyes has blue eyes.

It is ambiguous whether the woman actually has green eyes but in the picture they are blue, or really has blue eyes but in the picture they are green. This ambiguity is due to the fact that it is unclear which space is serving as the viewpoint or access point for the picture space. If the viewpoint is the base space, then the woman actually has green eyes, but they are blue in the picture. If the viewpoint is the "picture" space, then the woman really has blue eyes, but they are green in the picture. As Sweetser & Fauconnier (1996:17) note, to interpret such utterances, "one must chose among several connecting paths, based on current configurations, background knowledge, and target inferences." For example, the access point of the picture space would be obvious if the speakers were standing in front of the painting. Such ambiguities in mental space configurations will factor significantly into the prototypicality structure of causal כי discussed in chapter 8.

56

3.5.2   Mental spaces and causal connectives

In order to show the implications of this for connectives, consider the mental space configuration of the causal connective in example (20) above, repeated here for convenience.

(25)   *Jan zag dat de buren niet thuis waren,* **want** *hun licht was uit.*
        "Jan saw that the neighbors were not at home, WANT their lights were out."

Recall that the use of *want* here is somewhat unexpected since it prototypically occurs with a SoC identical to the speaker here-and-now, while in this utterance it occurs with a third person singular SoC that is temporally distant from the speaker here-and-now. This was presented as an instance of free indirect speech. This can now be easily accounted for with MST when we realize that this is a case of viewpoint shift in which the character's mental space is accessed directly, rather than through the narrator's base space. That is why the more subjective *want* (which prototypically occurs in the speech-act and epistemic domains) can be used here—because the utterance is not merely a description of a character's belief in the content space, but is actually viewed from within the character's epistemic space and is thus compatible with such a specialized connective. This can be diagrammed as in Figure 3.9 below.

The notation $p > q$ refers to the causal relationship of p as the cause or basis of q. In this case, Jan's epistemic conclusion q is based on his observation p. In (25), "Jan saw" sets up an epistemic space M in which Jan's reasoning is structured. It is precisely because Jan's epistemic reasoning is being accessed directly from M that *want* is used. If the viewpoint were from the speaker's base space (i.e. if Jan's epistemic space were being accessed through the B), *omdat* would be prototypically used in order to signal a causal relationship in the content-volitional domain removed from the speaker here-and-now. But because in free indirect speech the speaker continues to function as the deictic center while the viewpoint is that of the character, *want* is used to signal a mental space configuration that perceives Jan's reasoning process internally. One of the main functions of causal connectives is precisely this—to aid in the construction of and navigation through mental space networks in unfolding discourse (Sweetser & Fauconnier 1996:12–13). And, as discussed above, connectives can perform this function by providing instructions for the construction of particular mental space configurations that differ according to domains of use and subjectivity.

57

Figure 3.9 Mental space configuration of free indirect speech
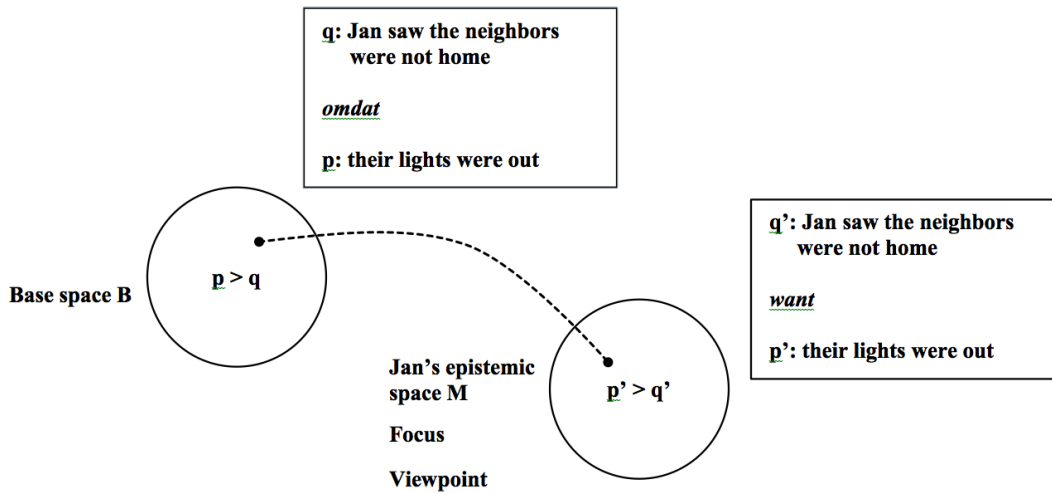
Finally, MST offers a helpful framework for integrating all of the above components into one model. That is, domains of use can be understood as communicative spaces available for use in every discourse situation. These communicative spaces can then be mapped onto a communicative spaces network that distinguishes between more and less subjective spaces depending on the presence/absence, implicit/explicit mention, and speaker proximity of a SoC, as well as the possibility of blending character and speaker mental spaces. Connectives can then be analyzed and categorized in terms of the sort of communicative space configurations they prototypically produce. In the next section, I discuss the precise way all of these components can be integrated into a unified model called the Basic Communicative Spaces Network (BCSN).

3.6   Chapter Summary

In this chapter I have described the foundational principles of the theoretical model that is used in the present study. I began with the notion that discourse is composed of a series of utterances. These utterances form a coherent discourse by virtue of the relationships that exist between them, which are marked by various linguistic features. Connectives are one such means of creating these coherence relationships between text segments. However, despite their common function of marking a causal relationship, specialized causal connectives (and the use of generic connectives across domains) exhibit systematically different usages and communicate different types of causal relationships. Sweetser's theory of domains (speech-act, epistemic, content, and metalinguistic) has been helpful in categorizing these different uses. In other words, certain

58

connectives were found to have a preference for particular domains of use. However, there was also overlap. Connectives that occur in the speech-act domain also tend to occur in the epistemic domain, and at times, even in the content domain. The concept of subjectivity defined as the presence of a SoC and its distance from the speaker here-and-now helped explain the distribution of connectives across several domains. Specifically, it has become clear that the domains fall along a subjectivity scale. This accords with prototypicality effects, which display principled overlap between uses in adjacent domains. However, domains and subjectivity did not explain the whole picture, since there are cases of subjective connectives being used in contexts removed from the speaker here-and-now where less subjective connectives are prototypically used—e.g. cases of free indirect speech. In these cases, MST provided a framework for understanding these as instances of blending speaker and character perspectives, thus licensing the use of a connective normally only appropriate when the SoC is identical to the speaker.

Thus, from these components, an explanatorily powerful and conceptually coherent account of causal connectives begins to emerge. The only thing left to do is to integrate them into a unified model, which MST nicely facilitates. Following T. Sanders *et al*. (2009) and J. Sanders *et al*. (2012), I will next present what the integration of these concepts into the Basic Communicative Spaces Network looks like.

4 The semantics and pragmatics of causal connectives

> *"Language users often systematically prefer one lexical item rather than another (even highly similar) one to express a certain type of causal relationship. Such choices could provide a window on speakers' cognitive categorizations of causality."*   Sanders & Sweetser (2009:1)

4.1 Introduction

Building on the foundational concepts presented in chapter 3, the BCSN represents a unified model that incorporates the necessary linguistic observations (especially domains of use and subjectivity) and employs sufficiently transparent representations in order to provide a fuller, explanation of the meaning and distribution of both specialized and generic adverbial connectives, such as כי. In the present chapter I will first introduce the notational conventions of BCSN representations and discuss prototypical BCSN configurations of causal connectives functioning in each of the domains of use. I will then discuss "exceptional" uses as cognitively-functionally motivated pragmatic extensions that leverage elements of prototypical usage. These pragmatic uses include BCSN configurations that result from blending spaces, as in free indirect speech. These categories will serve as the point of departure for categorizing the semantic potential of causal כי in the Hebrew Bible in Part Three, especially section 8.1.

4.2 Overview of the BCSN and Notational Conventions

As discussed above, the BCSN posits the presence of four basic communicative spaces that come "for free" in every communicative situation. That is, while various mental spaces (e.g. spatial, temporal, etc.) may be set up, filled, and configured in relation to others in unfolding discourse, the speech-act, epistemic, content, and metalinguistic spaces may be readily evoked without being explicitly set up (T. Sanders *et al*. 2009:25–26). That is, every communicative event, by default, presumes the presence of the speaker as the deictic center of communication who operates on background encyclopedic knowledge of the world, the speech-act event (e.g. describing, commanding, etc. in the speech-act space), objects of construal concerning which the speech-act is uttered (content space), the speaker's epistemic stance regarding the content being communicated (epistemic space), and the linguistic forms of the communication (meta-linguistic space).

60

The idea of these domains coming for "free" is similar to the notion of frames in cognitive semantics (Croft & Cruse 2004:7–39; Evans & Green 2006:222–229). To use a popular example of frame semantics, the RESTAURANT frame (with the background knowledge of waiters, entrées, tips, cooks, tables, etc.) may be evoked without explicitly introducing them by simply saying something like, "I'm going out to eat." Likewise, the mental spaces of the BCSN are ready to be evoked and filled simply because of the reality of the speech-event itself. Simply put, "A *Basic Communicative Spaces Network*, then, is in essence a specification in mental space terms of the minimum basic structures involved in a speech-interaction ground" (T. Sanders *et al*. 2009:26). It is in one or more of these domains that a causal connective may operate. And again, languages may signal these relationships with an entire repertoire of connectives that aid the hearer in constructing the appropriate mental-space configuration in order to properly interpret the causal relationship.

Furthermore, recalling again the discussion of domains and subjectivity in chapter 3, these are directly correlated (cf. Evers-Vermeul *et al*. 2011). It was observed that the speech-act, epistemic, and metalinguistic domains were associated with more subjective construals while the content nonvolitional domain was associated with more objective construals. The content-volitional domain was described as an intermediate case which had a level of subjectivity due to the presence of a SoC, but less so than the speech-act and epistemic domains due to the fact that the SoC is explicitly profiled and therefore distinct from (even if coreferential with) the speaker here-and-now. Accordingly, we may propose the following order of domains of use from more objective to more subjective (cf. Pander Maat & Degand 2001; Sanders & Spooren 2015:68):

content non-volitional > content volitional > epistemic / speech act / metalinguistic[74]

The notational conventions of the BCSN that incorporate all these elements are presented in Figure 4.1 below (adapted from T. Sanders *et al*. 2009:29). This initial figure does not present all the possible configurations of a BCSN, but only provides a schematic illustration of its main components. The horizontal dashed line between upper and lower levels represents the distinction between the conceptual and linguistic levels of the speech-interaction. The top level

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[74] This scale of subjectivity will be revisited in section 6.2 where I discuss the development of causal connectives under the pressure of subjectification, which further explains how a single connective like כי may be used in multiple domains with varying degrees of prototypicality.

presents the literal utterance (e.g. Q "because" P) along with the mental space configuration (the BCSN) prompted by it. The lower conceptual level represents the speaker's encyclopedic knowledge base containing propositions p and q (corresponding to P and Q in the utterance), from which the causal relationship between them may be licensed (indicated by a solid line).

For instance, does the neighbor's lights being out provide reasonable grounds for thinking they are not home? Is the presence of coffee and tea an adequate motivation for asking someone which one they would like to drink? Is the sun shining a realistic cause of a rise in temperature? This is especially apparent in an utterance such as the following.

(26)   She is pregnant, because she didn't drink a single glass of wine. (Kitis 2006: 596)

Shared encyclopedic knowledge, among other features of the statement and context, prevents us from construing the above statement to mean that not drinking wine results in women becoming pregnant. However, not drinking wine (when one would otherwise be expected to) may be adequate grounds for drawing the epistemic conclusion that a woman is pregnant. "In short, the Knowledge Base contains the adult language user's representation of encyclopedic knowledge, pragmatic knowledge and human reasoning, as well as the lexicon of the language that is used to express causal relations" (T. Sanders *et al.* 2009:28).[75] This knowledge base also includes the base space (recall the discussion in section 3.5 above). From this knowledge base, causal relationships between clauses may hold within one of the four readily available domains of the BCSN: speech act, epistemic, content (volitional/nonvolitional), or metalinguistic.

It should also be noted that in Figure 4.1 the metalinguistic space is not explicitly presented. This is only due to space limitations. A prototypical metalinguistic configuration of the BCSN will be presented below in section 4.6. Additionally, it should be noted that the speech-act space always contains linguistic content. This is because every utterance involves a speech-act (even if only an informative speech-act), though not every causal relationship holds in the speech act domain. From the speech-act space other spaces are built (indicated by an arrow). Objects of construal in the external world are projected into the content domain and epistemic stances are projected into the epistemic domain. When new spaces are built from the speech-act

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[75] Compare the proposal made by Li (2014:157–160) who argues that the lexicon of causal connectives and genre knowledge together constrain the interpretation of a causal relation.

space, the P and Q clauses are connected to their counterparts (e.g. P' and Q') in the other space by a dotted line.

Figure 4.1 Components of the Basic Communicative Spaces Network[76]
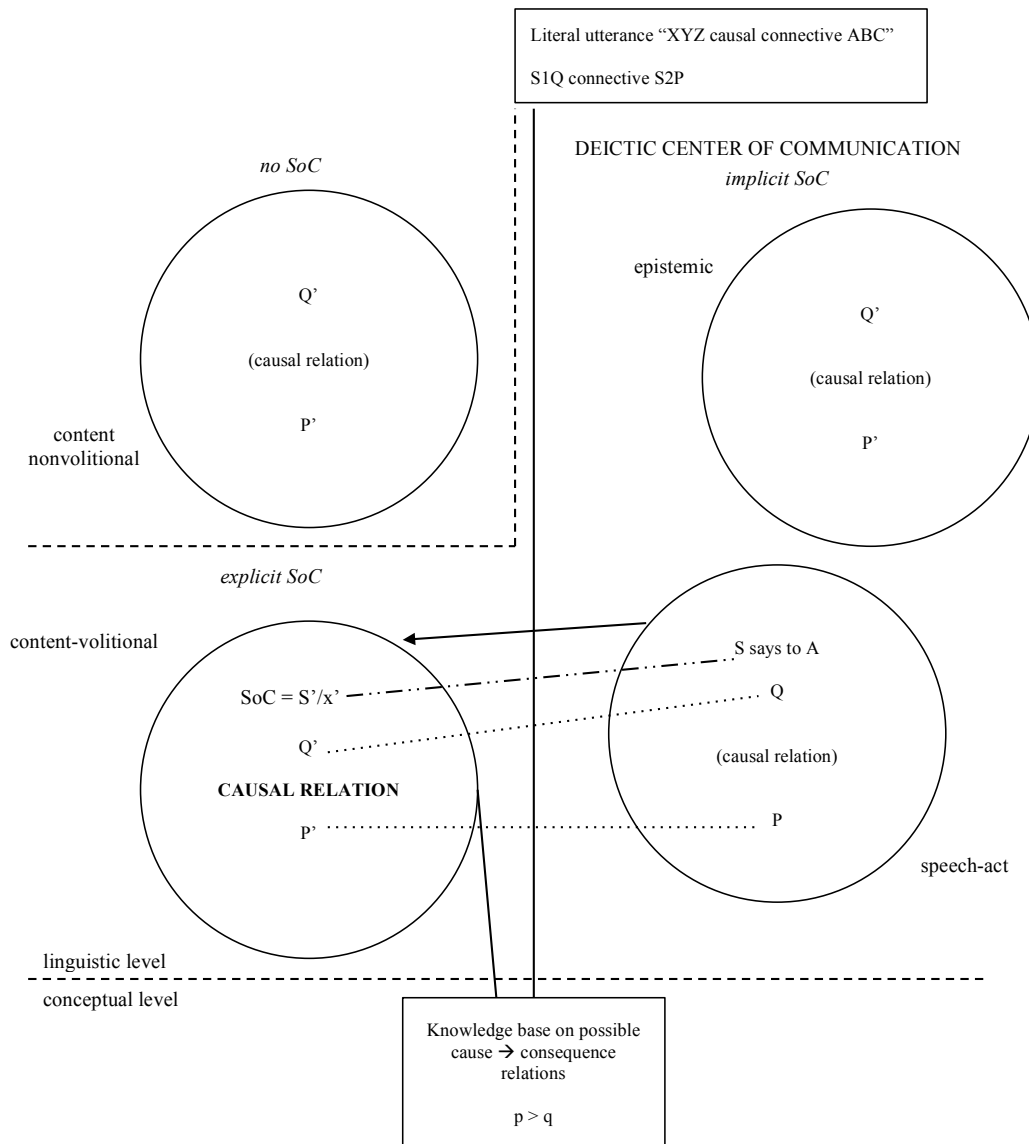
Each of the following BCSN representations will feature the most important spaces that help distinguish the conceptual difference between connectives, the most crucial being the space in which the causal relationship holds. The connective being analyzed in a given utterance will appear in bold in the space in which the causal relationship holds. That is, as was described in the

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[76] Adapted from J. Sanders *et al.* (2012:197).

MST overview in section 3.5, this is the space receiving additional structure/modification by the causal clause (i.e. the focus space). This is also the space connected to the knowledge base, which licenses the recognition or inference of the causal relationship.

The vertical line separates the BCSN into the right side, which has an implicit SoC corresponding to the deictic center of communication, and the left side, which contains the content domains, with either an explicitly/objectively profiled SoC in the volitional space, or no SoC in the nonvolitional space (marked off with a dashed "fence"). If an utterance has an explicit SoC projected in multiple spaces, a dashed/dotted line will mark the correspondence between the SoC in each space. For example, the utterance "Jan went swimming because it was hot" in the speech-act space would project Jan as the SoC into the content-volitional space where the causal relationship holds. I will describe the configurations of the four spaces of the BCSN— speech-act, epistemic, content (volitional/nonvolitional), and metalinguistic—that will serve as the foundation for subsequent discussion of blending spaces and pragmatic extensions.

4.3   Speech-act BCSN

The speech-act space is filled by the utterance of the speaker. And, while every utterance has content in the speech-act space, the speech-act BCSN configuration we are concerned with is one in which a causal relationship is modifying the speech-act space. Take for example the utterance below, also used in (7) and (11) above.

(27)   *Wat wil je, **want** er is koffie en thee*.
       Q (What do you want,) WANT P (there is coffee and tea.)

The BCSN of the causal relationship in this utterance is given in Figure 4.2 below. In the speech-act space, the locutionary utterance (Q and P) is distinguished from the illocutionary speech-act and the causal relationship between it and its motivation (I ask you (A) Q' WANT P'). However, the correspondence between the utterance (Q and P) and its illocutionary force (I ask you (A) Q' WANT P') is signaled by the dotted lines. In other words, the locutionary clauses Q and P have the illocutionary force of (I ask you (A)) Q' WANT P'. The crucial point is that this causal relationship holds in the speech-act domain where there the speaker serves as the implicit SoC and the deictic center in the ground of communication. That is, the SoC is identical to the speaker here and now. Thus, the causal relationship is not between two states of affairs in the external world (i.e. the content domain), but rather presents the motivation of the speaker's

64

speech-act in the subjectively construed, implicit ground of communication, with the speaker envisioned as the source of thinking and acting. More simply put, the causal clause presents the motivation for the speech-act.

The line connecting the knowledge base to the speech-act space represents the fact that the speaker's encyclopedic knowledge licenses the causal relationship between propositions p and q. That is, the presence of multiple beverage choices is generally considered appropriate grounds for asking which one is preferred.

Figure 4.2 Prototypical speech-act BCSN configuration[77]
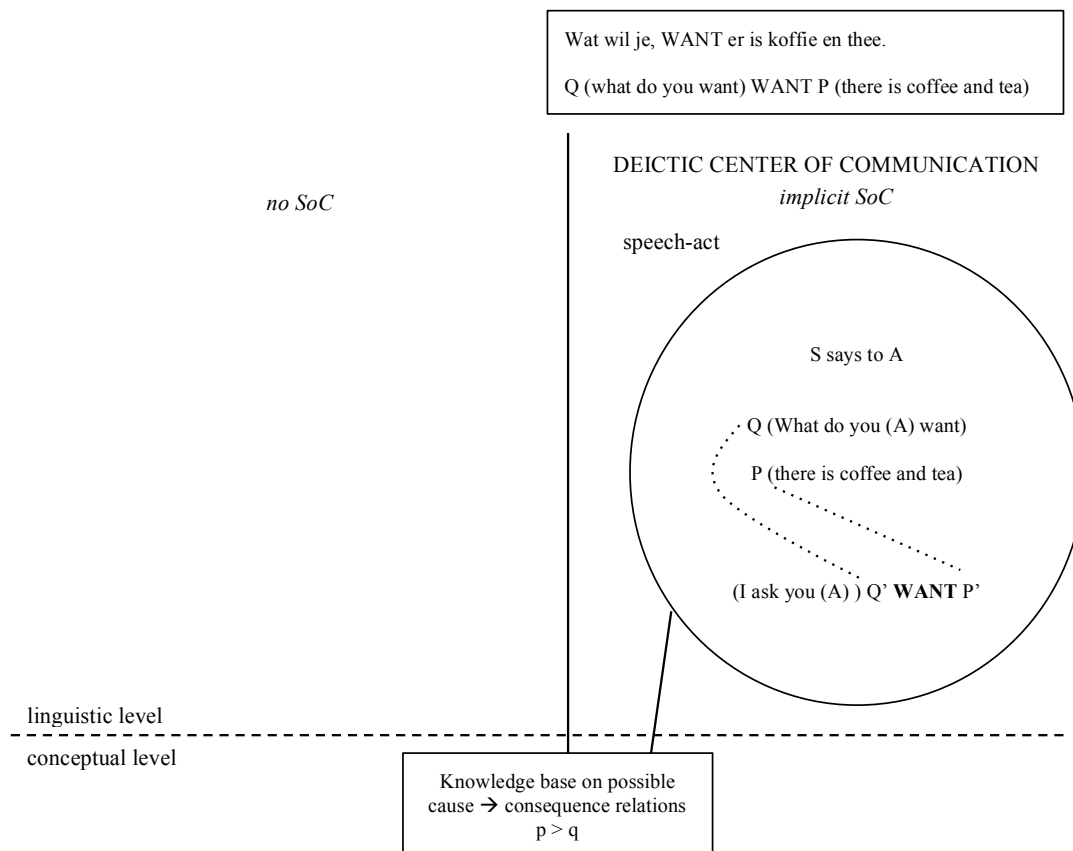
Language users may use a specialized connective to more precisely constrain this BCSN configuration (e.g. Dutch *want*, English *'cause*) or may allow a more generic connective to be used in these contexts (e.g. English *because*). However, because of the fact that both the speech-act and epistemic domains occupy the same side of the BCSN and prototypically have an

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[77] Taken from J. Sanders *et al*. (2012:199).

implicit SoC that is identical to the speaker here-and-now, the same connective is often compatible with both spaces and BCSN configurations.

4.4   Epistemic BCSN

Prototypically, the epistemic domain is where the subjective beliefs and judgments of the speaker, as the implicit SoC, are projected. The epistemic domain is modified by a connective when the motivation for the epistemic content is given in the causal clause. The utterances in (28) are examples of a connective in a prototypical epistemic relation, used in (8) and (12) above.

(28)   a. *De buren zijn niet thuis, **want** hun licht is uit*.
      Q (The neighbors are not at home,) WANT P (their lights are out.)
    b. The neighbors are home, because I can see their lights on.
    c. The neighbors are home again, because their lights are on.

The BCSN configuration of the causal relation in (28a) is given below in Figure 4.3. Here, the epistemic conclusion "the neighbors are not at home" is motivated by the observation that "their lights are out." That is, the lights being out is judged to be a sufficient basis for the conclusion that the neighbors are not home. Thus, there is an implicit SoC subjectively construed and identical to the speaker here-and-now whose reasoning (Q) is motivated by the state of affairs (P) which is presented as evidence. It is this causal relationship in the BCSN configuration that is signaled by the specialized connective *WANT*. Instances where this sort of subjective connective is used with a third person SoC will be discussed below where blended spaces are considered.

It is also important to recognize two types of epistemic reasoning in this sort of causal relationship that affects how a particular epistemic causal relation may be construed. Following Evers-Vermuel (2005), I will call these abductive versus non-abductive relations.[78] This distinction can be seen in parts (28b-c), adapted from Evers-Vermuel (2005:18). Our knowledge base of possible causal relations constrains us to interpret the causal clause in (28b) as the reason given for the epistemic stance taken in the main clause (i.e. "(I know) the neighbors are home, because I can see their lights on"). However, apart from a larger context, (28c) is ambiguous. On the one hand, as with (28a), the causal clause may be presenting the justification for the main clause as an epistemic stance. This would be paraphrased as "I know the neighbors are home

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[78] Abductive reasoning is commonly referred to as making an inference to the best explanation. In terms of epistemic causal relations, the main clause is put forth as the best explanation inferred from the causal clause.

66

again, because there lights are on." On the other hand, it could also be interpreted as a content domain relation between the neighbor's volitional action and their reason for performing it (i.e. the neighbors decided to return home to turn off their lights because they accidently left them on). The reason for this ambiguity is that, in (28c), our background knowledge of possible causal relations licenses the causal clause to serve as a real-world cause/third-person volitional motivation (non-abduction) or epistemic justification (abduction) for the content in the main clause. The relevant point is that our knowledge base generally constrains us to construe abductive relations in the epistemic domain. However, non-abductive epistemic relations may be ambiguous between epistemic and content domain interpretations.[79]

Pander Maat & Degand (2001:221–225) also observe that causality-based (i.e. non-abductive) epistemic relations are less subjective (i.e. have less speaker involvement) than noncausal (i.e. abductive) epistemic relations. They summarize, "In causality-based [i.e. non-abductive] epistemic relations, a segment describing a real-world cause constitutes a reason for drawing a certain conclusion regarding its (real-world) consequence" (ibid:221). An example they give is, "The snow is melting. The temperature must be above zero" (ibid:224). This type of epistemic causal relation also follows the iconicity of real-world causality (i.e. above-zero temperature causes snow to melt). Alternatively, "In noncausal [i.e. abductive] reasoning, either the real-world causality has a different direction to the epistemic one, or real-world causality is not relevant at all" (ibid). An example of this is "It's 10 o'clock. Everyone has probably left for work" (ibid). Therefore, this difference in subjectivity may contribute to the fuzzy boundary between the use of more or less subjective connectives, resulting in prototypicality effects and overlapping function. Indeed, this may help explain the overlapping distribution of different causal connectives. Evers-Vermeul (2005:19) points out: "For example, it is known from the literature (cf. Degand 1996; Pit 2003) that *omdat* can only mark non-abductive epistemic relations, whereas *want* can mark both abductive and non-abductive epistemic relations." It should also be noted that, while it seems strange to think of the speech-act domain in terms of abduction, Evers-Vermeul (2005:18–19) rightly points out that certain speech-act domain usages may also have possible content domain readings for similar reasons.[80]

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[79] This distinction will be important in the discussion of epistemic causal כי in section 8.1.3 below, and how it relates to content-causal כי and may have even developed from it, as summarized in section 8.3.

[80] This will be important for the discussion of speech-act causal כי in section 8.1.1 where I discuss its fuzzy boundaries with content causal כי, summarized in section 8.3.

Figure 4.3 Prototypical epistemic BCSN configuration[81]
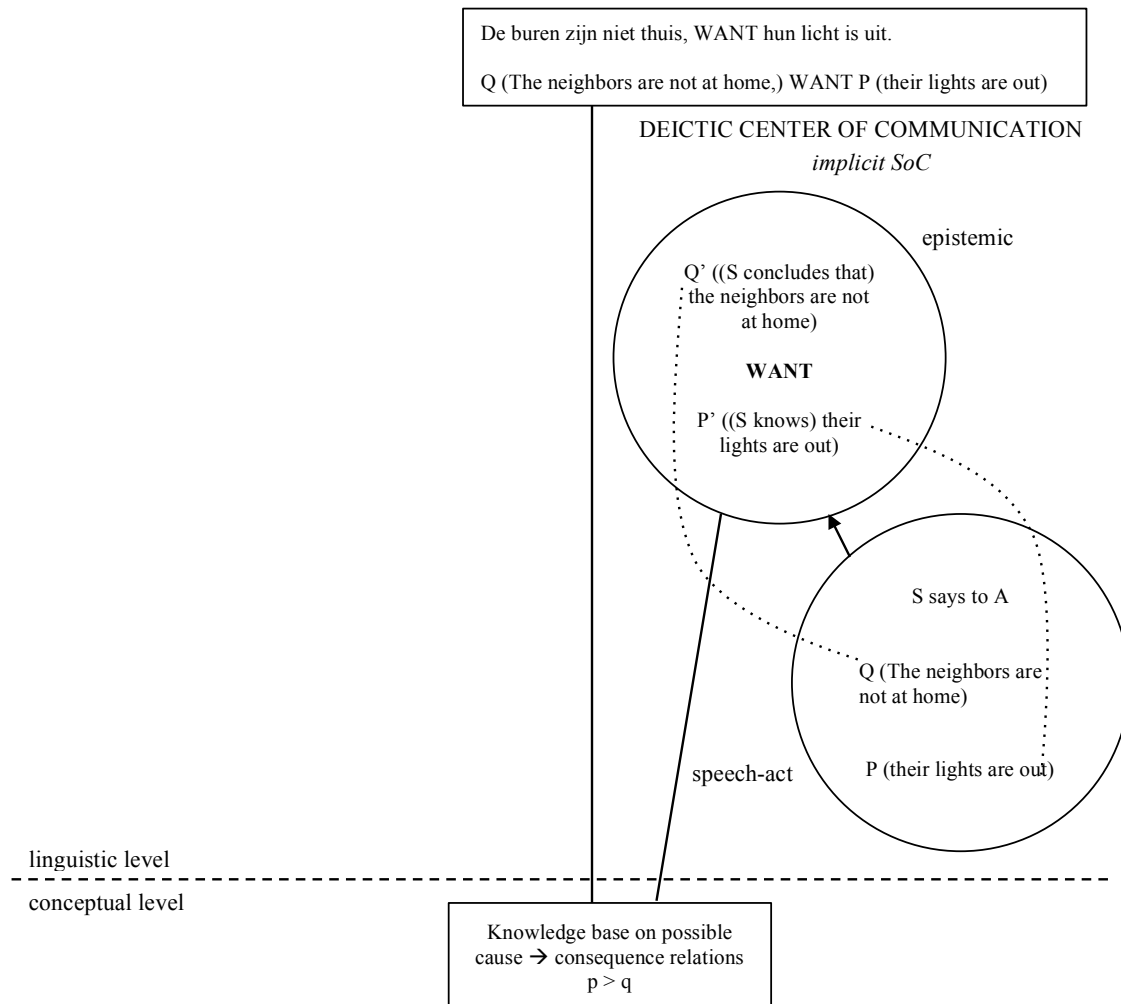
4.5   Content BCSNs

To briefly review, the content space in the BCSN is where objects of construal are projected, "on stage" as it were. These objects of construal are explicitly profiled in the speaker's utterance in the speech-act space. Furthermore, connectives may be employed to causally relate clauses expressing states of affairs in the external world (i.e. the content domain). However, there may be more or less subjective causal relationships in the content domain depending on the presence or absence of a SoC. This is a conceptual distinction that has linguistic manifestation,

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[81] Taken from J. Sanders *et al*. (2012:200).

most clearly seen in languages that employ causal connectives specialized in prompting these distinctions.

4.5.1 Content nonvolitional

A prototypical content nonvolitional BCSN configuration can be diagrammed as in Figure 4.4 below (from J. Sanders *et al*. 2012:208) illustrated with example (29) below.

Figure 4.4 Prototypical content nonvolitional BCSN configuration
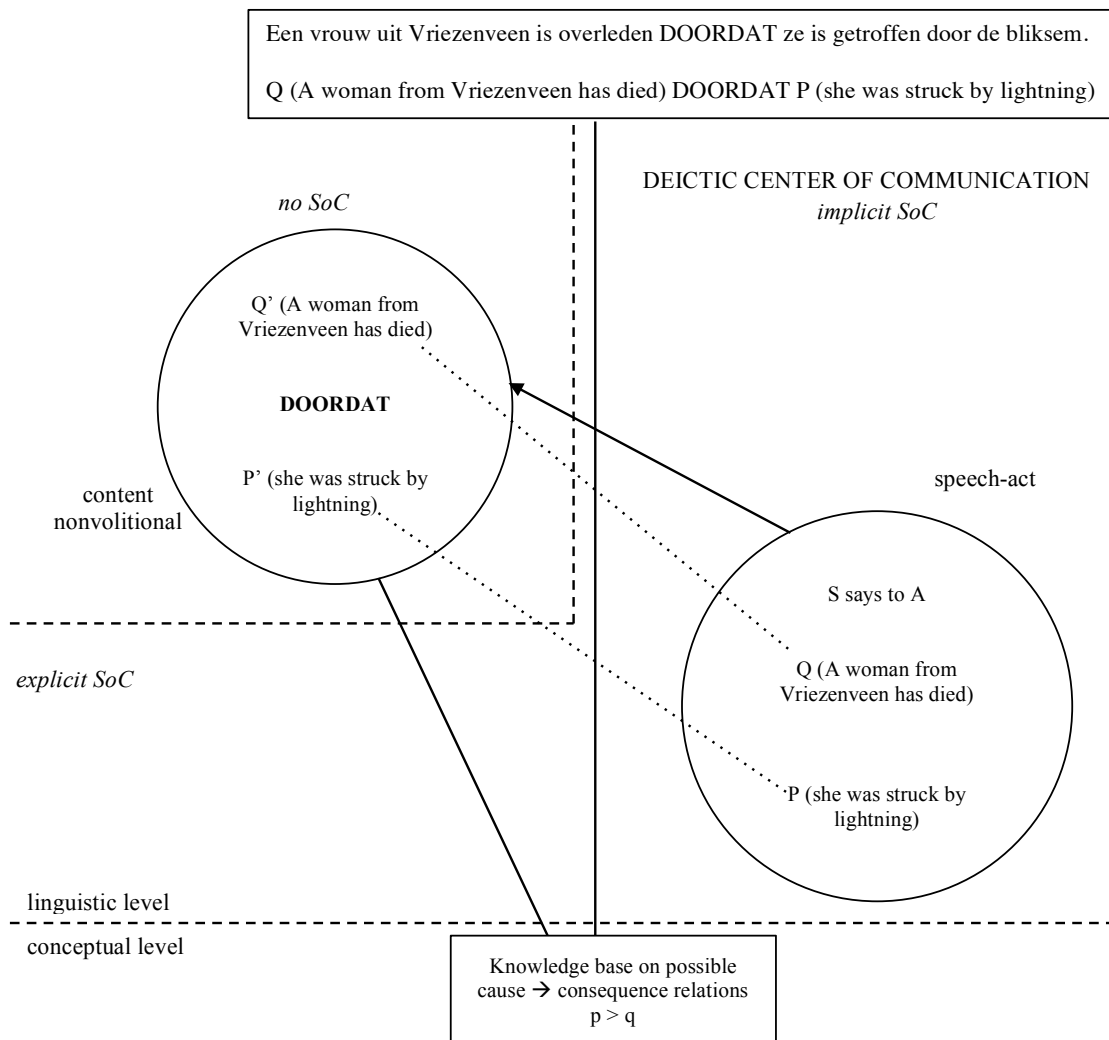
(29)   Een vrouw uit Vriezenveen is overleden **doordat** ze is getroffen door de bliksem.
        Q (A woman from Vriezenveen has died) DOORDAT P (she was struck by lightning)

This utterance in (29) begins in the speech-act space in which the speaker informs the audience of causally related states of affairs in the external world. These states of affairs in the external world are projected into the content nonvolitional space, since there is no SoC. In this case, the specialized Dutch connective *doordat* is used to constrain this BCSN configuration. As for more versatile connectives, in addition to the speech-act and epistemic spaces English *because* is also compatible with this space. However, certain others are not, such as *since, 'cause, for*, etc., which are more specialized for more subjective domains.

4.5.2   Content Volitional

A prototypical BCSN configuration prompted by a connective in the content-volitional domain can be diagrammed as in figure 4.5 below using the following sentence in as a representative example, as in examples (9) and (13) above.

(30)   *Jan ging zwemmen, **omdat** het een warme dag was*.
   Q (Jan went swimming,) OMDAT P (it was a hot day).

In this case, there is a SoC (Jan), but he is explicitly profiled in the content volitional space and distinct from the speaker here-and-now. The specialized BCC *omdat* is used to signal this sort of BCSN configuration where a situation in the external word (i.e. it being a hot day) is construed as the motivation for Jan's reasoning/action to go swimming.

Crucially, this is distinct from both the speech-act and epistemic domains on the one hand and the content-nonvolitional domain on the other hand because (unlike the content-nonvolitional domain) here we have a SoC, but (unlike the speech-act and epistemic domains) it is embedded in the content space as an object of conceptualization rather than being part of the subjective ground. This illustrates the important fact that a SoC in the content domain can potentially project his own BCSN. The implications of this will be further discussed in section 4.7. below on free indirect speech.

Furthermore, recall the discussion of example (17) above, repeated below for convenience.

(31) *Ik ging zwemmen, **omdat** het een warme dag was.*
   I went swimming, because it was a hot day.

70

Figure 4.5 Prototypical content-volitional BCSN configuration[82]
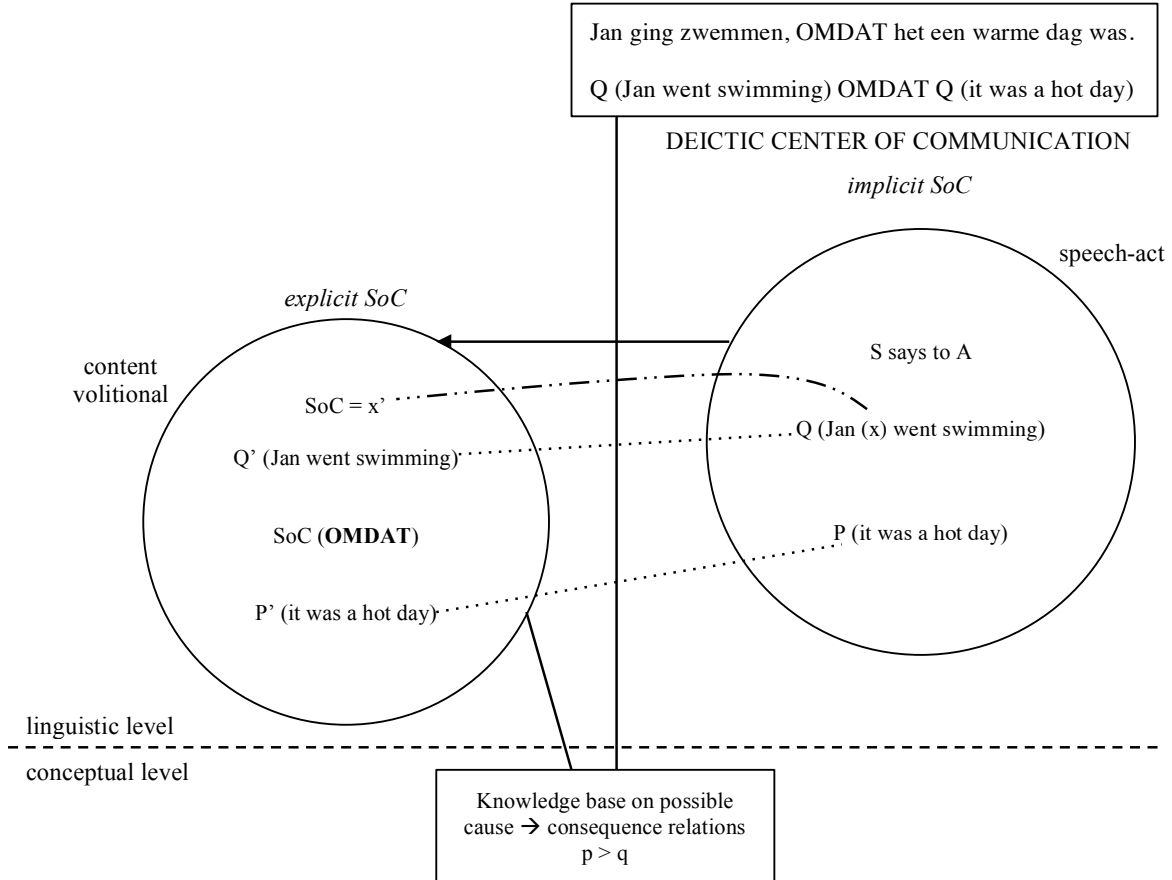
Regarding this utterance, it was noted that even the speaker may be projected as a character into the content-volitional space as an object of conceptualization. In a language with connectives specializing in this sort of causal relationship (such as *omdat* in Dutch), this sort of BCSN configuration is signaled by a content-volitional connective rather than one consistent with more subjective spaces such as the speech-act space where the SoC is prototypically implicit and identical to the speaker here-and-now. However, a connective specialized for the content-volitional domain may also signal a similar BCSN network when a speech-act and the SoC responsible for it (even if it is the speaker in the here-and-now) are explicitly profiled and projected into the content-volitional space as an object of conceptualization. T. Sanders *et al*. (2009:36) present the following utterance as an example that demonstrates this, though with *daarom*, the forward causal connective counterpart to *omdat*.

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[82] Taken from J. Sanders *et al*. (2012:201).

(32)   *Er is koffie en thee. **Daarom** vraag ik je wat je wilt drinken.*
       P (There is coffee and tea.) DAAROM Q (I ask you what you want to drink.)

The same is true when the SoC of an epistemic judgment is made explicit. An example of this from J. Sanders *et al.* (2012:202) is given below.

(33)   *Ik concludeer dat de buren niet thuis zijn **omdat** hun licht uit is.*
       Q (I conclude the neighbors are not at home) OMDAT P (their lights are out)

In other words, the crucial distinction between the content-volitional and other spaces is whether the causal relationship is projected into the content space by profiling it as an object of conceptualization, done here by making the SoC explicit. This will also be seen throughout section 8.1 below to create various prototypicality effects and fuzzy boundaries within the uses of causal כי.

4.6   Metalinguistic BCSN

A prototypical metalinguistic BCSN configuration can be diagrammed as in figure 4.6 below using the following sentence as a representative utterance expressing a metalinguistic causal relationship.

(34)   Can you ask the waiter for a serviette, (be)cause that's what they call a napkin here.

The connective here introduces the motivation, not for the illocutionary force of the speech-act (making the request), but for the lexical choice of the word "serviette" instead of "napkin." However, the implicit SoC is identical to the speaker here-and-now, thus warranting the use of either the more versatile *because* or the more subjective *'cause*. The causal use of *since* may also be appropriate in this utterance (cf. example (6) above).

72

Figure 4.6 Prototypical metalinguistic BCSN configuration

Can you ask the waiter for a serviette, (BE)CAUSE that's what they call it here.

Q (Can you ask the waiter for a serviette) (BE)CAUSE P (that's what they call it here)

DEICTIC CENTER OF COMMUNICATION
implicit SoC

no SoC

metalinguistic

Q' ((I use the word)
serviette)

(BE)CAUSE

P' (that's what they call it
here)

S says to A

explicit SoC

Q (Can you ask the waiter
for a serviette)

P (that's what they call it
here)

speech-act

linguistic level
conceptual level

Knowledge base on possible
cause → consequence relations
p > q

4.7   Pragmatic Extension

It has already been observed that the gradient nature of the subjectivity scale results in blurry boundaries between uses, resulting in prototypicality effects. That is, more subjective connectives sometimes appear in more objective contexts, and vice-versa. However, while overlapping uses may involve cases where the domain of use and level of subjectivity are somewhat ambiguous and fit multiple BCSN configurations, non-prototypical uses are not arbitrary exceptions. Rather, they are motivated from their prototypes and strategically employed for pragmatic effect. The concern here is to observe those more basic tendencies of pragmatic extension that may be heuristically employed for the analysis of causal כי.

73

It is also important at this point to note that this study approaches semantics and pragmatics as two poles of a continuum. Simply put, semantics is conventionalized pragmatics (cf. Grice 1975). That is, the less inferential processing required in order to arrive at a pragmatic meaning extension, the less pragmatic it becomes. In other words, the more a pragmatic extension is used and thereby automated and entrenched, the more semantic status it acquires. To borrow a turn of phrase used to describe the analogous continuum between syntax and morphology, today's semantics was yesterday's pragmatics. This can be conceived of similarly to the subjectivity scale (section 3.3.3), applied to the semantic-pragmatic continuum as in Figure 4.7 below.

Figure 4.7 Semantic-pragmatic continuum[83]
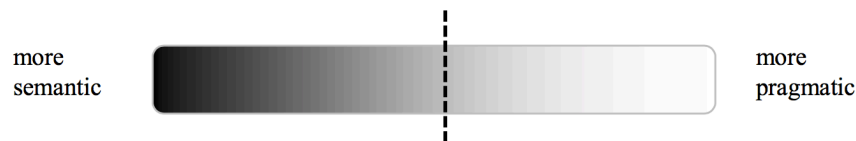
As described in Andrason and Locatell (2016:22):

> Because a certain sense conveyed by a form is semanticized to the degree that it is conventionalized, there is no exact boundary between semantics and pragmatics. One can venture at dividing the continuum into two at some more or less arbitrary point (indicated by the dashed line). However, it makes little sense to insist that either side of this arbitrary division is homogenously semantic or pragmatic and realistically reflects actual language use. Indeed, there are highly conventionalized and extremely innovative senses that can be identified with the semantic and pragmatic poles, respectively. However, this does not undermine the fact that these two ends of the spectrum form a fine gradient at their interface.

Riemer (2010:129–130) puts it well when he writes, "the boundary between semantics and pragmatics is porous" and "While we seem to be able to react to implications in the course of normal discourse, it does not seem to be possible for us to formulate any absolute test to distinguish between what an expression means and what it merely implicates: the boundary between semantics and pragmatics, therefore, is entirely fluid." Sanders & Spooren (2013:395) make this very point regarding the prototypical use of causal connectives and their pragmatic

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[83] From Andrason and Locatell (2016:23).

extensions.[84] Thus, by designating as "pragmatic extensions" the functions discussed below, I merely mean to say that these are extensions which are motivated by an already present meaning in the form's semantic potential (whether the prototypical meaning, or some other conventionalized extension). And these pragmatic extensions may have more or less semantic status according to their entrenchment relative to other senses within a form's semantic potential. With these concepts in mind, I now turn to a pragmatic extension for which prototypically subjective connectives may be leveraged.[85]

Prototypically subjective connectives may be leveraged for what Sanders & Spooren (2013:389) call the "easy-identification effect" for space blending. This is when a connective prototypically associated with the speaker as the implicit SoC is used with a narrative character SoC in order to provide an internal perspective on the character's epistemic reasoning or volitional action. While being a departure from prototypical usage, connectives prototypically identified with the speaker as SoC present themselves as suitable tools for identifying in various ways with another person by employing them in relation to a different SoC, seen in phenomena such as free indirect speech discussed above in section 3.5.2. Example (25) was presented as a case of free indirect speech resulting in a blend of speaker and narrative character epistemic spaces. For convenience, this is repeated here.

(35) *Jan zag dat de buren niet thuis waren, **want** hun licht was uit*.
       Q (Jan saw that the neighbors were not at home,) WANT P (their lights were out.)

As noted above, *want*, specialized for subjective domains where the SoC is identical to the speaker here-and-now, is used here with a third person SoC removed from the speaker here-and-now. This is explained by the fact that in free indirect speech the speaker and narrative character spaces are blended. That is, *want* is used because the character's epistemic space is accessed directly by blending it with the speaker's epistemic space, construing the reasoning

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[84] These concepts and the mechanisms by which uses undergo entrenchment will be discussed further in chapter 6 and especially section 6.1.4 as they relate to the diachronic development and synchronic organization of polysemy. While the point being made here concerns the polysemy of כי within the category of a causal connective, this semantic-pragmatic continuum is also crucial for category external relations, also discussed in chapter 6. There I will discuss the process of subjectification as an indication of the internal organization of כי's polysemy as a causal connective as well as the relationship between this typical causal use of כי and its various non-causal uses.
[85] As will be seen in chapter 8, the profile of כי in the Hebrew Bible is prototypically subjective. Therefore, while there are also motivated pragmatic uses for prototypically objective connectives, I will not discuss them. See Sanders & Spooren (2013) for more on this. Stukker & Sanders (2012) have showed that non-prototypical extensions of causal connectives across languages are explained by analogous motivations.

process through the character's eyes. This is diagrammed in Figure 4.8 below (adapted from J. Sanders *et al.* 2012:204).

Figure 4.8 3sg SoC Epistemic Blend
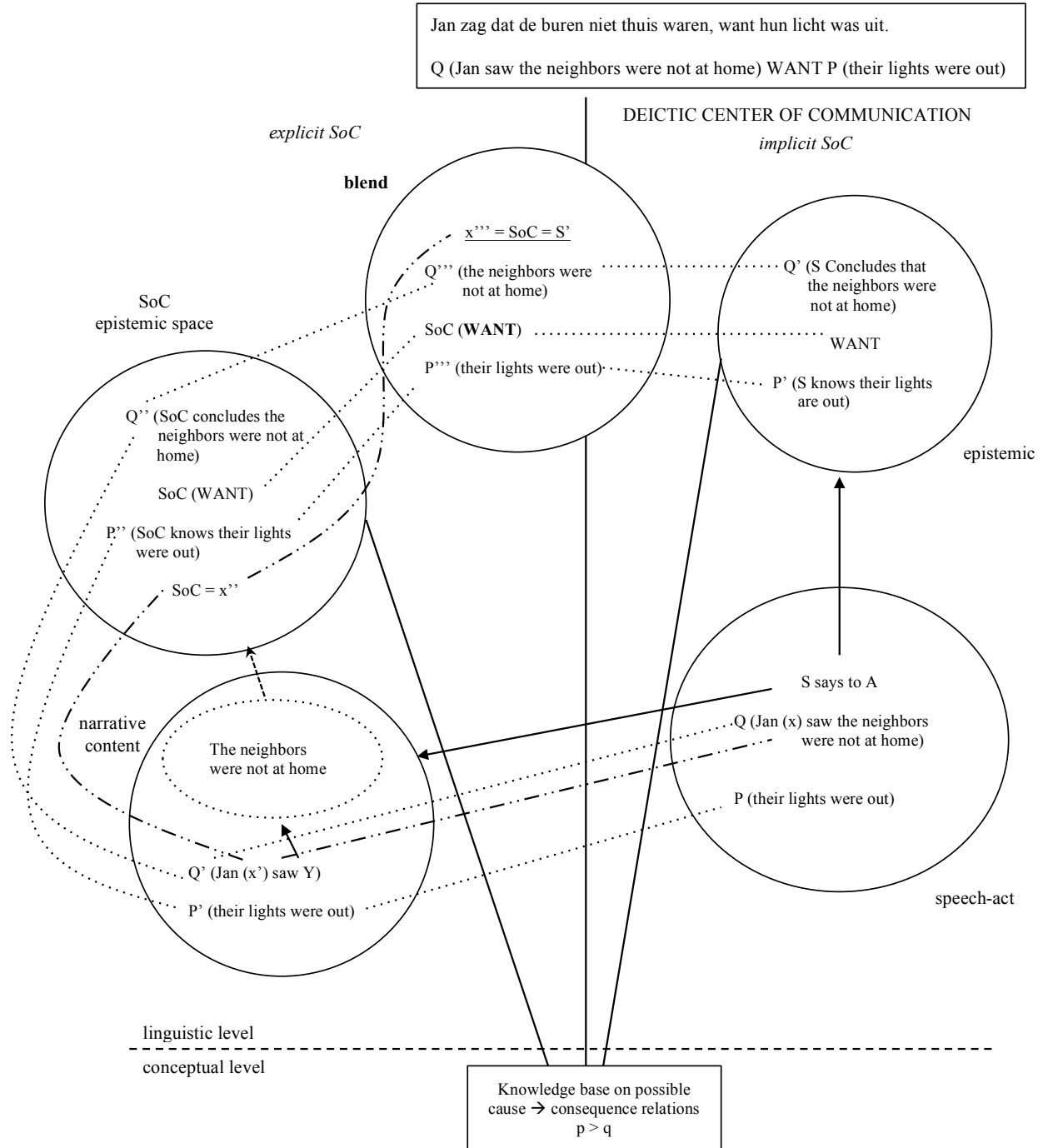
The utterance in the speech-act space projects the state of affairs into the narrative content space. Through embedding, the SoC (Jan) in the content space projects his own epistemic space containing his reasoning process concerning the neighbors not being home (J. Sanders *et al*. 2012:209). Crucially, the use of *want* signals that the speaker has entered the character's epistemic space, viewing it from the character's perspective, resulting in a blend of spaces. This also creates the effect of double-voice, or polyphony (Sanders & Spooren 2013:389). As J. Sanders *et al*. (2012:205) put it, "WANT enables the speaker's participation of the SoC's reasoning." It is as if the speaker, as the deictic center of communication here-and-now, has jumped into the thought process of the character, providing an internal perspective. "Thus, the BCSN approach allows us to describe recursive patterning which can represent not only the author's subjectivity, but also the subjectivity of embedded subjects, such as speakers and actors in a narration" (J. Sanders *et al*. 2012:209).

Note that this sort of blend becomes even easier if the third singular SoC in the narrative content space is left implicit as in the utterance below from J. Sanders *et al*. (2012:203):

(36) *De buren waren niet thuis, want hun licht was uit.*
Q (The neighbors were not at home) WANT P (their lights were out).

This can also be done with an explicit first singular SoC projected into the narrative content space away from the speaker here-and-now, as in the following example, taken from J. Sanders *et al*. (2012:205).

(37) *Ik ging zwemmen, want het was een warme dag.*
Q (I went swimming) WANT P (it was a hot day)

From examples like this, J. Sanders *et al*. (2012:205) observe the difference in nuance between content-volitional *omdat* (as discussed in section 4.5.2 above) and the free indirect speech use of *want*. In the case of the former, the volitional action of the SoC in the narrative content space is in view. In the case of the latter, it is the internal reasoning process of the SoC regarding the action that comes into view, which the speaker in the here-and-now construes through the character's eyes. Thus, space blending is an important possible extension of connectives prototypically associated with an implicit SoC that can be used to present an internal perspective

of a SoC other than the speaker. These insights will be important for my analysis of several uses of causal כי in what have been identified as free indirect speech, discussed in section 8.1.5 below.

4.8   Chapter Summary

In the above discussion I have described the basic domains that are primed "for free" in every communicative situation. Causal relationships may hold in each of these domains and take on prototypical mental space configurations in the BCSN—speech-act, epistemic, content, and metalinguistic. These represent conceptual prototypes which causal connectives in every language must be able to signal, since these relations are basic to linguistic communication. A particular connective may more or less approximate these types of causal relationships in its semantic potential, specializing in some or having uses across domains. However, when language users divide up causal relationships, they consistently do so along one or more of the distinctions presented in the BCSN. Crucially, however, these categories do not represent strict divisions between these types of causal relationship. Rather, they exhibit prototypicality effects and fuzzy boundaries in which certain causal relations may be compatible with multiple construals. In general, the most major division is between more subjective (e.g. speech-act, epistemic, and metalinguistic) and less subjective (e.g. content) causal relationships according to whether the interpretation of the causal relation requires a SoC, and how proximate that SoC is to the speaker here-and-now. I also described how these prototypical uses may be pragmatically extended in motivated ways, specifically in free indirect speech.

5   The syntax of causal connectives

"…grammar is semantics-driven…"   Glynn (2010:2)

5.1   Introduction

The previous chapters have presented the foundational concepts behind the BCSN model, a semantic profile of possible causal relationships marked by connectives, and how pragmatic extensions may develop in motivated ways from entrenched uses. In this chapter, I will discuss the relationship between the semantics of causal connectives and their syntactic characteristics. It will be argued that the syntactic profile of a causal connective is motivated by its semantics in principled and predictable ways. Simply put, the syntax of discourse connectives is an outworking of their semantics. Verstraete (2007:228) notes, "it has been observed by a number of authors that the semantic distinction between SoA [state of affairs]-related and speaker-related uses is also reflected in a number of syntactic differences." In his study of כי, Bandstra (1982:11) similarly notes, "It is generally recognized that semantic differences are usually accompanied by differences in syntax."

Most broadly speaking, connectives marking subjective causal relations tend to motivate more independent clauses while connectives marking objective causal relations tend to motivate more dependent clauses. This will serve as a theoretical point of departure for analyzing the syntactic profile of causal כי in section 8.2 below. Furthermore, these semantic and syntactic profiles will serve to corroborate one another. That is, observation of particular syntactic characteristics (e.g. independence/coordination) will indicate corresponding semantic characteristics (e.g. subjective causal relationship), and vice-versa. The main criteria used for analyzing the syntactic profile of a connective will be integration phenomena (IP), main clause phenomena (MCP), and the presence of one or more focal domains. After discussing each of these as they relate to the semantics of causal connectives, I will then briefly discuss a few syntagmatic features that tend to be distributed according to the domain in which a connective operates. These semantic and syntactic profiles will then be discussed as they relate to clause order in the clausal complex (i.e. initial or final position) and the management of given and new information. Finally, I will summarize the observations from chapters 3, 4, and 5 into a matrix of the most persistent semantic and syntactic corollaries. This will serve as the theoretical point of departure for the semantic-syntactic analysis of כי in chapter 8, especially section 8.3.

5.2   Motivating main-clause and integration phenomena

The domains of use and subjectivity discussed above have a further linguistic corollary that will be used to help determine the type of causal relation expressed by each token of כי in the selected corpus—compatibility with integration phenomena (IP) and main-clause phenomena (MCP). Before discussing the details of such phenomena and how they map onto different causal relationships, it will be helpful to briefly explain their relationship to subjectivity in order to understand why the meaning of causal relationships may be syntactically manifested in such phenomena.

Recalling the above discussion of subjective construal (section 3.3), a connective may not only signal a relationship between states of affairs in the external world (more objective), but may also relate states of affairs to the subjective ground of communication (more subjective). As it turns out, the level of subjectivity of an interclausal relationship has principled effects on the syntactic form of the clausal complex. Verstraete's (2007a) study, upon which the following discussion relies heavily, offers helpful explanations of why this should be the case.[86] He investigates the relationship between subjectivity (which he calls interpersonal grammar) on the one hand, and coordination and subordination in clause linking on the other. Verstraete demonstrates that the subjectivity of a secondary clause (such as that headed by a causal connective) depends on whether it has its own subjective values, or whether it participates in the subjective values of the main clause.[87]

For the purposes of the current research, the most informative observation from Verstraete's study is that MCP are only compatible with clauses that have their own subjective values independent from the main clause. That is, clauses compatible with MCP constitute a separate illocutionary move (e.g. justification) distinct from the main clause (cf. Van der Merwe 1993:38). On the other hand, IP are only compatible with clauses that do not posses independent subjective values and fall within the scope of the main clause's propositional content. In other words, both clauses in the clausal complex together form a single illocutionary move. This

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[86] It should be noted that, while Verstraete's research focuses on coordination and subordination in English, it is hypothesized to be productive crosslinguistically because of its functional basis. See Verstraete (2007a:261–280) for the typological outlook of his model, which argues for its crosslinguistic applicability. Indeed, its productivity for the description of causal כי syntax certainly illustrates its heuristic value.

[87] The term "secondary clause" will be used to describe the causal clauses under discussion. "Main clause" or "matrix clause" will be used to describe the clause motivated by the causal clause. These designations will help avoid giving the impression of a strict dichotomy between coordination and subordination, which, as will be presented below, are more accurately seen as a continuum with intermediate cases.

accords well with the previous discussion of subjectivity which has argued that causal relations in the more subjective domains are composed of 1) a speech-act, epistemic stance, metalinguistic choice, or volitional action in the main clause and 2) a causal clause that expresses the grounds for the main clause which requires a SoC as ultimate source of acting or reasoning. Crucially, each of these two components has independent subjective structure. On the other hand, causal clauses operating in the more objective content domain (especially the nonvolitional variety) do not have their own subjective values but fall within the propositional content of the main clause. In other words, the presence of independent subjective structure in the secondary clause is exactly what we would expect from causal clauses functioning in more subjective domains of use, and vice-versa. The payoff of this correlation is that the (in)dependence of a causal clause's subjectivity has motivated manifestations in the structure of the clause complex that help identify the type of the causal relationship being communicated.

5.2.1 Main-clause phenomena

I begin by looking at MCP. Only secondary clauses that are independent from the subjective values of the matrix clause and possess their own subjective values can exhibit such phenomena, which include, "preposing of negative adverbials, preposing of VPs, availability of tag questions, preposing of negative NPs, availability of exclamatory inversion, and availability of rhetorical questions" (Verstraete 2007:178). It has long been noted that these phenomena apply to traditionally recognized coordinators, like *and* or *but*, as well as to certain uses of traditionally designated subordinating connectives like *because* (Verstraete 2007:179).

Verstraete demonstrates such phenomena with a variety of connective uses from actual corpora. However, for convenience, consider the following sentences that illustrate these phenomena with causal connectives. First, I consider negative adverbial preposing.

(38) a. Speaker 1: Why isn't John at his desk today?
    Speaker 2: He got fired yesterday because he was so late for work.
  b. Speaker 1: Why isn't John at his desk today?
    Speaker 2: He (probably) got fired yesterday, because <u>never before</u> was he so late for work.

81

In the utterance by Speaker 2 in (38a), an objective causal relation in the content domain is presented without reference to a SoC.[88] John's tardiness is presented as the real-world cause of his being fired. However, a preposed negative adverbial in the causal clause is incompatible with this sort of objective, content nonvolitional interpretation.

On the other hand, in the utterance by speaker 2 in (38b), the causal clause does not present the real-world cause of John's being fired, but rather the basis for the epistemic conclusion expressed in the main clause. This is a subjective use in the epistemic domain. That is, the causal relation must be interpreted with reference to a SoC who is drawing the conclusion in the main clause based on the state of affairs in the causal clause. The reason that a subjective use (such as is compatible with the epistemic domain) can contain such a preposed negative adverbial, while an objective use cannot, is precisely because the clause in (38b) has a subjective value independent from the main clause and constitutes a separate illocutionary move of justifying the main clause. This is in contrast to objective, content uses, which do not have their own subjective values but form a single illocutionary move within the propositional content of the main clause.

That the causal clause in (38b) has a subjective value independent from the main clause is clear from the fact that it has a negative adverbial that only applies to the causal clause. This could be reinforced by the use of an overt modal marker in the main clause (e.g. *probably*), which would further show the contrasting modal values of the main and secondary clauses. This fits with the fact that the causal clause is not operating within a single proposition (that of the main clause), but is causally relating the epistemic conclusion of the speaker in the subjective ground of communication with the reason for drawing that conclusion presented in the causal clause. Importantly, note that the divergent syntax between the causal clauses in (38a–b) would still be in tact even if the preposed negative adverbial and modal marker were omitted from (38b). The divergent syntax would simply be less overt (except perhaps intonationally, as will be discussed below). This observation is crucial in distinguishing between dependent and independent syntax. That is, it is compatibility with, rather than the overt presence of main clause phenomena that constitutes greater syntactic independence.

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[88] Of course, John must have been fired by a volitional agent. However, as will be noted below, passive constructions mitigate this by demoting the agent to an optional adjunct.

Another MCP that illustrates the distinction between objective and subjective uses is the availability of rhetorical questions in the causal clause. For example, in (39a), the causal clause contains a rhetorical question. Again, this is possible because it is independent of the main clause's subjective values, enabling it to take a different clause type. These distinct subjective values may be further reinforced if a modal like "probably" is inserted in the main clause. Conversely, an objective, content nonvolitional causal relation does not allow interrogative forms in the causal clause. This is motivated by the fact that in these cases, the causal clause is dependent on the subjective values of the main clause because it falls within its propositional content. On the other hand, (39b) presents the real world cause of Brazil winning, namely, that they are the best team this year. Rhetorical questions are not licensed in these sorts of causal clauses, illustrated in (39c), which is precisely because they are part of the main clause's propositional content and dependent on its subjective values. Therefore such clauses cannot have their own clause type distinct from the main clause.

(39) a. Brazil is (probably) going to win the world cup this year, because who can stop them?
       b. Brazil is going to win the world cup this year because they are the best.
       c. #Brazil is going to win the world cup this year because are they the best?

Again, the position taken here is that these syntactic characteristics are epiphenomena of the interaction between the semantics and syntax of causal clauses. Certain causal clauses can exhibit MCP because they are independent from the subjective values of the main clause. This is the case because such clauses do not merely relate two states of affairs in the objective content domain (both within the propositional content of the main clause and within the scope of its subjective values). Rather, more subjective causal connectives relate a speech-act, epistemic stance, metalinguistic choice, or volitional action in the main clause (requiring a SoC) to the motivation for it in the causal clause. As stated by Verstraete (2007:232):

> The key to this explanation is that in order to function as a comment on the interpersonal structure [i.e. subjective values] of the main clause, a secondary clause should at least be outside the scope of that interpersonal structure… To put it in semantic terms, a secondary clause cannot be part of the propositional content of a particular speech act and at the same time serve as a comment on this same speech act.

Thus, this correlation between form and meaning provides an explanation for the distribution of such MCP and provides a heuristic tool for identifying causal relations holding in the more

subjective domains of use. As noted previously, it is also crucial to observe that comma intonation is characteristic of causal clauses functioning in more subjective domains. Thus, there is also an iconic phonological corollary to MCP and more subjective connectives, which may be orthographically represented as a comma (though not invariably so). That is, it seems iconically appropriate that secondary clauses that fall outside the scope of the main clause are separated phonologically as well. Even if this is not always possible in the analysis of ancient texts in cases where we do not have a reliable indication of intonation patterns, it is useful for more accurately rendering them in translation (discussed further regarding כי in section 8.2.3).

Additionally, Verstraete's typology of coordination-subordination distinguishes between two types of MCP based on the secondary clause's "interpersonal values," which I have been referring to more broadly as subjectivity (Verstraete 2007:178–81). Verstraete delineates a clause's interpersonal values as modality (the position taken regarding the propositional content of the utterance) and speech-function (assigning responsibility for the modal position to the speaker or the addressee in the declarative, interrogative, or imperative clause type), which together constitute canonical illocutionary force. Fully coordinate clauses have both independent modal and speech-functional values and are compatible with what he calls MCP type 1 and type 2, while secondary clauses with only modal value are only compatible with type 2. Examples of MCP type 1 are the availability of interrogative forms or exclamative clause types. Crucially, these are only available when a clause has its own speech-functional value (i.e. assigning responsibility for the modal position taken regarding the propositional content of an utterance). This is intuitively obvious, since, for example, the function of an interrogative form is precisely to assign responsibility to the addressee by asking the addressee to take a stance on the proposition of the utterance (cf. example (39a) above, see further Verstraete 2007:106–12). On the other hand, MCP type 2 include preposing of the VP, negative adverbial, or negative NP. These do not rely on the presence of speech-functional value (as with MCP type 1) but only modal value. This too has a semantic/functional motivation. Specifically, preposing of these constituents, as a focalizing construction, is an epiphenomenon of a proposition's challengeability where the element in focus is put forth for consideration by an interlocutor. For more on this, see Verstraete (2007:134–35). Thus, there is a more fine-grained distinction between canonical coordination one the one hand (with which MCP type 1 are exclusively compatible), and what Verstraete calls modal subordination on the other. In the case of modal

84

subordination, the clause does not posses a full set of interpersonal values characteristic of canonically independent clauses. Rather, the clause only possesses a modal value, not a speech-functional value. An illustration of this distinction is discussed further in example (53) in section 5.4 below.

5.2.2   Integration phenomena

Alternatively, IP correspond to causal clauses operating in the more objective, content domains for reasons analogous to the correlation between MCP and causal clauses operating in more subjective domains. Integrated clauses fall within the scope of the main clause's propositional content and subjective values of its interpersonal grammar. Thus, an integrated causal clause forms a single illocutionary move with the main clause. This means IP are incompatible with more subjective causal clauses since these more subjective uses provide the ground for the main clause and therefore must constitute a separate illocutionary move outside its scope. Therefore, Verstraete (2007:143–145) argues that the distinguishing feature between integrated and non-integrated clauses is that the former fall within the scope of the main clause's subjective values while the latter do not.

Several IP have been identified. Verstraete (2007:43–45; 167–176) observes that only integrated clauses can be the focus of a question, can fall into the scope of negation, can be included in a cleft sentence, and can introduce the answer to a WH-question. According to Verstraete (2007), as with MCP, these are epiphenomena of the underlying nature of the relationship between the main and secondary clause. Thus, these phenomena provide additional criteria for determining the domain within which a connective is functioning and offer an explanation for the correlation between a form's semantic potential and syntactic distribution.

For example, only integrated clauses can fall within the scope of negation. This can be illustrated by the following sentences, adapted from Stede & Peldszus (2012:224).

(40)   a. We should not go to the movies (just) because it is cheap.
        b. We should go because there is a good movie playing.

(41)   You cannot go to the movies, because you didn't clean your room.

In (40a), the causal clause falls within the scope of the main clause's illocutionary force. That is, it is part of the propositional content of the main clause and therefore shares in its modal and

speech-functional values. This is made clear by the fact that the causal clause falls within the scope of negation. This may be explicitly indicated by the focus particle "just" preceding the causal clause, showing that the focus of negation is the causal clause. Furthermore, (40a) could be followed by the positive statement in (40b) which reinforces such an interpretation. Therefore, these causal clauses are not motivating the utterance of the main clause itself, but are put forth as the proper or improper motivation for the action described in the main clause. However, in (41), the causal clause does not fall within the scope of the main clause's illocutionary force. This is clear from the fact that the causal clause does not fall within the scope of negation. It is not that the addressee can go to the movies, but for some other reason (as in 40a–b). Rather, the causal clause presents the motivation for the utterance of the main clause itself and thus constitutes a distinct illocutionary move (cf. Verstraete 2002:50; Couper-Kuhlen 1996:410).

Underlying these syntactic phenomena is the fact that more objective connectives are part of the propositional content of the main clause in the content domain and can therefore be the focus of that propositional content, either its negation, modalization, interrogation, or other focus structures. Analogous to MCP discussed above, this syntactic behavior is exactly what we would expect of causal clauses operating in the objective content domain that relate two states of affairs in the world, both part of the propositional content of the main clause and therefore within the scope of its subjective values.

5.2.3   Comma(less) intonation, (non-)integration, focal domains, and subjectivity

It has become clear that there is a motivated correlation between subjective causal clauses, MCP, and comma intonation on the one hand, and objective causal clauses, IP, and commaless intonation on the other (cf. Lang, 2000). The basic reason for this is that a clause complex with a main clause and objective causal clause constitutes a single focal domain (Verstraete, 2002:42–43). This can be seen in the fact that integrated causal clauses may be the focus of the entire clause complex. This does not mean the causal clause is always the focus of the clause complex, but it is available for focus. For example, the utterances in the b) sections of (42–43), from Verstraete (2002:43), may have different parts of the clause complex in focus (indicated by italics), either the causal clause, or some other segment of the clause complex.

(42)   [a: Why do people in Cyprus stay together?]
        b: People in Cyprus stay together *because divorce is socially unacceptable*.

(43)   [a. What are the consequences of the social taboo on divorce in Cyprus?]
        b. Well, people in Cyprus *stay together* because divorce is socially unacceptable.

On the other hand, this is not the case with non-integrated causal clauses. That is, the fact that non-integrated causal clauses are compatible with MCP and appear with comma intonation is due to the fact that they fall outside the scope of the main clause. As explained by Verstraete (2002:43), "With non-integrated *because*-clauses, on the other hand, the domain of focus assignment is no longer the entire clause combination consisting of main clause and *because*-clause. Each of the component clauses forms its own domain of focus, and assigning focus within one of them does not affect the status of the other, as it did with integrated *because*."

The correlation with these types of causal clauses and comma intonation can be illustrated with the following example adapted from Verstraete (2002:44).

(44) a. Sponsoring exchange students is worth it *economically*, because they will be *good ambassadors* for our country in their home country(, won't they?).
      b. It is because the exchange students will be good ambassadors for our country that sponsoring them is worth it economically.

In the first version of the utterance, the main clause and causal clause constitute separate focal domains, each possessing their own focal element (indicated by italics). The crucial payoff of this observation is that comma intonation is motivated by the fact that the causal clause has its own subjective values independent of the main clause (made explicit by the optional tag question that only applies to the causal clause, a MCP) and is therefore able to serve as the ground for the main clause utterance itself. That is why it constitutes a separate focal domain with its own focal element. On the other hand, the causal clause in the second version of the utterance is syntactically integrated, indicated by clefting, which is an IP and a focusing construction making the causal clause the focal element of the entire clause complex.

Once again, the crucial observation is that commaless intonation is motivated by the fact that the causal clause falls within the scope of the main clause subjective values and together form a single proposition and a single focal domain. It is equally crucial to note that (44a–b) are not simply different ways of saying the same thing. Rather, recalling chapter 4 above on the semantics of causal connectives, the causal clause in (44a) is functioning in the epistemic domain and gives the justification for the epistemic stance taken by the speaker in the subjective ground

87

of communication. It is a separate illocutionary move that is not part of the propositional content of the main clause, which is why it is able to act as justification for the main clause and contain a separate focal element. The causal clause in (44b), on the other hand, is not providing the justification for the speaker's epistemic stance in the main clause. Rather, it is presenting the real world causal relation between states of affairs more objectively (that is, with minimal reference to the subjective ground of communication) in the content domain. This is why it is able to be overtly integrated into the propositional content of the main clause, with commaless intonation, forming a single focal domain. While a versatile connective like *because* is compatible with both structures, the particular causal relationships are not.

The discussion so far has shown a strong correlation between comma intonation, MCP, and subjective causal clauses functioning in non-content domains on the one hand, and commaless intonation, IP, and objective clauses functioning in the content domain on the other. A third category includes objective causal clauses functioning in the content domain, but which constitute a separate focal domain from the main clause and are therefore non-integrated and have comma intonation. When a causal clause has its own focal domain or "discursive independence," the background knowledge of the interlocutors may allow for a content or non-content interpretation. It is left up to the context to constrain one interpretation or another, which may result in ambiguity of the precise nature of the causal relation (Verstraete 2002 and 2007:145–152, cf. Sweetser 1990:82–86).

For example, when a clause introduced by a connective can equally describe a causal relation in the real world or the justification for an epistemic stance taken by the speaker, this may result in ambiguity. Consider the following utterances, adapted from Sweetser (1990:83).

(45) a. Anna loves Victor *because* he reminds her of her first love.
      b. Anna *loves* Victor, because he *reminds* her of her first love.

In (45a), the causal clause presents the fact that Victor reminds Anna of her first love as the real world cause for why Anna loves him. Here, the clausal complex constitutes a single focal domain in which the main clause is presupposed and the causal clause is asserted. In (45b), however, both the main clause and causal clause constitute separate focal domains. Thus, the causal clause can be interpreted as the ground for the epistemic stance communicated in the main clause. However, it can also be interpreted as asserting *both* the fact that Anna loves Victor *and*

the real world cause of Anna's love for Victor. Deciding between the two interpretations would require assessment of the larger context to determine what elements the speaker is presupposing and asserting. For example, (45a) may be a response to the question "Why does Anna love Victor?" in which Anna's love for him is presupposed but the cause is not. On the other hand, an epistemic domain reading of (45b) could be the reply to the question "How does Anna feel about Victor, and how do you know that?" Alternatively, a content-domain reading could be the answer to the question "How does Anna feel about Victor, and why does she feel that way?" The crucial point is that a content domain interpretation of (45b) is compatible with comma intonation and non-integration because an objective causal clause may fall outside the focal domain of the main clause and constitute a separate, discursively independent focal domain.[89]

This means that not all causal clauses functioning in the content domain ought to be rendered with commaless intonation. Furthermore, the absence of or incompatibility with integration phenomena does not necessarily mean that the causal clause is functioning in a non-content domain. Rather, a causal clause may function in the content domain and lack its own subjective values, yet still constitute its own focal domain in relation to the main clause and therefore be structured to mark its own given and new information.

The correlation that emerges between domains of use, (non-)integration, and discursive (in)dependence of secondary clauses can be visualized as in Figure 5.1 below.

Figure 5.1 Relationship between semantics and syntax of causal connectives[90]

No independent subjective values (content domain)	Independent subjective values (non-content domains)
Discursively dependent (integrated)	Discursively independent (non-integrated)

Secondary clauses marked by IP, commaless intonation, and forming a single focal domain with the main clause are confined to content domain uses. On the other hand, secondary clauses with their own subjective values and operating in the non-content domains will be compatible with MCP, marked by comma intonation, and constitute a discursively independent focal domain.

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[89] Such ambiguity will also factor into the syntactic profile of causal כי as discussed in sections 8.2.2 and 8.3.
[90] Adapted from Verstraete (2002:52).

Crucially, however, discursively independent secondary clauses (constituting a separate focal domain from the main clause) may have both content and non-content domain interpretations. In these cases, it is left up to context, background knowledge, and lexically distinct connectives to disambiguate between these options. Connectives operating in the more objective content domain but discursively independent from the main clause can be described in terms of free subordination. That is, they do not have their own subjective values as a distinct illocutionary move, but nevertheless constitute a separate focal domain. Alternatively, content uses that are syntactically and intonationally integrated within the focal domain of the main clause can be described in terms of (bound) subordination.

5.3   Other syntagmatic markers of subjectivity and domains of use

Various other syntagmatic markers may accompany causal clauses which constrain a more objective or subjective construal of the causal relation. These cannot be exhaustively listed and are language specific in several cases. Chapter 3 already discussed various components of subjective construal, such as the presence and implicitness/explicitness of the SoC, the person of an explicit SoC (first, second, or third), the temporal distance between the SoC and the speaker here-and-now, as well as blending in free indirect speech. The main clause is the focus of analysis in assessing these factors since, as observed by Sanders & Spooren (2015:66), "that is the site where relational subjectivity is most manifest in backward causals: for example, in a Claim-Argument relation the argument can be very factual and objective."

Regarding temporal distance of a SoC from the speaker here-and-now, examples discussed above have noted that placing the SoC in the past demotes the subjectivity of a causal relationship, since it normally presents any SoC as a narrative character in the less subjective content space. However, Pit (2006:164) helpfully observes that the modal nature of future reference is compatible with a subjective construal (i.e. speech-acts and epistemic stance). Nevertheless, the most salient issue is whether the speaker functions as the SoC who is the ultimate source of reasoning/acting in the here-and-now, regardless of the bare presence of past or future time reference. A speaker may take an epistemic stance here-and-now about a future or past occurrence. It is only if the SoC him/herself as the source of reasoning/acting is placed in a distant temporal frame that it affects the subjectivity of the utterance. For example, consider the following, now familiar, utterances.

90

(46)   a. John loved her, because he came back.
       b. John came back because he loved her.

In (46a), the speaker takes an epistemic stance (John loved her) based on a certain state of affairs (he came back). The epistemic stance is concerning a past state of affairs on the basis of a past state of affairs. However, the epistemic stance is taken by the speaker as the implicit SoC in the here-and-now. Conversely, in (46b), the third person SoC himself as the source of reasoning/acting and the causal relationship between the action and its motivation are placed in a past temporal frame. This latter utterance presents a lesser degree of subjectivity, whereas the former does not.

Other examples of linguistic cues that may overtly mark an utterance as more or less subjective include passive constructions, which seem to inhibit a content-volitional perspective and constrain a more objective content nonvolitional construal. Pit (2006:163–164) notes that passive constructions mitigate the ability to present the perspective of another since it demotes the agent to an adjunct, or at least displaces the agent from the subject position. Scalar predicates (e.g. *very*, *much*, etc.) make judgments more easily identifiable. Other linguistic features that help constrain the subjectivity of an utterance will also be noted for each token in the study, such as volitive verbs and markers of epistemic stance (e.g. *surely*, *perhaps*, etc.), as well as markers of personal and temporal dexis (cf. Vandelanotte 2004). Pit (2006:163) also points out that negative polarity (the negation of a proposition) may be an indication of subjectivity: "Negative polarity items invoke the presence of other (generally, opposite) perspectives" and in turn, "The presence of multiple perspectives in one utterance is considered to be indicative of the argumentative nature of the discourse. Evoking an (abstract) nonagreeing interlocutor underlines the perspective adopted by the speaker." For a more comprehensive list of factors, see Pander Maat & Degand (2001) and Pit (2003: esp. chs. 3–4, 2006).

5.4   Clause order, information structure, and mental space building

In addition to what has been discussed above, position in the clause complex (i.e. initial, final, and medial), the management of given and new information, and the negotiation of mental spaces are crucial factors for the semantics and syntax of causal clauses. As Verstraete (2007:245) points out concerning adverbial clauses in initial and final position, "these two

positions are not simply alternative locations for the secondary clause, but that they also have different functional and discursive properties." The relationship between clause order, information structure, and mental space building in discourse offers clues as to the import of these differing clausal orders.[91] These correlations will provide further parameters for a fuller semantic-syntactic profile of causal connectives. More specifically, the position of the causal clause relative to the main clause is motivated by considerations of presupposed versus newly asserted information in the discourse context and how mental spaces are navigated and modified as the discourse unfolds. Above, I already discussed how comma intonation correlates with the presence of distinct focal domains in the main and causal clauses (and vice versa). This observation will now be extended to show that the number of focal domains in the clause complex correlates with the presupposed or newly asserted status of one or more elements within the broader context. Furthermore, the management and modification of mental spaces has cognitively and discursively motivated preferences for particular arrangements of secondary clauses depending on the semantics of the connective, the domain of use within which it is operating, and the (non-)presupposed status of the information in the clause complex.

At the outset, it is important to note that the prototypical order of causal connectives is *Q because P*. This also conforms to the typological observation that, in VO languages (corresponding to the use of clause initial discourse connectives like כי) which allow for a mixed ordering of adverbial clauses, different connectives will have semantically-based preferences along a hierarchical cline. Diessel's (2001:466) typological analysis observes the preferences as seen in Figure 5.2 below.[92] These tendencies offer additional heuristic parameters for distinguishing between these senses within the functional potential of כי.

The preference of backward causal clauses for position after the main clause may seem to go against the iconicity of "cause-then-effect." Diessel (2005:464) points out that "a significant number of adverbial clauses does [sic] not conform to the iconicity principle because discourse pragmatic and processing considerations are in conflict with the semantic motivation for an iconic ordering." From a MST perspective, final order preference makes sense in light of the fact

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[91] For a detailed account of the theory of information structure, see Lambrecht (1994), and its application to Hebrew in Heimerdinger (1999), Floor (2004), Lunn (2006), Westbury (2014), and Van der Merwe *et al.* (2017).

[92] Diessel's study analyzes a representative sample of 40 different genetically and geographically distinct languages. This both corroborates and provides a more fine-grained perspective on Bandstra's (1982) observations along these very lines concerning the distribution of different כי clauses. Additionally, in terms of clause length, Diessel (2005:453) observes that adverbial clauses longer than the main clause are much less likely to be preposed.

that causal connectives, unlike conditional or temporal connectives, typically do not build mental spaces. Rather, they elaborate already active mental spaces, represented by the main clause, which is often not newly asserted, but presupposed. Furthermore, commaless intonation in this clausal ordering makes readily available an interpretation of the main clause as presupposed, whereas comma intonation constrains an interpretation of some aspect of the main clause as not presupposed, but part of a separate illocutionary move in distinction from the causal clause (Sweetser 1990:82–86, and Dancygier & Sweetser 2005:180–181).

Figure 5.2 Clause order preference according to semantic type

Conditional	Temporal	Causal	Result/Purpose

←——→

Preposed   Postposed
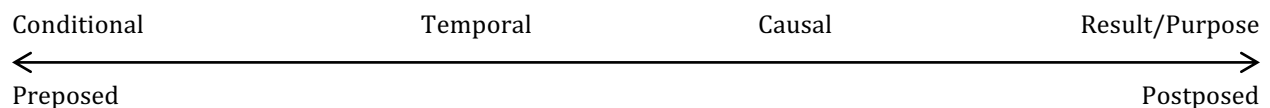
I now present the five possible organizations of causal clauses within the clause complex and then discuss each in terms of its structuring of presupposed and given information, as well as the management and modification of mental spaces in discourse. The focus here will be on the prototypical usage of such constructions (of course, because of prototypicality and radial extensions, motivated departures from typical usage are expected). Following Sweetser (1990) and Dancygier & Sweetser (2005), the five constructions given in Table 5.1 below are possible (cf. Lang 2000; Evers-Vermeul 2005:24). Clause order and comma(less) intonation are the two main syntactic parameters distinguishing each of the five types. Regarding type 5, the causal clause is inserted medially between constituents in the main clause. Essentially, this can be seen as a subset of type 4, but in which the causal relation holds more specifically between the causal clause and the particular constituent of the main clause it follows. I will return to this below.

Beginning with type 1, this clause order is typical of backward causal connectives. For the *Q because P* ordering with commaless intonation, a readily available interpretation is that of a content usage relating a state of affairs with a real world cause where the clause complex constitutes a single focal domain in which the main clause is presupposed and the causal clause is asserted. In fact, the commaless intonation constrains a content domain interpretation. Type 1 would be an appropriate answer to the question "Why are you going to work at the office?" Here, the fact that the speaker will work at the office is already given in the mental space receiving

additional structure and the causal clause is the elaboration of that mental space. Thus, in addition to the above discussions of MCP and IP, which explain why this integrated causal clause can only operate in the content domain, the presupposed status of the main clause constrained by the discourse context and its initial position in the clause complex also explains its restriction to a content-domain usage. Namely, the main clause cannot both assert an epistemic stance or perform a speech-act and at the same time be already given (Dancygier & Sweetser 2005:181; cf. Lakoff 1987:478).

Table 5.1 Five construction types of BCCs[93]

Type	Clause order	Example
1	*Q because P*	I'm going to work at the office because my home computer broke down.
2	*Because P Q*	Because my home computer broke down I'm going to work at the office.
3	*Because P, Q*	Because my home computer broke down, I'm going to work at the office.
4	*Q, because P*	I'm going to work at the office, because my home computer broke down.
5	*Q, because P, RS*	John, because that's what he wants to be called now, loves Mary.

Thus, regarding type 1 constructions, Dancygier & Sweetser (2005:180) explain, "in their main function, they assert the causal relationship between P and Q, with Q often presented as presupposed." A corpus example they provide is the following.

(47)   These people can't pass through the door because they haven't been invited.

In this example, the writer is describing a scene where people are not able to enter a virtual club. The fact that they cannot enter is contextually obvious, and therefore given. It is the cause that is asserted. This fits with the above discussion of the correlation between commaless intonation and a single focal domain and situates it within the larger discourse context. In terms of clause order, while it is intuitively appropriate for *if* and *when* clauses, as space builders, to first build the

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[93] As noted in chapter 3 above, the *Q because P* notation represents the direction of causation where *P* is the cause or ground of *Q*. In type 5, the main clause is represented by the sequence *QRS* and the *P* is inserted after the particular part of the main clause for which it is the cause or ground.

space within which the main clause obtains and then fill it with the main clause content, in the case of *because* clauses, which typically elaborate already existing mental spaces in discourse, it is appropriate to first describe a situation and then elaborate its cause. Thus, clause ordering, information structure, and mental space mechanics (along with background knowledge) all contribute to constraining a content interpretation of the causal relation in which the causal clause is part of the propositional content of the main clause (integrated with commaless intonation), the causal clause itself is structured as the new assertion relative to the presupposed main clause content, and therefore elaborates the already given mental space in which people are not able to enter the virtual club (cf. J. Sanders *et al*. 2012:193).

However, *because*-constructions with commaless intonation may also have preposed causal clauses, as in type 2. Again, it is important to bear in mind that, while integrated causal clauses marked by commaless intonation constitute a single focal domain along with the main clause, the causal clause itself need not be the focal element. Indeed, the main clause may function in that capacity. This may be the case when the content of the *because*-clause (and even the causal relation between that content and some as yet unknown state of affairs) is already given and it is the main clause that is newly asserted.[94] So, type 2 might be the response to a question like, "Now that your home computer broke down, what will you do?" Notice that in this context, the content of the causal clause (i.e. the state of affairs that the home computer broke down) and even the causal relation itself are already given. It is the addressee's subsequent course of action in the main clause that it newly asserted. The addressee could simply reply, "I'm going to work at the office." In this case, the already given state of affairs and its causal relation to the addressee's response is stated in a preposed *because*-clause in order to create discourse continuity through, for example, tail-head linkage (cf. Dooley & Levinsohn 2000:8; Longacre & Hwang 2012:7–8; Hengeveld & Mackenzie, 2008:3).[95] Regarding the domain of use in which this construction may function, as with type 1, its integration with the main clause restricts it to the content domain. Though, due to the strong preference of *because*-clauses to appear in final

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[94] On the given status of preposed *because*-clauses, see Lakoff (1987:474–481) and Larson & Sawada (2012:61-63), and references there. However, it is important to note that there are other motivations for preposed *because*-clauses even when they contain newly asserted information. This is the case of construction type 3 discussed below.
[95] This is not to say that the repeated content in a tail-head linkage construction must be completely given. The repeated content may be contextualized in a way that makes some element newly asserted. Tail-head linkage is also accomplished in a variety of forms.

position, and of preposed causal clauses to have comma intonation, this precise discourse situation is rare (see Wald 1986:163; Verstraete 2007:165–166; 248–250; Kitis 2006:227–228).

Moving to type 3, the *because*-clause here has comma intonation in addition to being preposed. As noted above in section 5.2.3, this construction type is compatible with both content and non-content interpretations. That is, as presented in Figure 5.1, non-integrated adverbial clauses marked by comma intonation are discursively independent and constitute a separate focal domain. This may be used to present a causal relationship in the content domain, illustrated by the example in (48) from Dancygier & Sweetser (2005:181), or in a non-content domain such as the speech-act domain, as in example (49).

(48)   Now, because you screwed up, Uncle Enzo doesn't get his wish.

(49)   Because you're so smart, what's the capitol of Denmark?

Again, as discussed in section 5.2.3 above, the crucial difference between these two causal relations is that the causal clause in (48) modifies the propositional content of the main clause by presenting its real-world cause. In (49), the causal clause falls outside the propositional content of the main clause and is therefore able to be the justification for the main clause question.

In terms of information structure, in both cases the content of the causal clause is presupposed. In the context of the corpus example in (48), the fact that the addressee "screwed up" has already been established. Only the causal relation itself is newly asserted. This explains why comma intonation is used even though the causal relationship holds in the content domain. The comma intonation separates the causal clause from the main clause as two separate focal domains each containing newly asserted elements—the causal relationship in the causal clause and the resulting outcome in the main clause.[96] Dancygier & Sweetser (2005:182–183) point out that this also explains the overlap between preposed *because*-clauses and *since*-clauses, the latter of which lexically constrain the presupposed status of the causal clause content and prefers preposed position. Consider example (50), the *since* version of (48).

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[96] The presupposed status of the causal clause content also explains why the causal clause in (49) is incompatible with non-declarative clause types such as interrogatives, even though it was shown above that non-content uses are generally compatible with interrogative clause types and other MCP. The reason for this is that speech-acts, such as questions, cannot be performed and presupposed at the same time (again, see Dancygier & Sweetser, 2005:181 and Lakoff, 1987:478). Lakoff (1987:478–479) argues that strictly speaking, it is not the syntactically preposed position, but the status of the clause as presupposed that restricts this usage.

(50)   Now, since you screwed up, Uncle Enzo doesn't get his wish.

The overlap between (48) and (50) makes it difficult to distinguish any difference in meaning. Both express a causal relationship between the states of affairs in the causal clause and the main clause. Both the preposed position of the *because*-clause and the lexical choice of *since* (which has a semantically motivated preference for preposed position) constrain an interpretation of the causal clause content as given.

From a mental space perspective, Dancygier & Sweetser (2005:181) note that "The need to contextualize the content of the *because*-clause in preceding discourse or to ensure topic continuity may affect clause-sequencing options" (cf. Diessel, 2001:448, 2005:460; Verstraete, 2007:246). That is, a preposed *because*-clause with comma intonation is well suited to create topic continuity by presenting content already given in the base space and only newly asserting some additional contextualization and/or the causal relationship itself. In (48), the mistake of the addressee is already given, but the causal relationship with its result (that Uncle Enzo doesn't get his wish) is newly asserted as additional structure to the base space. In (49), the (supposed) intellectual aptitude of the addressee is already given or inferable from the context. The preposed causal clause presents that given information as the ground for the question in the main clause.

Type 4, like its commaless intonation counterpart in type 1, typically signals that the causal clause is newly asserted and serves to add additional structure to the mental space content presented in the main clause. However, in terms of domains of use, type 4 seems to prefer non-content interpretations where the causal clause provides the justification for the utterance in the main clause, either as a speech-act or epistemic stance. Recall the above discussion of type 1 with the same clausal order, but without comma intonation. It was observed that in *Q because P* order (typical of backward causal connectives), the absence of comma intonation (signaling a single focal domain) constrains a given status on the main clause with the causal clause being newly asserted. However, this is incompatible with the main clause being a newly asserted epistemic stance or newly performed speech-act. Conversely, the comma intonation of type 4 creates a separate focal domain in the main and causal clauses, allowing for newly given epistemic and speech act utterances in the main clause. Thus, the difference between type 4 and its commaless intonation counterpart in type 1 is that the causal clause in type 4 is not constrained to presenting the real-world cause of the main clause, but may provide the reason for

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uttering the main clause. This is less obvious in the example used for type 4 in Table 5.1 because in this case, the content of the causal clause can be both the real world cause of the main clause, as well as the speaker's justification for uttering the main clause, the difference being signaled by the presence or absence of comma intonation. The distinction between types 1 and 4 is more clearly seen when both interpretations are not equally available on our background knowledge. For example, the utterance in (51) cannot be interpreted as presenting a real world cause for a state of affairs.

(51)   John got fired, because his wife told me.

Our background knowledge tells us that the causal clause is not a real-world cause of the main clause, but is the typical sort of justification for an epistemic stance. A corpus example of this type in the speech-act domain is illustrated in (52) from Dancygier & Sweetser (2005:181).

(52)   Well, let's get you some food, because I know you are all hungry.

Here, it is clear that the causal clause is the ground for the speech act uttered in the main clause.

It is also important to note that type 4 may also be considered to include examples of coordinating causal clauses following the utterance they motivate (composed of one or more clauses) and orthographically separated by a period. As discussed above in section 5.2.1, MCP apply not only to traditionally recognized coordinators, like *and* or *but*, but also to certain uses of traditionally designated subordinating connectives like *because*. This constitutes a strong argument for recognizing both subordinate and coordinate uses of such connectives (Verstraete 2007:179). Indeed, the thesis persuasively argued for by Verstraete is that coordination and subordination do not constitute a rigid dichotomy, but form a more fine-grained continuum with intermediate cases (cf. Hopper & Traugott 2003:176–184; Evers-Vermeul 2005:20; Kitis 2006:245–246). Furthermore, the gradient nature of the interface between coordination and subordination means that we should expect to see ambiguous cases where multiple interpretations are possible.

Another important observation regarding this construction type is that coordinating conjunctions cannot be preposed before the clause to which they are related (Verstraete, 2007:162–167). Thus, there is a correlation between coordination, final position of the causal

clause, and subjectivity. Namely, only non-content (i.e. subjective) uses are compatible with coordination, and coordination is only compatible with position after the clause being modified. As seen in (53a–b), clauses governed by a coordinating conjunction cannot be preposed.

(53) a. And he [Elisha] left the oxen and ran after Elijah and said, "Let me kiss my father and my mother and then I will follow after you." And he said to him, "Go, return. For (כי) what have I done to you?" (1 Kgs 19:20)

b. # And he [Elisha] left the oxen and ran after Elijah and said, "Let me kiss my father and my mother and then I will follow after you." And he said to him, "For (כי) what have I done to you? Go, return."

In the grammatically acceptable example (53a), the coordinate clause headed by *for* expresses the ground for the speech act performed in the previous clause. The reason Elijah tells Elisha to go is because, as he points out, he never did anything to stop him. However, this coordinate causal clause cannot be preposed before that which it motivates. This is not only true of *for* in English. When כי governs an interrogative clause (e.g marked by מה), it is never preposed before the clause that it motivates. Recall the discussion of MCP above which explains why an interrogative clause type marks coordination, and therefore a subjective domain of use. Verstraete (2007:164) explains this position restriction with the following suggestion:

> The fact that preposing blocks non-declarative clause types for conjunctions that do not have any inherent restriction on non-declarative clause types can be regarded as evidence for the fact that the absence of speech functional values is a constructional property that is associated with the preposed slot rather than with the particular conjunctions associated with it.

This reveals the overlapping usage between connectives restricted to coordination, like *for*, and those that may function at different points on the cline between subordination and coordination, such as *because*.

Finally, as noted above, type 5 can be seen as a subset of type 4. This construction type is especially suited for modifying particular elements in the main clause, which is why causal clauses operating in the metalinguistic domain are often of this type. A typical example of this construction is given in Table 5.1 and repeated here for convenience.

(54) John, because that's what he wants to be called now, loves Mary.

Here, it is not the entire main clause being motivated by the causal clause, but a specific element within it. In this case, the speaker uses a new name for the person being talked about and then justifies that with the causal clause. As noted in section 3.2 above, this domain of use is distinct from the speech-act domain in that it does not motivate the illocutionary force of the utterance as a speech-act. Rather, it motivates the particular metalinguistic choice to use the name "John" as apposed to another name. This construction, where the causal clause interrupts the main clause (what we may call a medial position), is not necessary for a metalinguistic interpretation (recall example (6) in section 3.2 above). However, the position of the causal clause after the specific constituent that it justifies lends itself to this function. In fact, metalinguistic uses seem to prefer this construction. Regarding metalinguistic uses of *if*-clauses, Dancygier & Sweetser (2005:131) observe that "…these are often characterized by an unusual clause-order sequence, such that the metalinguistic *if*-clause is embedded inside the Q-clause, rather than following or preceding it." In fact, this construction must be available for metalinguistic uses "because they comment on a particular fragment of the Q-clause rather than on the clause as a whole. It has to be clear which particular expression is being qualified, hence the required adjacency of P and the expression" (Dancygier & Sweetser, 2005:131). As such, there is a strong, though not absolute, correlation between this construction type and a metalinguistic interpretation.[97] Thus, this type of construction seems to be incompatible with content interpretations and preferential toward metalinguistic uses.

Considered together, these observations on clause position and location on the coordination-subordination cline corroborate the previous discussion on MCP and IP and provide further syntactic characteristics of causal clauses. Namely, the integrated causal clauses in types 1 and 2 constrain a content interpretation of the causal relationship, types 3 and 4 are compatible with both content and non-content interpretations, and type 5 constrains a non-content interpretation that is most strongly associated with a metalinguistic use. Furthermore, type 4 constructions orthographically separated by a period or phonologically separated by period intonation are restricted to non-content uses in which the causal clause motivates one or more clauses in the preceding utterance (cf. Couper-Kuhlen 1996, Kitis 2006). In addition to the reasons for this given in the discussion of MCP and IP above, this distribution is also motivated

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[97] However, there may be cases where a non-metalinguistic interpretation is compatible with this sort for construction. See Dancygier & Sweetser (2005:179).

by the fact that content relations are compatible with the P clause, the Q clause, or the causal relation itself being either presupposed or newly asserted. On the other hand, it would be exceptional for a speech-act, epistemic stance, or metalinguistic choice in the main clause to be presupposed. Therefore, non-content relations resist integrated constructions in either initial or final position. In light of MST, we also have a ready account for the discourse factors that motivate departures from the preferred final position of backward causal clauses. That is, the presupposed status of the causal clause and the desire to create topic continuity motivate preposed position, as in clause complex types 2 and 3 discussed above.

5.5   Summary: A semantic-syntactic profile of causal discourse connectives

The main observations made in this chapter are that MCP are only compatible with secondary clauses that the have their own subjective values independent of the main clause and thus operate in the more subjective domains (e.g. non-content uses). Alternatively, IP are only compatible with secondary clauses that share in the subjective values of the main clause and thus operate in the more objective domains (e.g. content uses). However, discursive independence in which the clause complex contains two separate focal domains accounts for instances of content uses which are not integrated into the main clause. These formal features are functionally and cognitively motivated epiphenomena of underlying subjective values of the clause complex.

When these factors are taken into account, it becomes clear that coordination and subordination are two poles on a more fine-grained continuum (cf. Diessel 2001:437–439). Specifically, I adopt Verstraete's (2007) functionally motivated and crosslinguistically plausible typology of coordinate and subordinate clause types which form the following cline: bound subordination > free subordination > modal subordination > coordination.[98] Importantly, these are four "cluster points" on the cline (cf. Hopper and Traugott 2003:176–184) that have fluid and fuzzy boundaries and therefore admit potentially ambiguous cases intermediate even to these more fine-grained categories.

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[98] The directional arrows presented in between each of these categories indicate gradual syntactic change over time accompanying the semantic change of connectives in the process of subjectification, which will be discussed further in section 6.2. Also note that while this is a competing evolutionary pressure to other clines such as discourse > syntax > morphology > morphophonemics > zero (Hopper & Traugott 2003:176; Heine *et al*. 1991:245), or parataxis > hypotaxis > subordination (Hopper & Traugott 2003:177–179), they do not constitute counterexamples to unidirectionality, since in each case a different phenomena is taking place according to different mechanisms of language change.

As for clause order, it was observed that content and non-content uses may appear in initial or final position in the clause complex for discourse or mental space building purposes. However, backward causal connectives in final position and orthographically (or prosodically) separated by a period (intonation) constrain a non-content interpretation. Additionally, intermediate position of the causal clause constrains non-content interpretations and prefer metalinguistic uses.

Table 5.2 The semantic-syntactic matrix of causal connectives[99]

	Domain	SoC	Person	Time	MCP/IP	(In)dependence
Subjective	SA/ML	Implicit	1	T = H&N	MPC	CO
	Ep					MS
		Explicit	2		DI	
	CV		3			FS
Objective	CNV	Absent	Ø	T ≠ H&N	IP	SUB

Semantic ⟷ Syntactic

The most crucial semantic-syntactic corollaries from chapters 3 through 5 are presented in Table 5.2 above and arranged according to subjectivity. Note, however, that each column of features is organized relative to the scale of subjectivity, but only loosely in relation to the factors in other columns. For example, while BCCs operating in the speech-act domain often have an implicit SoC, they may also have an explicit SoC. Alternatively, some of the correlations seem virtually absolute. For example, BCCs operating in non-content domains are consistently incompatible with IP. Thus, the correlations across columns of factors should be considered strong tendencies rather than absolute. Other clues, some of which have been presented in the preceding discussion, which help constrain one interpretation or another will be noted for each

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[99] Key: CNV = content nonvolitional; CO = coordination; CV = content volitional; DI = discursive independence; Ep = epistemic; FS = free subordination; IP = integration phenomena and its various corollaries discussed above; MCP = main clause phenomena and its various corollaries discussed above; ML = metalinguistic; MS = modal subordination; SA = speech-act; SUB = subordination; T = time of speech-act, metalinguistic choice, epistemic judgment, volitional action, or real-world causal relationship.

token as they appear relevant in the data. In the main, it is this matrix of semantic-syntactic correlations that will serve as a theoretical point of departure for the analysis and categorization of causal כי in the Hebrew Bible in chapter 8.

6   Grammaticalization, subjectification, and the organization of polysemy

> "*Comparing grammatical categories across languages from only a synchronic perspective is something like comparing an acorn to an oak tree: They appear to have distinct and unrelated properties. Only when we observe these entities across the temporal dimension do we see the relationship between them. Similarly with grammatical categories and constructions: New relationships are observable when we take into account where particular grammatical constructions and categories come from and where they are going.*"   (Bybee 2003:151)

So far, I have focused on the semantics and syntax of causal connectives. However, I have only briefly touched upon the mechanisms that may drive the polysemy of causal connectives, resulting in speakers' ability to employ them within several different domains of use and syntactic constructions (e.g. sections 3.4, 4.7, and 5.5). Furthermore, a glaring omission remains. Namely, the various other uses that כי may have in addition to its function as a causal connective. How do we incorporate such polysemy and polyfunctionality into a unified profile of a connective like כי?[100]

To offer one brief example that illustrates the line of thought I will pursue in this chapter, the English word *as* may function as a similative/equative preposition, as in example (55a) below. It may function as a temporal adverb of simultaneity as in (55b). It may also function as a causal connective as in (55c).

(55)   a. His hair turned white as snow.
　　　b. I saw a twenty-dollar bill as I was walking down the street.
　　　c. Whoever owns the coffee cup in the lounge, can you please pick it up, as it is
　　　　 beginning to grow things.

For reasons I will discuss below, we would be rightfully skeptical of analyses asserting that there is no difference between the preposition, temporal adverbial subordinator, and more coordinate

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[100] Fischer (2006:12) devotes an entire volume to "dealing with the problem of bridging the gap between the single phonological/orthographic form and the many different possible interpretations associated with this form," which Degand (2009) describes as a "hot" topic in language study. Furthermore, the relevance of this question is not only acknowledged by those adopting a particular approach to language. Language researchers from every theoretical perspective are actively attempting to answer this question from many different angles (see for example, the overview in Fischer 2006:13–20). This question is also extremely relevant in the study of the language of the Hebrew Bible (see for example, Van Hecke 2011:265). Note that I will generally use polysemy in the following discussion to refer to semantic variation within a particular word class (e.g. temporal and causal adverbial connective). Polyfunctionality refers to variation in a form's usage that extends across word classes (e.g. preposition, complementizer, adverbial connective, etc.). However, sometimes I use polysemy more broadly for both.

causal connective in the examples above and that any differences are entirely attributable to context. It will also not do to simply list the different meanings and syntactic properties of each use. Rather, the explanation for the varied syntax and semantics of *as* in English lies in its diachronic development through various processes of grammaticalization and subjectification (also called subjectivization) that have resulted in its synchronic polysemy and prototypicality arrangement. For example, Kortmann (1997:175–81) observes that similarity type words (which he labels as modal) are common inputs that develop into temporal adverbial subordinators. And in turn, temporal subordinators are common inputs for causal subordinators/coordinators. Through processes of morphosyntactic and semantic extension, certain word classes in certain semantic networks (e.g. modal, temporal, locative, etc.) have a cognitively motivated propensity to develop other meanings (e.g. modal > temporal > causal) and develop into other word classes with a distinct semantic-syntactic profile (e.g. noun > preposition > conjunction). Yet, as in the case of *as*, these senses may all be simultaneously preserved and available for use synchronically. On the other hand, other semantic-syntactic possibilities may have been lost in the process of grammaticalization. For example, as reported by Haspelmath & Buchholz (1998:293), *as* comes from an originally demonstrative-based element *swá* from which we get *so* in Present Day English. As they explain, "Later *all* was added to *swá* to reinforce it, and *all swá* was later reduced gradually: *all swá > also > alse > als > as*." However, there is no longer semantic overlap between *as* on the one hand, and *so* or *all so* on the other, despite their converging diachronic origins. Furthermore, extension may happen at different speeds and older uses may have greater or lesser tenacity resulting in more or less extensive polysemy networks. For example, temporal English *while* may invite a causal inference in some contexts, though this has not been fully semanticized. However, causation is the primary meaning of German *weil* which has lost its original temporal meaning (Hopper & Traugott 2003:91; cf. Kortmann 2001a:849).

The example of English *as* is especially similar to the situation with כי. Indeed, as observed in chapter 2 where I surveyed past research on כי, it is one of the most polysemous words in the Hebrew Bible. But, how can we account for this word as a coherent linguistic phenomenon used in natural, understandable language without on the one hand, collapsing all uses into a single, highly abstract meaning, or on the other hand, simply producing atomistic lists of meanings that may describe usage, but do not provide an explanation for its polysemy? In this

chapter, I will sketch an outline of well-attested processes of grammaticalization observed crosslinguistically in words like כי as an answer to these lingering questions. Not only has this perspective proved fruitful for the analysis of a huge number of linguistic phenomena (see Hopper & Traugott 2003 for details), it is based on empirical observation of an astonishingly large and constantly growing number of genetically and geographically distinct languages. And, fortunately for the present study of כי as a primarily clausal connective, "adverbial conjunctions…form if not the largest then certainly the best-known and best-researched subclass" (Kortmann 2001a:842). The significance of this is that the attested patterns of change are not idiosyncratic, but cognitively motivated and crosslinguistically applicable. The basic reason for this is that, in the process of grammaticalization, "the meanings will always be derivable from the original lexical meaning by either metaphorical or conceptual metonymic inferencing. *Therefore meaning changes in grammaticalization are not arbitrary*" (Hopper & Traugott 2003:94–95, emphasis mine). Thus, these paths of change are crosslinguistically applicable because they are cognitively motivated and reflect common constraints and tendencies of human conceptualization (Traugott & Trousdale 2010:32; cf. Aitchison 2003:736). Furthermore, while certainly involving theorizing, the gradual change posited by grammaticalization theory is directly observable in written corpora that span centuries and even millennia in the case of languages with a very long literary history (e.g. Akkadian, Greek, etc.). Thus, comparing the various lists of putative functions of כי to crosslinguistically pervasive polysemies and grammaticalization paths will afford an additional step of corroboration that helps to check the legitimacy of particular uses against typological plausibility.

In the following, I will first present an overview of the process of grammaticalization in natural language change including the major processes that drive change, the gradualness of change resulting in synchronic polysemy, the unidirectionality of change, and entrenchment as a mechanism for internally arranging these complex polysemy networks. Next, I will consider the development and internal organization of causal discourse connectives, proposing the process of subjectification as the primary driving force for semantic and syntactic variation within the semantic domain of causation and the syntactic word class of conjunction. Finally, I will look more broadly at grammaticalization processes observed in adverbial subordinators that establish common paths of diachronic change across semantic domains and grammatical word classes resulting in synchronic polysemy and polyfunctionality. Based on the synchronic implications of

these principles of language change, I will propose in Part Three a synchronic prototypicality arrangement of the polysemous network of כי's usage profile in the Hebrew Bible.

6.1   An overview of grammaticalization theory

Grammaticalization is a rich field that can be traced back to the early 20th century and the pioneering work of Antoine Meillet ([1912] 1982) who coined the term in an article entitled "*L'évolution des formes grammaticales*." However, according to Narrog & Heine (2011:1), "…it is almost as old as linguistics…" In fact, Chappell & Peyraube (2011:786) report that a recognition of the principles of grammaticalization can be found at least as early as the 14th-century Chinese scholar Zhou Boqi who said that "today's empty [i.e. grammatical] words are all former full [i.e. lexical] words," a basic linguistic division of Chinese still in use today.[101] However, it was the textbooks of Heine *et al*. (1991) and Hopper & Traugott (1993) that "cemented the status of grammaticalization as an independent field of study within linguistics" (Narrog & Heine 2011:1). According to Hopper & Traugott (2003:1), grammaticalization is "that part of the study of language change that is concerned with such questions as how lexical items and constructions come in certain linguistic contexts to serve grammatical functions or how grammatical items develop new grammatical functions." This definition highlights change in function. Grammaticalization also has an affect on morphosyntactic form. Namely, grammaticalization is also defined as the process whereby "the parts of a constructional schema come to have stronger internal dependencies" (Kiparsky 2012:18), for example, phonological reduction. These processes go hand in hand. As Bybee (2010:31) notes, "As grammaticalization takes place a number of changes accrue to the new construction: phonetic reduction (as *going to* becomes *gonna*), and change in meanings and inferences, which expand the contexts of use of the new construction."

These form and function aspects of grammaticalization have a clear diachronic focus, since a key element in this research program is the observation of change over time. However, while such a perspective has been developing since the early 20th century, a dominant diachronic perspective on language has confined it to certain sub-disciplines in which change is of central

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[101] As reported by Van der Auwera *et al*. (2015:635), "Christian Lehmann (1995:1) traces the study of *avant la lettre* grammaticalization back to the French philosopher Condillac (*Essai sur l'origine des connaissances humaines*, 1746) and Lehmann further assigns major roles to Wilhelm von Humboldt, Franz Bopp, and Georg von der Gabelentz and, in more general terms, to 19th century typology and Indo-European historical linguistics."

importance, such as Indo-European linguistics (Hopper 1996:218). This has led to what Lehmann referred to as "amnesia" about grammaticalization in broader language research (Dahl 2001:91, citing Lehmann 1982:203–18) that has persisted in contemporary linguistics (Hopper & Traugott 2003:25; cf. Winters 2010). Seemingly counterintuitive, this amnesia about diachronic change has led to deficiencies in synchronic descriptions of language, since grammaticalization has crucial implications for synchrony—namely, polysemy and prototype organization. I will now briefly describe some of the principle mechanisms that drive grammaticalization through gradual, cognitively motivated change. I will then highlight the synchronic implications of these processes and their importance for an analysis of כי in the Hebrew Bible.

6.1.1   Major processes of change: Reanalysis and analogy

The main processes of grammaticalization can be summarized as reanalysis and analogy, with their respective mechanisms, metonymy and metaphor (Hopper & Traugott 2003:98; Traugott 2011; cf. Kortmann 1997:21; Esseesy 2010:52–68). According to Hopper & Traugott (2003:50), reanalysis is the process whereby "…the hearer understands a form to have a structure and a meaning that are different from those of the speaker, as when [*Hamburg*] + [*er*] 'item (of food) from Hamburg' is heard as [*ham*] + [*burger*]. Sooner or later someone substitutes the word *cheese* or *beef* for *ham*," and crucially, "this substitution is merely the symptom of a change that has already occurred silently."[102] Thus, this is a reanalysis of both structure and meaning. In terms of semantics, reanalysis is associated with semanticization of pragmatic implicatures and invited inferences (Traugott 2011). Namely, what initially begins as a pragmatic implicature or inference in a particular context, through the process of entrenchment, becomes more and more associated with the form so that it is no longer merely a possible inference, but a more constrained code. Heine *et al*. (1991:65–97) call this "context-induced reinterpretation" which is an instance of metonymic extension in the process of reanalysis. That is, through repeated and entrenched association with a larger context, a form itself comes to stand for that context as a whole in a part-whole relation. In terms of syntax, "reanalysis involves a change in constituency,

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[102] While reanalysis does indeed occur in this manner, the phenomenon is not confined to hearer misinterpretation. As elaborated below (especially in section 6.3), reanalysis or reinterpretation is also the result of inferential processes that are often invited by the speaker. Thus, reanalysis in language is by no means one sided and confined to the hearer, but rather is a natural outworking of cooperative communication. Compare Traugott (2010:56) where she points out that the cooperative nature of (inter)subjectification and grammaticalization prevents us from seeing them as exclusively passive processes.

hierarchical structure, category labels, grammatical relations, and cohesion (type of boundary)" (Hopper & Traugott 2003:51). That is, change not only extends from one meaning to another within a particular word class or construction type. Change also happens across semantic and morphosyntactic categories.

Also important is Langacker's (1977:58) observation that in reanalysis, "change in the structure of an expression or class of expressions does not involve any immediate or intrinsic modification of its surface manifestation." Langacker notes that this may lead to overt surface changes, but that this is "the natural and expected result of functionally prior modifications in rules and underlying representations" (ibid). Hopper & Traugott (2003:52) explain: "In some contexts, two interpretations were possible, that is, there was at least the potential for ambiguity (also called 'opacity') that allowed for the structure to continue to be analyzed as before, and for a new analysis to be innovated, and then to coexist with the earlier analysis." Thus, reanalysis is not in and of itself overt. This is why the same form may have different meanings and perform different functions in what may superficially look like the same structure, as with "as" in (58)b–c above. This will be important when considering tokens of כי that may have more than one syntactic and semantic interpretation, since these are precisely the contexts in which reanalysis takes place.[103]

After reanalysis has occurred, analogy, or generalization, extends the reanalysis, which took place in specific contexts, to wider contexts.[104] As summarized by Hopper & Traugott (2003:64), "In essence reanalysis and analogy involve innovation along different axes. Reanalysis operates along the 'syntagmatic' axis of linear constituent structure. Analogy, by contrast, operates along the 'paradigmatic' axis of options at any one constituent node." For example, the well-known case of "going to" developing from a directional phrase to the future auxiliary "going to/gonna" becomes overt when it extends to contexts incompatible with the originally directional, purposive meaning, e.g. with a stative verb like "know" as (56) below (cf. Traugott 2011; Hopper & Traugott 2003:68–69). This is even more clear when we observe that

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[103] Evidence from a neural theory of language supports this account. Feldman (2006:199–212) points out that it is precisely the co-activation of concepts in contexts where they coincide that results in the production of extended meanings through new structural connections between the neural networks which constitute those previously separate concepts (due to the Hebbian learning principle that neurons which fire together, wire together, discussed in section 6.1.4 below). Feldman is specifically discussing metaphorical extension, which is one of the two main mechanisms of grammaticalization.

[104] To this may be added extension across speakers, spaces, and time. Additionally, it must be noted that analogy itself in some cases has been observed to drive language change (Traugott 2011).

the more grammaticalized form "gonna" (indicated by fusion and phonological reduction) is completely incompatible with a directional meaning, as in (57)b.

(56)   a. I am going to/gonna know the answer within the next hour.

(57)   a. I'm going to the store
        b. #I'm gonna the store.

"Going to" may have a directional meaning, a future meaning, both directional and future meanings simultaneously, or be ambiguous between the two. On the other hand, "gonna" is only compatible with a future meaning.

        Together, reanalysis and analogy form a cycle of language change. A well-known illustration of the cycle of reanalysis, analogy, and further reanalysis is the development of *pas* as a negator in French discussed in Hopper & Traugott (2003:65–66). They trace the process in six stages as follows.

I.   Negation was accomplished by placing the negative particle *ne* before the verb

II.   A verb of motion negated by *ne* could optionally be reinforced by the pseudo-object noun
        pas 'step' in the context of verbs of movement.

(58)   Il ne vas (pas).
        He not goes (step).
        'He doesn't go (a step).'

III.   The word *pas* was reanalyzed as a negator particle in a structure of the type *ne*
        Vmovement (*pas*).

IV.   *Pas* was extended analogically to new verbs having nothing to do with movement; i.e.,
        the structure was now *ne V* (*pas*):

(59)   Il ne sait pas.
        He not knows not.
        'He doesn't know.'

V.   The particle *pas* was reanalyzed as an obligatory concomitant of *ne* for general negation:
        ne V pas.

VI.   In the spoken vernacular, *pas* came to replace *ne* via two stages: (*ne*) *V pas* (reanalysis of
        ne as optional), *V pas* (reanalysis by loss of *ne*), resulting in:

110

(60) Il sait   pas.
       He knows not.
       'He doesn't know.'

Hopper & Traugott (2003:66) make several observations from this that are significant for understanding the process of language change: "In the case of the French negator *pas*, we would not know that reanalysis had taken place at stage III without the evidence of the working of generalization at stage IV. The reanalysis at stage VI would have not been possible without the generalization, since *pas* would have been too constrained by its original semantics of 'step.'"

Their first observation will be important as an indication of the entrenchment of a semantic extension along with frequency (discussed more in section 6.1.4 below). That is, along with frequency, analogical extension of a particular use of כי to more contexts will be used as an indication of its entrenchment and therefore semanticization as a genuine sense in the semantic potential of כי, rather than merely a pragmatic inference (though, of course these are simply two poles of a continuum with a fine gradient at their interface, cf. section 4.7 above). Implicit in their second observation is the fact that grammaticalization occurs gradually from one usage to a *conceptually similar* usage, and so on.[105] Yet, the further along this process continues, the more disparate and incompatible the usages at different stages will become from each other. Crucially, since multiple stages coexist (sometimes for very long periods), this gradual change necessarily results in synchronic polysemy.[106] Furthermore, the longer these polysemous networks develop (especially when multiple extensions persists and continue to undergo their own development), the more disparate will the senses be in the synchronic polysemy of even a single word. Such cases may result in extreme synchronic polysemy. It is to these implications for synchronic study that I now turn.

6.1.2   Gradual change and synchronic polysemy

A key implication of the process of grammaticalization described above is that it results in synchronic polysemy (cf. Esseesy 2010:51–52). As Geeraerts (2010:42) explains: "As a

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[105] Cf. Kortmann's (1997:17) observation that "…synchronically adjacent senses are also diachronically adjacent, such that senses which are the source of derivation in language synchrony will also be the historically prior ones in language diachrony."

[106] For example, Deutscher (2011) documents in Akkadian the gradual change over nearly two millennia of speech introducing clauses with *umma* into quotative markers.

consequence of the semantic changes it undergoes, a word acquires multiple meanings, and polysemy, as the situation resulting from such semantic shifts, is so to speak the natural condition of words. Theories of lexical semantics will therefore have to come to terms with polysemy…" Similarly, Traugott (2012:551) states: "…without polysemy one cannot account for the fine-grained step-by-step developments that are attested by detailed study of texts and contexts over time." While this may seem intuitively obvious, a resistance to polysemy still lingers in some circles. Thankfully, as linguistic research has slowly recovered from its above-mentioned "amnesia" about grammaticalization, "the larger framework of functional typology as it represents itself in the early 1990s has helped emancipate linguistics from more or less deeply entrenched (post-) Saussurean tenets," including the idea that "'for each linguistic form there is only one function or meaning'" (Kortmann 1997:14). Rather, synchronic polysemy and polyfunctionality are increasingly recognized as necessary results of gradual language change (Heine *et al*. 1991:260). As Maschler (2009:35) states in her study of Modern Hebrew discourse markers, "This, then, is a synchronic study of the grammaticization of discourse markers, a phenomenon studied so far mostly from the diachronic perspective." Likewise, the primary value of diachrony for the present study is not diachrony for its own sake, but as a tool to account for synchronic phenomena in a principled way. One key synchronic implication of diachronic change is polysemy within a category (e.g. causal connective) and polyfunctionality or heterosemy across categories (e.g. adposition, connective, complementizer, discussed further in section 6.3 below).

Hopper & Traugott (2003:124) call this synchronic effect "layering." As they explain, "The persistence of older forms and meaning alongside newer forms and meanings, whether derived by divergence from the same source or by renewal from different sources leads to an effect that can be called 'layering' or 'variability' at any one synchronic moment in time" (cf. Bybee *et al*. 1994:15–16). Thus, observation of layering captures the fact that multiple forms, some older and some newer, that perform similar and at times even indistinguishable functions will persist side-by-side. Layering also includes the observation of a single form that develops a polysemous and polyfunctional semantic potential within its synchronic range of use (Traugott 2010:38; cf. Bybee *et al*. 1994:300; Bybee 2003:150–151; Ramat & Mauri 2011). Labeling diachronic change as "gradualness" and synchronic polysemy/polyfunctionality as "gradience," Traugott & Trousdale (2010:21) note that functional and emergent approaches to grammar have

observed a direct (even if complex) relationship between the two. Furthermore, that diachronic change results in synchronic polysemy can be seen in the illustrations already discussed above in examples (58–63) with *as* and *going to*/*gonna* in English and *pas* in French. For example, *as* is polysemous within the category of clausal connective and can communicate a temporal or causal relation between clauses. But it is also polyfunctional, as it can also function as a preposition. *Pas* shows even more extreme polyfunctionality since it continues to be used as both a lexical noun "step" as well as a completely grammatical negator.

Gradual change resulting in polysemous sets can be visualized with the following schema (adapted from Hopper & Traugott 2003:49):

(61)   A > A/B > B (> B/C > C…)

This represents a situation where a form with a usage "A", in certain contexts may later come to entail or be reanalyzed as usage B.[107] That is, there are contexts where the usage is ambiguous between A or B, or entails both simultaneously. However, through analogy (generalization), usage B becomes extended to wider contexts, some even incompatible with A and therefore constituting the clear conventionalization of usage B.[108] Furthermore, usage B may itself become the locus of reanalysis for usage C, and so on, potentially resulting in a lattice-like, cascading network of uses. Thus, a more realistic representation of such complexity would be a cascading network, which will be approximated below in section 6.3 where I present a semantic map of adverbial clauses, with a focus on those uses most associated with כי. Crucially, usages A through C and on may all synchronically exist within a form's usage profile, resulting in polysemy (Hopper & Traugott 2003:52). Furthermore, rather than being theoretically problematic, the ambiguity resulting from gradual change and gradient polysemy is exactly what is predicted by such a usage-based model. As explained in Kortmann (1997:15): "To the functionalist, anomalies and inconsistencies are to be expected because he recognizes the existence of competing motivations, in particular, iconic and economic motivations" (quoting Haiman 1985:295). That is, a system in change will naturally be expected to exhibit fuzzy boundaries and resist neat, static categorization.

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[107] Depending on the granularity of analysis, the > symbol here may represent many smaller micro changes which accumulate to macro changes (Traugott & Trousdale 2010:23).

[108] In addition to new syntactic contexts, innovative uses also propagate at varying speeds through registers, genres, and other layers of language use.

It seems to be the neglect of precisely these synchronic implications of grammaticalization that has lead some researchers to overlook polysemy and polyfunctionality as an expected feature of natural language and instead to pursue problematic analyses in search of an invariant semantic core. For example, in his analysis of כי using Relevance Theory, Follingstad (2001:19) notes the importance of grammaticalization studies, but writes, "However, since the focus of the present analysis is on discovering synchronic function of כי in the text as it now stands for the purposes of Bible translation, these issues must be put aside for later study." Indeed, this may be why Follingstad falls into the camp which seeks to flatten out the meaning of כי to a single, highly abstract and semantically invariant core which is simply combined with pragmatic implicatures to produce various contextual meanings (see Follingstad 2001:45–46, 53). Follingstad (2001:72) explains, "The linguistic explanation of כי in chapters seven through nine deals with the boundary between the semantic function of the particle and its effects in different pragmatic settings."[109] A similar misstep is made when analyses assume that the putative original meaning of כי (e.g. deictic, emphatic, etc.) must be directly related and more or less perceivable in all its later uses. However, while nuances of a previous sense may persist within subsequent extensions, to insist that they must always persist is unwarranted and runs counter to the norm of language. As Aejmelaeus (1986:195) states regarding the uses of כי: "It is hardly probable that a conjunction, any more than a noun or a verb, should carry its etymology along in all of its several functions, although some scholars, particularly the ones supporting frequent application of the emphatic interpretation, seem to suppose so." The reason such models do not work is because they cannot accommodate the universal observation of gradual change resulting in polysemy.

What "invariant semantic" approaches seem to have in common (implicitly or explicitly) is a problematic "core + rules" model by which they attempt to reconcile variation of usage with a supposedly invariant semantic core. That is, a form's "semantics" is taken to be an invariant core that is directly combined in immediate online processing with various contextual rules to produce "pragmatic" usage in discourse. While ingenious, the attempted remedy of a "core + rules model" is ultimately irreconcilable with natural language change. I will give two reasons.

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[109] This radical divide between semantics and pragmatics is even more confusing in light of his (2001:351–354) later comments on the relationship between diachrony and synchrony. There he acknowledges, "Linguistically speaking, forcing a sharp dichotomy between the diachronic and synchronic aspects of language investigation may not be useful", and that "It is an obvious fact that languages change and are characterized by some degree of heterogeny, even to a degree at a particular synchronic picture in time" (ibid:351). If this is true, polysemy is the expected norm.

The first problem has to do with the supposedly impermeable semantic/pragmatic divide (compare section 4.7 above). This does not account for the directly observable process by which originally pragmatic extensions gradually become conventionalized and incorporated into a form's semantic potential. For example, concerning the grammaticalization of adverbial subordinators such as the developments of Simultaneity (or: concomitance) > Concession, Anteriority > Cause, or Posteriority > Preference, as illustrated in *while*, *since*, and *before* or *rather than* respectively, Kortmann (1997:17) points out that "many of these sematic changes can justly be viewed as the outcome of pragmatic inferencing, which in these cases has become conventionalized…"[110] Indeed, some erstwhile pragmatic inferences come to be the primary meaning of a form to the exclusion of its previous meaning that gave rise to the pragmatic inference in the first place. This is clear from German *weil,* which, as noted above, is primarily causal and has completely lost its originally temporal meaning. Simply put, impermeable and invariant semantic cores immune to change do not exist in natural language.

Secondly, because the process of change is gradual, according to the basic schema in example (64) above (not simply in a linear fashion but in a potentially cascading network), a sufficiently grammaticalized word whose extensions have themselves produced their own extensions, each becoming more and more conceptually and temporally distant from the diachronic origin, will have a range of meanings that cannot all be directly derivable from a single semantic core. By way of analogy, in a word morph game, the word "star" can be changed one letter at a time to create other words as follows: star ➔ soar ➔ boar ➔ boor ➔ book. Notice that there is a direct relationship between distance and similarity. While the "diachronic" origin was the word "star," it no longer shares any characters with "book." Gradual change makes it impossible for all words in the string to be directly derivable from a common core. This is because extensions do not only proceed from the diachronic origin, but extensions themselves become potential loci of reanalysis. According to Hopper & Traugott (2003:187), "Once a form has been recruited for a new function, it will itself be subject to new inferences from that function, and these new inferences will in turn permit further grammaticalization." Thus, meaning extensions of a form give rise to yet other extensions, which may become so conceptually distant from their diachronic origin that certain values in a form's semantic

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[110] See Ariel (2008) for an extensive treatment of the semantics/pragmatics interface that thoroughly illustrates their gradient nature and transition from inference (pragmatics) to code (grammar). Cf. Kempson (2012).

115

potential may no longer have any semantic overlap with its diachronic origin. In some cases, even uses within a form's synchronic profile may lack any conceptual overlap (e.g. verbal forms with both a preterite present and perfective past usage, see Andrason & Locatell 2016:70–76). Similarly, speaking of prototype theory, Janda (2015:136) observes, "The relationship of the center/prototype to the periphery cannot be described in terms of a core + rules model, because the entire category, complete with its structure, is something that exists rather than being continuously generated from the center." Haspelmath (2003:232) states it simply when he writes, "it is not a good strategy to look for one single central sense in all cases."

The picture becomes more complex when we realize that the development of meaning extensions does not necessarily entail the dying out of previous usage, but as already noted, they may exist simultaneously.[111] Yet, despite the added complexity of this more realistic view of language, "invariant semantic" approaches actually fare worse. As Kortmann (1997:18) points out, "All that is achieved thereby is a far more complicated, because very abstract, monosemic lexical entry (cf. also Cruse 1992:598), and secondly a shifting of the problem of identifying the appropriate meaning (or for that matter: function, reading, use) away from semantics to the context, that is to pragmatics." As Wierzbicka (1998:151) points out in her typological study of causatives in anticipation of objections to its complexity, "It is language itself that is immensely complex."[112] And once again, positing polysemy is not merely an exercise in armchair linguistics. Rather, as Kortmann (1997:19) further points out, "Crosslinguistic research on items with more than one meaning may of course also furnish important evidence in this respect: 'if many diverse languages independently have the same pattern of 'homonymy', then the meanings are closely related' (Croft 1990:166)." In other words, the fact that so many different languages have the same "homonyms" expressing the same groups of meanings synchronically and

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[111] For a detailed analysis of *léluka* in the Greek verbal system as an example of such a case, with many examples from other languages as well, see Andrason & Locatell (2016).

[112] Compare Glynn (2010:2) who writes: "The model of language proposed by Cognitive Linguistics is so completely simple that it places the emphasis squarely on method and data. Rather than simplifying the object of study by carving off its complexities with hypothetical modules of language structure, it lands the linguist in the midst of a chaotic phenomenon that is the nature of all socially structured systems." Further along, Glynn (2010:7) offers this historical note on the issue: "The seeming impossibility of scientifically describing such multidimensional complexity is what led Structuralism to treat language use separately, the *parole*, and what led Mentalism-Modularism to dismiss it entirely. However, for a non-modular semantically driven theory of language, the complexity of language use is the basis of grammar. Can such a broad-reaching understanding of meaning be operationalised scientifically? Lakoff attempts this through the notion of conceptual categorisation." Thus, he argues: "Cognitive Linguistics has freed linguistic research of complex theoretical models, the models that were designed to tie down and render the complexity of natural language simple enough to study rigorously" (Glynn 2010:8).

showing similar patterns of emergence diachronically strongly argues for polysemy rather than homonymy.

Taken together, diachronic change and synchronic polysemy as documented in grammaticalization studies offers strong reason to pursue a polysemic rather than monosemic approach to the wide variation of usage characteristic of כי. In discussing the viability of invariant meaning approaches, Bybee (2010:183) concludes that "the invariant meaning hypothesis… is incompatible with usage-based theory, exemplar modeling and the facts of grammaticalization, and further that many of the particular analyses proposed under this hypothesis are unworkable." Kortmann's (1997:18) summary of the unworkability of such approaches is apt:

> In other words, no approach guided by the axiom of isomorphism, be it the invariance hypothesis (Columbia school; e.g. Tobin 1990), the monosemy hypothesis (e.g. Ruhl 1989) or the "single-function-in-discourse" hypothesis (Relevance theory; e.g. Blakemore 1987 or Caron 1987), can by its very nature offer a fruitful theoretical paradigm for the present study or any study within the functional typological or cognitive semantic frameworks discussed so far. The reasons are obvious; from a historical perspective, this has been put in plain words by Bybee (1986:5): "If each morpheme has only one fixed, abstract meaning that forms a system with other morphemes, then there is neither motivation nor mechanism for the system to change." Apart from this fundamental methodological drawback, there is little advantage in eliminating polysemy other than cleansing the sterile ideal of semantic theory from the messy reality of natural language.

Simply put, if linguistic forms gradually change their meaning (as is directly documented in diachronic corpus studies), then there will necessarily be intermediate stages where multiple uses are contained within its usage profile.

Thus, the more empirically justified approach to natural language is to acknowledge the reality of polysemy and polyfunctionality as a necessarily, if complex, result of gradual language change. This frees us from the impossible task of directly connecting every synchronic use to some speculative and supposedly invariant semantic core. However, if polysemy is accepted, how can order be perceived in the midst of such complexity? As posed by Aejmelaeus (1986:193–194), "How was it at all possible that one particle could be used in so many different contexts? And how was it possible to distinguish among the various functions of כי in the original situations where Hebrew was spoken and understood by native speakers?" Fortunately, two further principles of language change—unidirectionality and entrenchment—help bring order to what at first may seem more like a hopelessly tangled web rather than an elegantly

117

structured network. According to prototype theory (see section 3.4), these polysemy networks, have a cognitively motivated structure. In terms of the complex networks of grammaticalization paths, unidirectionality allows researchers to posit a relative diachronic order of uses based on cognitively motivated and crosslinguistically pervasive paths, even from synchronic polysemy alone (cf. Haspelmath 2003:217–218). Furthermore, the polysemous networks resulting from these paths are neurally and psychologically structured according to prototypicality as mediated by entrenchment through frequency and productivity. Unidirectionality and entrenchment will be the topics of the next two subsections.

6.1.3   Unidirectionality and grammaticalization paths

Unidirectionality is the observation that language change proceeds along paths with a consistent directionality with few and/or disputed counter examples (Hopper & Traugott 2003:130–138). This conclusion "is the result of repeated observations about what does and does not seem to occur in languages throughout the world" (Bybee *et al*. 1994:12; cf. Esseesy 2010:69). Thus, we would expect to see such unidirectionality at every level of language. Indeed, as these crosslinguistic findings of grammaticalization point out, the (in)famous polysemy and polyfunctionality of כי is not unusual for such a small, old, and frequently occurring form.

From a synchronic perspective, the unidirectionality of grammaticalization gives a relative order to the otherwise messy polysemy and polyfunctionality of transitioning forms. As discussed above, in certain contexts, a form may be reanalyzed as a different, though conceptually similar use in the process of grammaticalization. This conceptual similarity or adjacency, seen in synchronic extensions resulting in polysemy, corresponds to the diachronic adjacency of uses in the history of a form's development. According to Kortmann (1997:17), "This may be called the Principle of Generativity and the corresponding method 'internal semantic reconstruction' (Traugott 1986:97): synchronically adjacent senses are also diachronically adjacent, such that senses which are the source of derivation in language synchrony will also be the historically prior ones in language diachrony." This means that synchronic polysemies should be arranged along crosslinguistically consistent paths of unidirectional language change. As Bybee *et al*. (1994:18) explain:

> Multiple uses, then, are not randomly distributed: given uses are associated only with certain others, sometimes uniquely, and from these associations we can construct diachronic developments… When enough cross-linguistic evidence has been

accumulated to establish possible sequences of developments, the notion 'possible grammaticization path' may be applied in reconstruction to distinguish retentions from source meanings from later developments on grammaticization paths… Like retained specificities, then, patterns of multiple uses in effect constitute fossil evidence and can thus serve as a diagnostic of earlier history.

Therefore, in providing us with the order of diachronically adjacent uses (that is the order in which uses emerge), crosslinguistically-attested paths of grammaticalization also tell us which uses are conceptually adjacent in a form's synchronic polysemy. Thus, even within synchronic usage, we are able to see which uses are more likely to be older (and perhaps losing ground in the form's usage profile) and which are more likely to be more recent innovations (and perhaps gaining ground in the form's usage profile).

Additionally, two further characteristics of unidirectionality in grammaticalization should be briefly mentioned. The first is the fact that in a chain of extended uses, not only is change unidirectional, but change also does not skip steps in the gradual process of change. This was briefly mentioned above regarding the grammaticalization of French *pas* as a negator. As pointed out by Haspelmath (2003:233), "diachronically a gram cannot arbitrarily 'jump' to a distant function, but must be extended step by step (or 'incrementally,' Croft, Shyldkrot, & Kemmer, 1987)." To use the word morph game analogy mentioned above, gradual change (one letter at a time) makes it impossible that the string star ➔ soar ➔ boar ➔ boor ➔ book could jump from "star" to "book," since they are completely dissimilar. Likewise, because grammaticalization proceeds by gradual extensions that are conceptually similar to their source, it does not "jump" stages. Indeed, it is the principled (rather than arbitrary) nature of these changes that results in crosslinguistically pervasive, and therefore heuristically valuable, grammaticalization paths.

Secondly, it is important to note that grammaticalization may proceed in one language at one speed but more quickly or slowly even in a related language for a cognate form. This makes comparative work on grammaticalization more complex. In an analysis of כי, it is therefore important when comparing cognate forms not to hastily conclude that they must share all, or even their most basic, uses. This is because one may have proceeded along the path of change more or less than the other resulting potentially overlapping, though not coextensive, polysemies (Carlier *et al*. 2012; Ramat & Mauri 2012:484).

The payoff of all of this for an analysis of כי is that, for well-known processes of grammaticalization, even such a messy and extreme case of polysemy and polyfunctionality can

119

be understood as a principally-structured set of uses arranged along a path of historically and conceptually adjacent uses with a conceptually motivated relationship to each other. Fortunately for those perplexed by כי, extensive crosslinguistic research has been undertaken on polysemous and polyfunctional connectives with similar profiles. The main results of this work will be covered in section 6.2 below where I will discuss the unidirectional path of subjectivization that internally structures the causal uses of כי. In section 6.3 I will present the network of paths connecting the use of כי as a causal connective to its other uses. For now, the point being made is that unidirectionality of change allows us to organize complex polysemies along grammaticalization paths that reveal historically adjacent uses diachronically and conceptually adjacent uses synchronically. Furthermore, not only are a form's uses ordered diachronically and conceptually related synchronically, they are also more or less "weighted" within a form's usage profile. This is referred to as entrenchment.

6.1.4   Frequency, entrenchment, and prototypicality

The frequency with which the uses of a form occur is important in quantitative corpus linguistics as a corollary of entrenchment within a form's semantic potential. As Hopper (1996:217) describes, "Some researchers have questioned the standard idea of a stable synchronic a priori grammar in which linguistic structure is distinct from discourse, and have sought to replace this with the idea of 'emergent grammar' in which repetitions of various kinds in discourse lead to perpetual structuration." Especially when dealing with complex polysemies, frequency offers a quantitative indication of the prototypicality structure of the various meanings within a form's usage profile by distinguishing the level of entrenchment between different uses. As Glynn (2010:6) summarizes, entrenchment "is an operationalisation of grammaticality… This operationalisation defines the phenomenon of grammar by showing how one may observe and measure it." And, according to Bybee (2003:153–154), grammaticalization itself is "the process of automatization of frequently occurring sequences of linguistic elements." While the precise relationship between frequency and prototypicality is hotly debated (see for example Glynn 2010:14–15; Schmid 2010), it is generally agreed that "Frequency—whether of non-linguistic experiences, linguistic forms, linguistic meanings, or form-meaning associations—will likely

120

contribute to cognitive entrenchment, which in turn will map onto cognitive salience and thence onto degrees of prototypicality" (Taylor 2015:567).[113]

Divjak & Caldwell-Harris (2015) have provided a recent treatment of the relationship between frequency and entrenchment that presents converging evidence from corpus-, psycho-, and neuro-linguistics which, properly qualified, argues that frequency is indeed an indication of entrenchment. They offer the following definition: "Within psycholinguistics and cognitive linguistics, frequency most often refers to the number of times a particular chunk of language (such as a phoneme, word, or phrase) occurs in a specified environment" (Divjak & Caldwell-Harris 2015:54). They note that frequency effects are observable in every linguistic domain investigated for them and all linguistic units are subject to frequency effects (e.g. ranging from simple to complex and lexical to grammatical). Divjak & Caldwell-Harris (2015:63) also report that researchers have found language processing to be extremely sensitive to frequency, even below 6 occurrences per million words. This suggests that the threshold at which frequency affects the perception of language users is very low and that even low frequency tokens play an important role in shaping the usage profile of a given form.

Furthermore, entrenchment is scalar. As Langacker (2008:38) explains, "since entrenchment and conventionalization are inherently matters of degree, there is no discrete boundary between senses which have and which lack the status of established units. We find instead a gradation leading from novel interpretations, through incipient senses, to established linguistic meanings." That is, all things being equal, each occurrence of a certain usage progressively contributes to its entrenchment, and disuse erodes it. As elaborated in Divjak & Caldwell-Harris (2015:60, quoting Langacker 1987:59),

> Every use of a structure has a positive impact on its degree of entrenchment, whereas extended periods of disuse have a negative impact. With repeated use, a novel structure becomes progressively entrenched to the point of becoming a unit; moreover, units are variably entrenched depending on the frequency of their occurrence.

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[113] Even as one who urges caution in seeing a direct relation between frequency and entrenchment, Schmid (2010:115–116) acknowledges, "This seems highly convincing, not least in view of the considerable body of evidence from psycholinguistic experiments suggesting that frequency is one major determinant of the ease and speed of lexical access and retrieval, alongside recency of mention in discourse (cf., e.g., Sandra 1994: 30–31, Schmid 2008, Knobel, Finkbeiner and Caramazza 2008). As speed of access in, and retrieval from, the mental lexicon is the closest behavioural correlate to routinization, this indeed supports the idea that frequency and entrenchment co-vary." Schmid (2010:125) also acknowledges that his apprehension is "in spite of the indisputable advantages of quantitative methods such as their predictive power, the possibility to falsify models by means of repeat analysis and their enormous capacity when it comes to coming to grips with highly multivariate datasets."

This is crucial for the analysis of a highly polysemous form like כי. Differentiating between different uses of כי in terms of entrenchment as indicated by frequency allows us to organize its semantic and functional potential according to a continuum of prototypicality. This prevents us from reducing the meaning of a word like כי merely to an atomistic taxonomy of uses with little or no differentiation in terms of centrality within the form's overall profile.

The last point on unitization from the above quote—that novel structures may eventually be reanalyzed as a unit—is important in the analysis of collocations such as והיה/ויהי כי, כי-על-כן, כי-אם, and אף כי (discussed in sections 8.1.1, 9.1.1, 9.1.2.4, and 9.2.1.2 respectively). As Bybee (2003:603) characterizes it, grammaticalization is "the process by which a frequently used sequence of words or morphemes becomes automated as a single processing unit." Thus, while certain cases of the collocation כי אם may be analyzable into its component parts (e.g. Ex 9:2), highly unitized collocations are no longer decompositional (e.g. Ps 1:2, 4) (cf. Conklin 2011:67). In yet other cases, it may be ambiguous whether to take a collocation as a single unit or two separate units (e.g. 2 Chron 25:8).

This relationship between frequency and entrenchment also has support from neurological investigations of language, especially from what is known about Hebbian learning. The Canadian psychologist Donald Hebb stated: "When an axon of cell A is near enough to excite a cell B and repeatedly or persistently takes part in firing it, some growth process or metabolic change takes place in one or both cells such that A's efficiency, as one of the cells firing B, is increased." (Hebb, 1949:62, cited in Ahlsén 2006:172). More concisely, "neurons that fire together wire together" (Divjak & Caldwell-Harris 2015:62). In other words, since language schematically stands for richer mental representations that correspond to neural activation networks, the more a particular form is used with a particular conceptualization, the more strongly it will be synaptically integrated into that activation network and condition future uses of and encounters with the form (cf. Feldman 2006:78–82, 166, 177, 213–224, 250–309). This is crucial in the process by which more pragmatic and contextually derived meanings become progressively semanticized (Geeraerts 2016:239). Thus, the process of entrenchment results both in the promotion of certain senses from more pragmatic to more semantic status, and also progressively strengthens the semantic status of certain uses and contributes to the organization of polysemy by weighting different uses.

122

So, all things being equal, the more frequently occurring use will be most strongly associated with a form in its semantic potential. For highly polysemous constructions, this will result in a weighted network of uses that are more or less prototypical. However, in language all things are rarely equal. Much of the debate surrounding the usefulness of frequency counts in corpus linguistics arises from a call to account for other factors that impact entrenchment (see Schmid 2010; Glynn 2010; Divjak & Caldwell-Harris 2015). Basically, certain uses may be more context-bound than others and restricted to a particular contextual feature (be it syntactic, sociolinguistic, stylistic, etc.). This restriction mitigates the impact of its frequency on the prototypicality of that usage.[114]

Thus, Divjak & Caldwell-Harris (2015) are careful to point out that bare frequency in itself does not necessarily correlate with entrenchment. Rather, the diversity of features with which a usage appears is crucial for entrenchment. As Glynn (2010:17) explains, "It is not the frequency *per se* of linguistic features that is of interest, but what this says about usage, the relative association of forms and meanings in context" (cf. Divjak & Caldwell-Harris 2015:59). Thus, what is needed is a measurement of relative frequencies that are weighted according to their occurrence with a variety of features. Divjak & Caldwell-Harris (2015:60) call this "contextualized frequency" and conclude that, "Contextualized frequency yields better predictions than isolated frequencies, even for low frequency words, and this can be expected: the brain makes use of learned contextual regularities."[115]

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[114] An example of this is the notoriously problematic present use of the perfect tense-form in Ancient Greek. The high frequency of this present use has led some to question the centrality of the present perfect use in the form's usage profile. However, the present use is highly restricted to discursive text and only a few lexical verbs (mainly οἶδα) that are crosslinguistically known to develop a present sense usage, while the present perfect sense is ubiquitous (e.g. in genre, literary style, and inflection with a wide semantic range of lexical verbs). With this in mind, it becomes apparent that the greater contextual restriction of the present use mitigates its weight in the tense-form's semantic potential as a whole (Andrason & Locatell 2016:70–76).

[115] Contextual frequency used in this way seems to overlap with what is called token and type frequency in the pioneering work of Joan Bybee (see Bybee 2003:604–605; and Divjak & Caldwell-Harris 2015:54–55). Roughly speaking, token frequency is the number of times a particular form occurs (e.g. the past tense morpheme "-ew" as in "threw"), while type frequency refers to the number of different contexts in which it occurs (e.g. the number of lexical verbs that take "-ew" as a past tense marker). While type frequency often refers to more schematic construction types (like constituent position within a clause), it can also refer more broadly to the generalization of contexts within which a particular form or usage occurs. Thus, the former measures bare frequency, while the latter measures generalization across contexts. It is the combination of these in "contextual frequency" that most accurately indicates level of entrenchment and prototypicality of a given usage within a form's semantic potential. This also seems to overlap with what Glynn (2010:5–8) refers to as the operationalization of grammar (via entrenchment/frequency) and the operationalization of meaning (via categorization/co-occurrence). Yet another overlapping term with "contextual frequency" is what Schmid (2010:117–119) calls "relative frequency" and even more specifically "reliance" which he defines as "the relative frequency of tokens of a noun type in a construction

In addition to contextual frequency, different usages have different levels of salience. When discussing different types of prototypicality, Feldman (2006:78, 99) notes that more important or salient examples have a greater impact upon learning. According to Divjak & Caldwell-Harris (2015:68), "Frequency is an important contributor, but the relevance of a stimulus for learners' goals may be more important than frequency per se." In the case of the Hebrew Bible, I take it as relatively uncontroversial that the usages which appear there were highly relevant for its audience and therefore each token in my corpus can generally be assumed to enjoy a significant level of salience.

An important implication of the above discussion is that the prototypical use(s) of a certain form will not necessarily be the most conceptually basic or most original. Rather, synchronic prototypicality will coincide with the use(s) most associated with the form in question, that is, the use(s) considered the best fit for the form. Thus, the more prototypical uses are the more entrenched uses, entrenchment is the result of Hebbian learning, and Hebbian learning is the result of salient contextual frequency. All of this fits well with the mechanisms of grammaticalization discussed above. Specifically, analogy is "…generalization through patterns of usage, as reflected by the frequency with which tokens of these structures may occur across time… Quantitative analyses can be done taking various variables into account, such as spread across communities, or styles, or genres" (Hopper & Traugott 2003:67). Bybee (2003:602) goes even further and maintains:

> This increase [in frequency] comes about as a result of an increase in the number and types of contexts in which the gram is appropriate. Frequency is not just a result of grammaticization, it is also a primary contributor to the process, an active force in instigating the changes that occur in grammaticization.

Thus, there is a clear link between frequency and grammaticalization (and therefore level of entrenchment/prototypicality).

The basic role of frequency in entrenchment can be represented by the following schema in Figure 6.1 from Ramat & Mauri (2012:490, cf. Heine 2003:579, 586–88). Ramat & Mauri (2012) applied this to the development of adversatives/contrastives (also a function within the usage profile of כי). However, it is a general grammaticalization phenomenon. It should also be

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vis-à-vis tokens of the same noun type in other constructions." That is, the "reliance" a particular form has on a particular context. This sort of relative frequency has also been used in the corpus study of causal connectives conducted by Stukker *et al.* (2009) and corroborated the relationship between relative frequency and prototypicality.

noted that this is a simplified scenario in which an older use gradually gives way to a newer one. As noted throughout this discussion, multiple diverging and even conceptually very different uses arising from cascading extensions may continue to exist synchronically for a long time. The crucial point is that increase in what has been called contextual frequency will be the key factor for identifying the different uses within כי's synchronic profile and assigning different levels of prototypicality to each.

Figure 6.1 A four-stage model for the development of adversative connectives

1. Initial stage

2. Pragmatic inference and successive form-function reanalysis

3. Syntactic and semantic specialization

4. Extension and independence from co-textual constraints

Contexts with the original value are highly frequent

Contexts compatible with both the original and the new value reach a peak frequency. Contexts with the original value are still very frequent.

Contexts with the original value and contexts with the new value coexist in complementary syntactic distribution. Contexts compatible with both values may become less frequent

Contexts with the new value are extremely frequent. The other two types of contexts are rare or not attested anymore

In light of this discussion, it is important not to simply count bare frequency of uses, but to combine frequency with something like what is called a usage-feature or behavioral profile analysis that combines frequency with distribution across various features. The behavioral profile approach was used, for example, by Gries (2006) to explain the polysemy of the verb *run* which was then replicated in Glynn (2014). This approach usually involves the following basic components: 1) collecting tokens of data from a corpus, 2) annotating them for distributional features, 3) converting the annotated data into percentages of cases that exhibit the various features, and 4) presenting a statistical analysis of the results (Gries 2015:478–479; cf. Gries & Divjak 2010 and Schmid 2010:103–104). The two criteria in Gries & Divjak's (2010:339–340) discussion of a behavioral profile analysis of polysemy used to determine prototypicality are "the most frequent sense and the formally least marked or constrained sense" where "least marked or constrained" means the sense that occurs in the widest constructional contexts. Taking into account the distribution of uses over various features allows us to assign a more accurate level of entrenchment to a given use within a form's semantic potential.

125

I have attempted to account for these effects of contextual frequency in this study by labeling various features for each token of כי in my corpus and weighting each use by considering its frequency and generalization across contexts, which I discuss further in section 7.3. The main features used in this study for a behavioral profile of כי are those which were found to be most important in past analyses of כי as discussed in chapter 2 (e.g. clause order, כי clause verb type), as well as those found to be most crosslinguistically significant for the analysis of words like כי as discussed in Part Two. The details of representative examples, as well as language-specific considerations, will be discussed in Part Three.

6.1.5   Summary so far

The basic application of these observations for the study of כי is that older uses of כי along with their syntactic properties (e.g. deictic or modal preposition "as/like") were extended via conceptual metonymy to conceptually similar senses, word classes, and the attendant syntactic profiles of these reanalyzed uses (e.g. temporal adverbial subordinator, etc.). This reanalysis initially happened in more limited contexts where the usage of כי was ambiguous between an earlier, established semantic-syntactic profile and a newer, reanalyzed one. However, through the process of analogy (generalization), a newly reanalyzed sense can be extended beyond the original context in which the reanalysis occurred. Crucially, the earlier and later usages may co-exist simultaneously, even for centuries. For example, Evers-Vermeul (2005:160) reports a high level of stability in the usage profiles of four Dutch causal connectives over a period of 800 years. Earlier usage is not suddenly replaced by extended uses and extended uses do not immediately spread to all varieties of a language (e.g. modes, genres, sociolinguistic registers, etc.). This necessarily results in synchronic polysemy networks. While this polysemy can be puzzling from a purely synchronic perspective, because these changes are crosslinguistically unidirectional, we can posit diachronically ordered paths from synchronic polysemy. This does not yield a semantic-syntactic profile of כי that simply consists of an atomistic list of equally important uses that may be encountered with equal probability. Rather, each use in this polysemous network is more or less prominent in the profile of כי based on its level of entrenchment, which is indicated by a combination of frequency and productivity in multiple contexts. The result is a well-structured, if internally complex, polysemy network that is cognitively motivated, crosslinguistically persistent, and empirically observable. As Kortmann

(1997:23) assures us, "Networks of interclausal relations … can be illuminated both by polysemy patterns of adverbial subordinators in language synchrony and by paths of semantic change in language history." In the following sections, I will attempt to show how the perspectives outlined above may be applied to an analysis of כי. I will first look at the polysemy internal to the use of causal connectives (the topic of chapters 4 and 5) and offer an account of those uses according to the process of subjectification. I will then turn to the polysemy of adverbial connectives in general and sketch a semantic map of uses that are connected by well-document grammaticalization paths that may be fruitfully employed to get closer to answering the riddle of כי's extreme polysemy.

6.2   Subjectification of causal connectives

The notion of subjectivity has already been discussed throughout Part Two. It was introduced in chapter 3 and then applied to the semantics and syntax of causal connectives in chapters 4 and 5, respectively. While this replaced discrete categories with more realistic continua and offered a cognitively motivated explanation of the relationship between the semantics and syntax of causal connectives, I have not yet discussed the reason why a form like כי would occupy a certain segment on the continua of semantic and syntactic features or what would cause it to move along the continua in one direction or another. With the previous discussions of subjectivity in mind, the various levels of subjectivity reflected in the previously established semantic and syntactic categories can be placed along a path of subjectification. That is, the subjectivity scale presented in section 3.3.3 has a diachronic directionality. While not identical to grammaticalization (e.g. lexical words can also undergo subjectification and still remain lexical), "Nevertheless, there is a strong correlation between grammaticalization and subjectification…" (Traugott 2010:38). As a unidirectional path of change, subjectification allows us to organize the polysemy of כי as a causal connective in both its semantic (from content to non-content uses) and syntactic dimensions (from more subordinate to more coordinate).

Traugott (2010:29) has summarized the basic idea in these words: "The hypothesis is that subjectification and intersubjectification involve the reanalysis of pragmatic meanings as coded semantic meanings in the context of speaker-hearer negotiation of meaning." While subjectification is the shift in focus away from the external object of conceptualization and onto the speaker in the ground of communication, intersubjectification proceeds from a focus on the

127

speaker to a greater focus on the speaker-addressee interaction. This leads Traugott (2010:34–35) to posit the following cline:

(62)   non-/less subjective > subjective > intersubjective

An often-cited example of this is the above-mentioned change of *going to X* from the idea of movement (e.g. "I am going to London") to the idea of intention (e.g. "I am going to/gonna be sick"). Thus, through invited inference, an original sense in the content domain is reinterpreted in terms of greater speaker involvement and moves into more subjective domains. Traugott (2010:55) hypothesizes that this subjectification is motivated by "the subjectivity of the speech event." That is, the very nature of exchange between interlocutors along with the complex implications and inferences that are essential to communication is what initially prompts the pragmatic strengthening of erstwhile objective utterances into subjective ones (Traugott 1995a:46). Furthermore, like crosslinguistically well-attested grammaticalization paths, the ubiquity and unidirectionality of this cline have tremendous empirical support (Traugott 2010:34–35). Thus, words or constructions will move along this cline from objectivity to (inter)subjectivity through the progressive entrenchment and semanticization of erstwhile invited inferences (cf. Verhagen 2000, 2005).

As with grammaticalization, the gradual process of subjectification also results in synchronic polysemy (Traugott 2010:32). I will revisit the intersubjective segment of the cline latter in discussing the development of כי into a discourse marker used to negotiate speaker-addressee interaction in section 9.2.2. The point being made for now is that, when it comes to כי as a causal connective, its synchronic polysemy is manifested in domains of use which can be placed along a cline from less to more subjective. Semantically, subjectification would proceed along the following domains within which causal connectives may function:

(63)   content nonvolitional > content volitional > Non-Content (Speech act, epistemic,
                                                                            metalinguistic)

Thus, a causal connective undergoing subjectification may be reinterpreted as progressively more subjective along this cline of domains of use.

Recalling the discussion in chapter 5, the process of subjectification can have syntactic affects and progressively transform a subordinate conjunction to a coordinate conjunction through a continuum with several intermediate stages. This is overtly observable in several syntactic phenomena with which a connective may be compatible, such as integration and main clause phenomena. This results in the following syntactic cline, corresponding to the semantic ones given in (62) and (63) above.

(64)   bound subordination > free subordination > modal subordination > coordination

Thus, in the process of subjectification, semantic changes result in these corresponding syntactic manifestations.

These semantic and syntactic clines were integrated in Table 5.2 in terms of synchrony. The point being made here is that these clines are also ordered in terms of diachrony and can therefore tell us the order in which a form may incorporate new uses. Once again, this diachronic perspective has important synchronic implications by indicating which semantic and syntactic traits are retentions and which are extensions.

A widely studied case of subjectification, which illustrates the phenomenon with causal connectives, is once again the development in spoken German of *weil* with main clause (non-verb final) word order.[116] Hopper & Traugott (2003:210–211) point out that, "In standard German these clauses have verb-final word order, are non-assertive, and typically occur in the same intonation contour as the main clause." Thus, they are considered subordinate. However, in spoken German, there has been a rise (at least since the 1980s) in the use of *weil* with main clause word order and within a separate intonation contour from the primary clause. And, as expected, these syntactic changes coincide with semantic reinterpretations from more objective, to more subjective readings. Hopper & Traugott (2003:211) cite the following examples:

(65)   *auf der andern Seite war   der Kielmann vielleicht besser weil   der*
        on the other   hand might the Kielmann perhaps   better because he

        gleich ein Röntgengerät   da   hat.
        right   an X:ray-machine there has

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[116] The process of subjectification has also been observed for adverbial connectives in general (Kortmann 1997:31).

"On the other hand Kielmann might be better because he has an X-ray machine right there."

(66)   *Der hat   sicher wieder gesoffen.   Weil   sie läuft total*
       he   must surely again been:drinking. Because she goes totally

       deprimiert durch   die Gegend.
       depressed through the neighborhood.

"He must have been drinking again because she walks around looking totally depressed."

Hopper & Traugott (2003:211) continue, "Gunther points out that non-subordinate clause (paratactic) constructions like [66] involve either epistemic or 'speech act' meanings in the sense of Sweetser (1990)" and therefore "the newer meanings and word orders conform to regularly occurring unidirectional semantic and pragmatic changes… [66] more subjective than [65], that is, they are more firmly based in the speaker's subjective assessment of the situation."

A similar path has been traveled by French *car*. Evers-Vermeul *et al*. (2011:457) observe that an increase in subjectivity (that is a rise in more subjective domains of use) was accompanied by syntactic changes. Specifically, "*car* changes from a complex subordinating conjunction to a simple coordinating conjunction, resulting in the loss of *car*'s ability to occur in preposed connective clauses." Thus, keeping in mind the qualifications made concerning these topics so far, the following path of subjectification can be used for an analysis of the polysemy of causal כי both semantically and syntactically.

Figure 6.2 Subjectification of causal connectives[117]

Semantics	Content nonvolitional > Content volitional > Non-content
	Epistemic / Speech-act / Metalinguistic
Syntax	Bound subordination > Free subordination > Modal subordination > Coordination

Some researchers have also proposed an ordering according to subjectivity within non-content domains of use (e.g. Evers-Vermeul 2005:150–152; Esseesy 2010:284). Others have lumped them together on the subjective pole of the cline into a subjective, non-content category (e.g. Sanders & Spooren 2015:68). While a principled ordering internal to non-content uses may be

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[117] Note again that just as in Figure 5.2 above, this figure is not meant to suggest that each portion of the subjectification cline is meant to correspond exactly to a particular portion of the cline of syntactic change.

possible (speech-act and metalinguistic uses perhaps profile the ground of communication slightly more than epistemic uses, though epistemic uses do so as well), I do not explore that level of granularity other than the comments that have already been made on the scale of subjectivity in chapters 3 and 4. Thus, the organization of כי's polysemy within its use as a causal connective, whether more or less subjective semantically and more or less coordinating syntactically, will be understood in terms of these directional clines in conjunction with relative/contextual frequency as an indication of entrenchment. Representative examples from my corpus of כי as a causal connective along these continua will be considered in chapter 8.

6.3 Grammaticalization and clausal connectives

Having laid out a model for a more microscopic organization of the various inter-categorical uses of כי as a causal connective, the purpose of this section is to propose a means for a more macroscopic organization of its other adverbial connective uses (e.g. temporal, conditional, etc.) and of its extra-categorical uses beyond that of an adverbial connective (e.g. complementizer, discourse marker). As in the discussion of subjectification above, this will be done by positing diachronic grammaticalization paths, which reveal the conceptual connections in synchrony polysemy. And, as discussed in section 6.1.4, these polysemous uses are not only connected conceptually, but are also organized according to prototypicality as mediated by relative or contextual frequency resulting in entrenchment.

This section closely follows Kortmann's (1997) foundational study of adverbial subordination covering 50 living languages and three extinct languages. From these 53 languages, 2,043 clausal connectives were analyzed in the database. The data represented covers a maximum time-depth of 2,500 years, though only the languages with a long literary tradition (e.g. Greek, Gothic, Latin, English) will span a substantial amount of that depth. The picture that clearly emerges from this data thoroughly dispenses with the view that "Polysemy is an idiosyncratic fact about languages, with no parallels or hardly any parallels across languages" (Kortmann 1997:137–138; cf. Tyler & Evans 2001; Gries 2015:477–478). The network of grammaticalization paths found in Kortmann's study will serve heuristically as my point of departure for identifying the conceptual relations between the various uses of כי and the potential diachronic changes that resulted in its synchronic polysemy. In chapter 9, this network of grammaticalization paths will then be compared to actual uses of כי found in my corpus and

identified in past research (especially in standard grammars and lexica) in order to propose typologically plausible diachronic paths that led to its particular pattern of synchronic polysemy.

6.3.1 Intersecting category continua

We can begin by observing the categories with which words like כי are related. The figure below is adapted from Kortmann (1997:59) and shows the most important category continua that intersect with adverbial subordinators.

Figure 6.3 Category continua intersecting with adverbial connectives
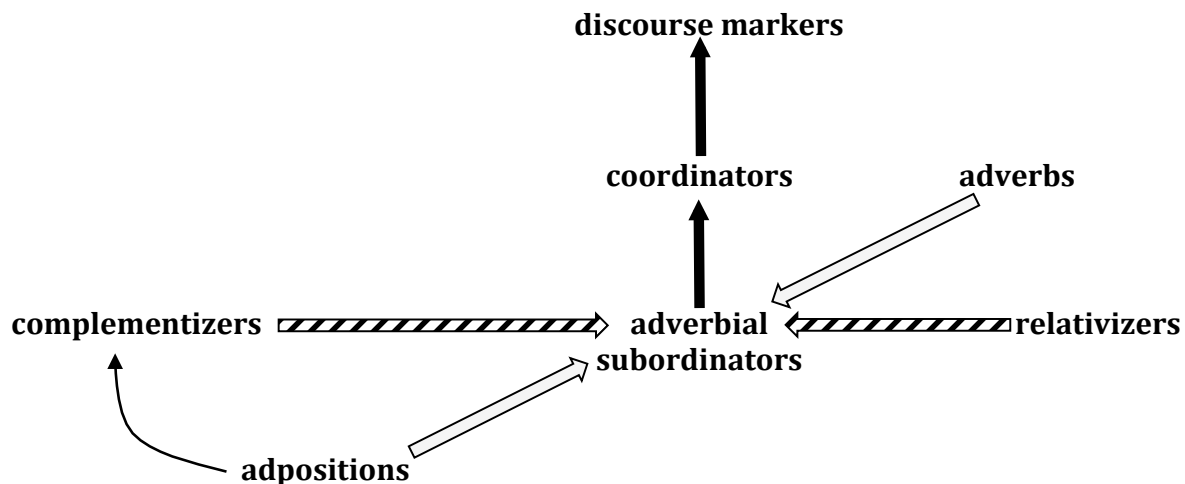
As depicted here, adverbial subordinators are conceptually and diachronically related to many other word categories and may incorporate several into their synchronic usage profile. For example, Kortmann (1997:58–59) points to English *for* as an illustration of such intersections as seen in the following utterances (cf. Kortmann 1998a:458).

(67)   a. John did not reply, for he knew he was wrong.
         b. We are hoping for John to improve himself.
         c. The present was for Mary.

We can see here that *for* may function as a causal connective as in (70a), a complementizer as in (70b), or a preposition as in (70c). This helps situate the subordination-coordination continuum discussed in chapter 5 and the potential pressure of subjectification to move from less to more

coordinate syntax discussed in section 6.3 within a larger network of related categories. Just as variation of a form's meaning within a single category is termed polysemy (e.g. the various uses of כי as a causal or some other clausal connective), multiple category membership is termed heterosemy and is ubiquitous in the world's languages (Kortmann 1997:108–112; cf. Sasse 2001:495–496).

Additionally, I would like to introduce another category into Kortmann's continua that is relevant for an analysis of כי, namely, discourse markers. First, it is important to acknowledge the intense debate surrounding the definition and categorial boundary of so-called discourse markers (see Degand *et al.* 2013:1–8 for an overview). With the contentiousness of this category in mind, I will attempt to make some appropriately modest observations that build on what we know of the relationship between discourse markers and adverbial connectives without presuming more than is warranted. Degand (2009) does describe some consensus that has been reached on the nature of discourse markers: they connect longer spans of text or the text to the extra-linguistic context, they are not obligatory for the grammaticality of the host sentence, and they do not add to the propositional content of the host sentence the way adverbial connectives do. According to Traugott (1995b:5–6), discourse markers are items, "the prime function of which is to 'bracket discourse', that is, to mark relations between sequentially dependent units of discourse... What DMs do is allow speakers to display their evaluation not of the content of what is said, but of the way it is put together, in other words, they do metatextual work" (cf. Onodera 2011).

Furthermore, it has been widely observed that discourse markers arise from the grammaticalization and intersubjectification of connectives.[118] In discussing the development of French *alors*, Degand & Evers-Vermeul (2015:75) explain, "*alors* evolved from a sentence adverbial with temporal meaning, to a connective marking temporal, causal or conditional relations, and eventually to a discourse-structuring marker with conversation management uses." That is, a connective may be reanalyzed as having a progressively larger scope from the phrase, to the clause, to the discourse level, and even as a marker of interlocutor interaction. They go on to conclude, "The transition from the 'core grammar' to the 'discourse grammar' follows from a series of meaning extensions through pragmatic inferencing (from temporal sequence to causal sequence to meta-discursive sequence) that—given our broad view of grammar—can be well

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[118] See, for example, the chapters in Fischer (2006) that adopt a polysemy approach to discourse markers and incorporate a diachronic perspective in their attempt to account for patterns of polysemy and polyfunctionality.

accounted for within grammaticalization" (Degand & Evers-Vermeul 2015:77; cf. Degand & Fagard 2011; Günthner 2000; Rawoens 2015). Traugott (1995b) specifically posits the following unidirectional path: Clause-internal Adverbial > Sentence Adverbial > Discourse Marker (cf. Hopper & Traugott 2003:37; Maschler 2009:33–39; Onodera 2011:623). Thus, it seems fitting to include the category of discourse markers at the upper end of the continuum from adverbial subordinators to coordinators, with discourse markers representing those forms that can extend scope beyond the clause and relate larger stretches of discourse or elements of interlocutor interaction. Pons Bordería (2006:77) even lists connectives as a hyponym of discourse markers.

However, it is important to note that these continua are not meant to represent all the grammaticalization paths between categories along these continua (although they do correspond to several, e.g. subordination > coordination via subjectification, coordination > discourse marker, adposition > adverbial subordinator, etc.). As Kortman (1997:64) explains, "recategorization or the acquisition of additional category membership happens both within and between the various continua." In fact, concerning grammaticalization paths leading to conjunctions, Meillet (1915:22) has observed, "*Les origines des conjonctions sont d'une diversité infinie, on le sait. Il n'y a pas d'espèce de mot qui ne puisse livrer des conjonctions.*"[119] Nevertheless, Kortmann (1997:108–112) reports that crosslinguistically the most common sources of adverbial subordinators are adpositions (especially prepositions), adverbs, and interrogative markers, trailed by complementizers and relativizers (cf. Heine & Kuteva 2002:4). "The reverse direction of change has hardly been documented in the world's languages" (Kortmann 2001a:845). Adpositions have also been widely recognized as sources of complementizers, which I have added to Kortmann's category continua in Figure 6.3 above.[120] This will be important for the proposal in chapter 9 of an original prepositional use of כי from which its complementizer and adverbial connective uses independently developed. However, rather than attempt to cover all the grammaticalization paths which have been attested between and within these continua, I will leave it to my discussion in chapter 9 to present what seem to be

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[119] Cited in Kortmann (1997:108) with the following translation: "There is an infinite diversity of sources of conjunctions, it is said. There is no part of speech which cannot deliver conjunctions."

[120] For example, Kortmann (1997:64) cites Fischer's (1988) study showing the development of *for* from a preposition to a complementizer, as in the statement, "My wife said for me to pick up some milk." Compare example (70b) above. Compare Heine & Kuteva (2002:273–275), Güldemann (2008:317–349), and Crass & Meyer (2008:238–240; 2011:1268–1269), which describe the well-attested development of similative markers (e.g. "like, as") into complementizers.

the most typologically plausible grammaticalization paths that account for כי's heterosemy based on its synchronic usage and possible diachronic history.

The relevant point at this juncture is that clausal connectives (an already internally complex category) are situated within an even larger network of related categories. As observed by Heine (2003:590), "It may happen that one and the same source form gives rise to different grammaticalization clines or chains and, hence, to more than one grammatical category." Due to the above-mentioned link between grammaticalization and phonological reduction, syntactic polyfunctionality (i.e. heterosemy) is particularly true for monomorphemic (and especially monosyllabic) connectives (Kortman 1997:111–112). This relieves the need to sharply distinguish between categories and functions (though there are clear distinctions at certain cluster points along the continua), and warns against arbitrarily confining polyfunctional words to a single category. Furthermore, especially when approaching monomorphemic (especially monosyllabic) words recognized to function as adverbial subordinators, their typological location at the crossroads of several major category continua urges us to seriously consider heterosemy by looking for potential diachronic developments to and from other categories and synchronic polysemies encompassing several continua (cf. Kortmann 1997:21–22). This addresses Follingstad's (2001:24) criticism that there has been no linguistic rationale for the fact that most Hebraists have identified כי as belonging to multiple word classes. However, progressively focused views can be taken in order to see the network of relationships internal to the category of connectives, the category encompassing most uses of כי.

6.3.2 Four networks of interclausal relations and their connections

Kortmann (1997:137–175) shows that, crosslinguistically, the semantic space of interclausal relations can be placed into four sets of internally complex networks: locative, temporal, modal, and what he calls CCC relations, the main members of the last being cause, condition, and concession, along with several other conceptually similar relations (these will be discussed more below). These are related to each other by network-transcending affinities that connect them together diachronically in unidirectional grammaticalization paths and synchronically in polysemous semantic potentials. The most coarse-grained connections between these four semantic spaces are presented in Figure 6.4 from Kortmann (1997:178). Each of the four major networks of interclausal relations are simplified and presented as a unit (i.e. place,

always unidirectional" (Kortmann 2001a:846–847).[121] This not only provides us with the most pervasive diachronic paths of change, it also provides clues that may help to distinguish between more innovative (perhaps as yet pragmatic) and more entrenched uses in synchronic polysemy. However, a yet more focused look at these semantic spaces reveals more complex network internal and network transcending connections.

6.3.3   Network internal and network transcending connections

In this section, I will present a fuller picture of the relationship between various semantic relations a clausal connective may express. These relationships are captured in Figure 6.5 based on Kortmann (1997:210), somewhat modified here in order to focus on the consistently identified relations within the semantic potential of כי (based on the survey in chapter 2).

When considering these paths of language change, Traugott & König (1991:190) observe that "the kind of inferencing that is dominant in the development of connectives, specifically causals such as *since,* concessives such as *while,* and preference markers such as *rather (than),* is strengthening of informativeness as a conversational implicature becomes conventionalized." They continue, "The fundamental process we see at work is a principle of informativeness or relevance, essentially the principle: Be as informative as possible, given the needs of the situation." (Traugott & König 1991:191).[122] This process of conventionalizing implicatures is an example of conceptual metonymic reanalysis (cf. Traugott 1985:302–303; Traugott & König 1991:210-211). That is, because certain inferences render an utterance more informative and therefore relevant in communication, they are invited by the speaker and/or interpreted that way by the hearer as the full conceptual picture being described by the form of communication. Just like "the white house" has become conventionalized to metonymically stand for the United States Government, a particular utterance may become conventionalized to stand for the fuller interpretation commended to the hearer by its greater communicative relevance (whether intended by the speaker or not).

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[121] As elaborated in Kortmann (1997:178): "It is crucial to stress that for none of these links does the reverse hold, i.e. neither are CCC subordinators found to develop temporal, locative or modal readings, nor do temporal subordinators come to serve as locative or modal markers."

[122] It is important to note the following caveat: "As is also true of all linguistic change, the processes outlined are possible and not necessary. For example, there was no necessity for temporal *while* to develop the concessive sense of 'although'; indeed, in German, the cognate *weil* developed a causal, not a concessive, meaning even though the conversational implicatures relevant for concessiveness must have been present in some contexts" (Traugott & König 1991:191).

Figure 6.5 Strongest network internal and network transcending paths[123]
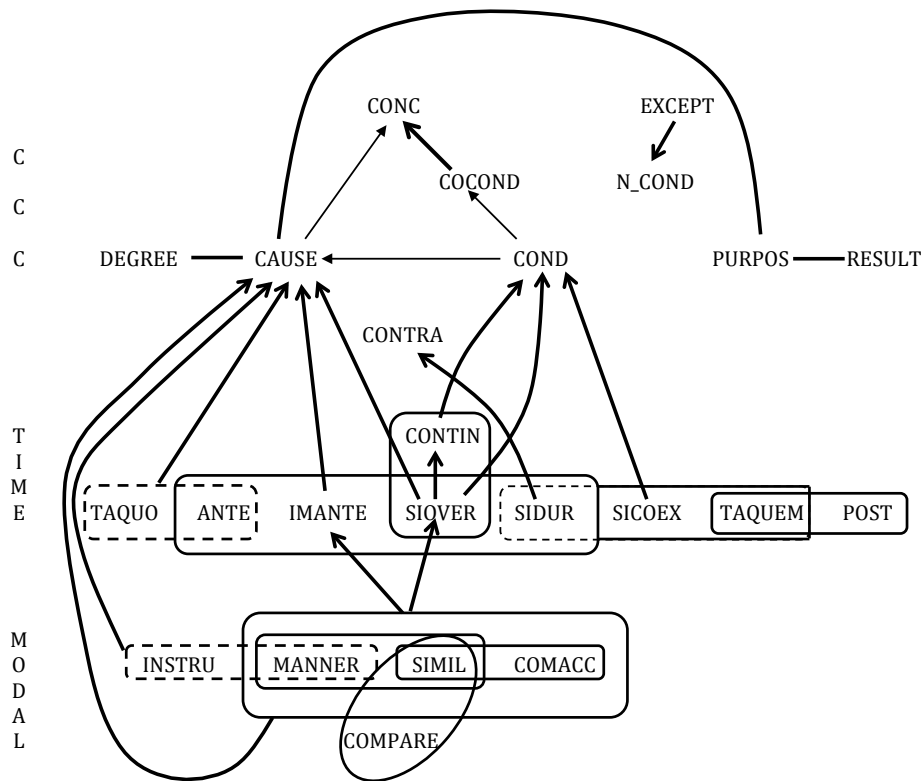
For example, rather than taking the following utterance as a pedantic statement about the temporal simultaneity of events, a more relevant interpretation is that the speaker is upset and is pointing out the contrasting situation he or she finds unfair.

(68)   I'm doing all the work while you're just sitting around!

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[123] Key: ANTE: Anteriority "after *p*, *q*"; CAUSE: Cause/Reason "because *p*, *q*"; COCOND: Concessive condition "even if *p*, *q*"; COMACC: Comment/Accord "as *p*, *q*"; COMP: Comparison "q, as if p" or "q, as though p"; CONC: Concession "although *p*, *q*"; COND: Condition "if *p*, *q*"; CONTIN: Contingency "whenever *p*, *q*"; CONTRA: Contrast "*q*, whereas *p*" or "*q*, but *p*"; DEGREE: Degree/extent "*q*, insofar as *p*"; EXCEPT: Exception/restriction "*q*, except *p*" or "*q*, only *p*"; IMANTE: Immediate anteriority "as soon as *p*, *q*"; INSTRU: Instrument "by *p*, *q*"; MANNER: Manner, German "indem *p*, *q*"; N_CON: Negative condition "unless *p*, *q*" = "if not *p*, *q*"; POST: Posteriority "before *p*, *q*"; PREFER: Preference "rather than *p*, *q*"; PURPOS: Purpose "in order to *p*, *q*"; RESULT: Result "*q*, so that *p*"; SICOEX: Simultaneity co-extensiveness "as long as *p*, *q*"; SIDUR: Simultaneity duration "while *p*, *q*"; SIMIL: Similarity "*q*, (just) as *p*"; SIOVER: Simultaneity overlap "when *p*, *q*"; SUBSTI: Substitution "instead of *p*, *q*"; TAQUEM: Terminus ad quem "until *p*, *q*"; TAQUO: Terminus a quo "since *p*, *q*."

138

At this stage, the prior semantic meaning (e.g. time) is profiled along with the inferred meaning (e.g. contrast). However, through entrenchment and conventionalization, the connective's erstwhile implicature may be metonymically reanalyzed as one of several meanings, then the primary meaning, and then even the exclusive meaning, as with causal *weil* in German. As explained by Kortmann (1997:17), "Moreover, many of these semantic changes can justly be viewed as the outcome of pragmatic inferencing, which in these cases has become conventionalized, but which for many connectives still is no more than a richer (or more informative), nonetheless highly context-bound and optional reading in language synchrony." Furthermore, it is the abductive nature of these inferences that is responsible for the directionality of change from one interclausal relation to another (Traugott & König 1991:193) since "the metonymic change is from less to more informative" (ibid:212; cf. Esseesy 2010:282–284).

While beyond the scope of the present research to describe in detail the specific inferential processes responsible for the semantic change leading to each interclausal relation, I will present several representative examples as well as references to previous research that has explored these mechanisms of change in more detail. In the following discussion, I will briefly describe the most important grammaticalization paths in this network of interclausal relations for making sense of and organizing the polysemy of כי, based on its uses consistently identified in previous research. Because of the centrality of its use as a causal connective, the network internal and transcending relations in the CCC network will be especially significant.

6.3.3.1 *Modal adverbial relations*

Beginning with the network of modal relations, the various overlapping boxes indicate stronger semantic affinities between two or more interclausal relations. Thus, instrumental connectives are most closely related to manner, but not as much as manner and similarity, similarity and comparison, or similarity and comment/accord. The larger box surrounding the manner, similarity, and comment/accord indicates that these three sub-relations have been traditionally labeled together as "modal" (Kortmann 1997:195–196; cf. Haspelmath & Buchholz 1998:319–321). Another characteristic of modal interclausal relations highlighted by the overlapping boxes is that there is less constrained directionality when it comes to network internal connections than with network transcending connections. As Kortmann (1997:178)

observes, while network-transcending connections are unidirectional, these "contrast with network-internal affinities between interclausal relations, which need not be unidirectional." Thus, the conceptual similarity between these relationships is such that it is extremely common for a single form to communicate multiple senses synchronically. The same observation holds for the semantic space of temporal relations. However, network-internal directionality is much more constrained among CCC relations, as indicated by the arrows marking the most common directions of change. The main network-transcending connections are from the Modal, Similarity, and Comment/Accord cluster, which may develop into connectives marking Immediate Anteriority or Simultaneity Overlap in the temporal semantic space, or Cause in the CCC semantic space (cf. Baños 2011:212–214; Chamoreau 2017). English *as* is a prime example illustrating such developments (Kortmann 1997:313–324). Connectives marking an instrumental interclausal relation also commonly develop into causal connectives (Kortmann 1997:196).

6.3.3.2 *Temporal adverbial relations*

Moving to temporal interclausal relations, as already noted above, instead of showing strong directionality between network-internal connections, there is rather an extremely close conceptual similarity between several clusters in this semantic space as indicated by the various boxes inclosing two or more relations. Thus, temporal connectives form a continuum, varying contiguous segments of which may be within the semantic potential of a single word (Kortmann 1997:182–186). Consider the following examples from Kortmann (1997:182).

(69)   a. When she fell, he caught her. (SIOVER "when")
     b. My parents arrived when I was watching the cup final. (SIDUR "while")
     c. When we lived in France, everybody was really friendly to us. (SIDUR "while", SICOEX "as long as")
     d. When you're ready, give me a call. (IMANTE "as soon as")
     e. When you feel bad, just think of our holidays in Portugal. (CONTIN "whenever")

Contingency is included in the semantic space of temporal relations on the plane of indefinite time, versus the definite time of the other relations. The remaining temporal relations (i.e. those not able to be expressed by "when" words) are less tightly connected (See Kortmann 1997:182–185 for more details). The interrelatedness of these temporal senses, however, does not mean any one can develop into any other. Even within such close conceptual similarity there are

constraints. As Kortmann (1997:187) explains, "semantic changes can only take place between interclausal relations which are adjacent on such a cognitive map."

In terms of network transcending connections, temporal relations are the goal of modal (and locative) relations and the source of CCC relations (Kortmann 1997:188). In terms of its function as a source, the semantic space of temporal relations provides several inputs into the CCC semantic space. Indeed, "the temporal relations exhibit more and stronger semantic affinities to CCC relations than to any other type of nontemporal interclausal relations" (Kortmann 1997:188). Figure 6.5 highlights Causal and Conditional relations as the most common goals of previously temporal relations, which may then also subsequently develop into Concessive relations. The inferential process of the *post hoc ergo propter hoc* [after this therefore because of this] fallacy has been widely observed as the mechanism for deriving causal meanings from a variety of temporal relations (Traugott 1985:297; Kortmann 1997:190; Haug 2008:289–290; Degand 2009; 2012:551). As Haug (2008:290) explains, "Some such inferences arise on the fly in specific communicative situations and disappear again, whereas others become conventionalized as what Traugott and Dasher call generalized invited inferences." Haug (2008:289–290) illustrates with the following examples.

(70)   a. Since Susan left him, John has been very miserable.
         b. In fact, he has been miserable ever since he first met her.
         c. Since you are not coming with me, I will have to go alone.

In the first utterance, the temporal meaning is present with an invited causal inference, since a causal link would make the relationship between the two clauses more relevant. However, this causal implicature could be cancelled by following it with the second utterance. Nevertheless, there are also uses of causal "since" which have a non-cancellable causal meaning, as in the third utterance, which has no temporal meaning at all. This shows that the causal use of "since" cannot be merely confined to the realm of pragmatic implicature, but has also become conventionalized in certain uses that are exclusively causal, a key diagnostic for determining whether a certain sense has indeed become conventionalized (such diagnostics will be discussed further in chapter 7). And, once again, German *weil* has already been presented as an instance of a relation of Simultaneous Overlap developing into an exclusively causal connective.

141

Traugott (2012:555–556) also discusses the inference responsible for the reanalysis from a temporal to a conditional of the connective phrase *swa lange swa > so/as long as* as seen in the following utterances.

(71)   a. Squeeze (the medication) through a linen cloth into the eye as long as he needs.
        b. I heard Ann Wright say . . . Chapman had stole Davis's watch; she asked Davis to go and see for it; Davis answered, he did not mind the watch, so long as he escaped with his life.

The inference involved here is that a temporary situation during which an utterance obtains (in the first utterance) is reanalyzed as a condition that is necessary for an utterance to obtain (in the second utterance). A point of interest here is that the first utterance is an Old English text from 850–950 (updated here in Present Day English form) and the second is from the mid-18th century, which is the first period in which exclusively conditional uses of this phrase begin to appear in corpora. This once again illustrates the gradualness of change resulting in pragmatic and semantic polysemy. This change from temporal (specifically simultaneous overlap) to condition is commonly mediated by a stage of contingency "whenever" (Kortmann 1997:191). This will be significant for temporal uses of כי in casuistic contexts when there is often overlap between Simultaneous Overlap "when", Contingency "whenever", and Condition "if" (discussed in section 9.1.1 below).

6.3.3.3 *Conditional, Causal, Concessive, and related adverbial relations*

Moving to the CCC semantic space, as noted above we see that it is the prototypical goal network of interclausal relations, but unlike the other semantic spaces, there are several unidirectional connections network-internally as well. First, we may note that several relations are not connected by strongly unidirectional lines, indicating their close conceptual relationship. As Kortmann (1997:197) notes, "The majority of the strongest of these network-internal affinities are to be found within the causal subsystem, which consists of the interclausal relations Cause/Reason, Degree, Purpose and Result." Kortmann (1997:198–199) also notes as particularly astonishing the pervasiveness of polyfunctional (heterosymous) connectives marking cause, purpose, result, as well as functioning as *that*-complementizers, a very significant observation for an analysis of כי, for which each of those functions have been noted.

142

Concerning conditional relations, as seen above, these overwhelmingly develop from several senses of simultaneity on the continuum of temporal relations. Network internally, they may develop into causals or concessives. In the case of the latter, this is often via concessive conditionals. Concerning the development into concessives, König (1985:275–276) explains that the inferential processes "are similar to the causal implications sometimes carried by utterances expressing a temporal sequence between two events (*post hoc ergo propter hoc* [after this, therefore because of this]), which have also come to be conventionally associated with originally temporal connectives in many languages (e. g., E. *since*)." For example, König's (1985) analysis of the development of conditionals to concessive conditionals and then to concessives can be illustrated from the following utterances (cf. Haspelmath & König 1998; Kortmann 1997:160, 199–201).

(72)   a. If I (ever) get a million dollars, I will buy a Ferrari.
        b. Although I don't have money, I will buy a Ferrari.
        c. I would not buy a Ferrari (even) if I had a million dollars.
        d. This is an interesting argument, even if/although it is complex.

Prototypical conditionals do not necessarily entail the factuality of their clauses. Rather, as in (72a), conditionals communicate propositions contingent on the potential fulfillment of the condition. But concessives do entail the factuality of, if general incompatibility between, their clauses, as in (72b). So, a conditional must gain these additional implicatures (i.e. factuality of clauses and their expected incompatibility). When a conditional is used in a context in which its clauses are generally incompatible, it becomes virtually indistinguishable from a concessive conditional ("even if"), as in (72c). Then, when a concessive conditional is used in a context in which the clauses are assumed to be factual, it takes on a concessive meaning as in (72d) (cf. Traugott & König 1991:202; König & Siemund 2000:343; Hilpert 2005:69).

As far as the connection from conditional to causal, Kortmann (1997:92) notes that in additional to its obvious conditional sense, and even its concessive conditional and concessive uses just described, grammars and semantic accounts of conditionals also list causation as one of their extended meanings, as illustrated by the following examples.

143

(73)   a. If Mary visited her parents yesterday, she should know about their problems.
              (real Condition amounting to causal 'as')
          b. If she is giving the baby a bath, I'll call back later. (Dancygier 1993:417)
              (real Condition amounting to causal 'as, since')

Kortmann (1997:92) explains: "Only due to the fact that here (i) *if p* stands for *if it is (really) true that p* or *if some individual X is [really) serious about p* and (ii) the speaker *knows* or takes it for *given* that *p* is true or that X is serious about *p,* one feels justified in selecting the stronger or more informative causal interpretation" (see further König & Siemund 2000; Verhagen 2000).[124] Thus, conditionals used in contexts where the condition is known or assumed to be true can be reinterpreted as causals. The close fluidity between condition and the other major CCC relations leads Kortmann (1997:92) to regard it as "the adverbial subordinator for the marking of CCC relations par excellence."

Like conditionals, causal relations have also been observed to develop into concessives. The basic reason for this is that causal relations are the opposite of concessive relations (König & Siemund 2000:343). Thus, in certain contexts, a negated causal connective can be reanalyzed as a concessive (König & Siemund 2000:344). Recalling the discussion of scope and discursive (in)dependence from chapter 5, this relationship between causals and concessives can be illustrated by the following examples based on König & Siemund (2000:344).

(74)   a. The house is not uncomfortable because it lacks air-conditioning.
          b. The house is not uncomfortable / although it lacks air-conditioning.

The first utterance is composed of a single intonational unit and the second is separated into two, marked by a forward slash. Thus, the negation in (74a) falls over the entire utterance (an integration phenomenon) and the generally expected causal relationship (i.e. the lack of air conditioning causing discomfort) falls within the scope of negation and is not realized. Since concession is an unrealized causal relation, such negated causal relationships can be reinterpreted as concessives such as in (74b) (cf. Hilpert 2005). However, this also results in a syntactic reanalysis as well. In (74b), the negation is confined to the main clause, leaving the concessive

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[124] However, the causal reading does not exclude the conditional one in these examples, and furthermore may even be cancelled. Thus, in these specific examples, the causal reading is still regarded as an (as yet to be conventionalized) implicature.

144

clause discursively independent with its own focal structure. As with the above discussion concerning the reanalysis of conditionals as concessives, the crucial characteristic of utterances like (74a) is that, although the expected causal relation is negated, the propositions in each clause are still held to be true (i.e. the house is not uncomfortable and at the same time lacks air conditioning), a key aspect of concessive relations. It is this simultaneous reality of normally conflicting states of affairs that constitutes the concessive relationship. For these reasons, a negated causal relation, as in (74a), becomes reanalyzable as a concessive relation, as in (74b), and can serve as the locus of semantic change.

As for concessive relations, the above comments have already presented the most common sources of concessives and illustrated the mechanisms for their reanalysis as such. As noted above, crosslinguistically, concessives are a "dead-end street" for interpretive enrichment (Kortmann 1997:208). That is, concessives have not been observed to yield any further semantic extensions into other types of adverbial relations (cf. Bertocchi & Maraldi 2011:181).

6.3.3.4 *Loose ends*

The exceptive/restrictive ("except, only") and negative condition ("unless") relations seem to have been somewhat orphaned in Kortmann's representation of the CCC semantic space. While clearly part of the CCC domain as attested to by consistent crosslinguistic polysemy patterns, the precise connection is not treated by Kortmann as extensively as other relations. He does offer a clue when he observes that subordinators like *except* and *unless* may be equivalent to clauses introduced by *if...not*, as in the following, taken from Kortmann (1997:199; cf. Von Fintel 1992; Bertocchi & Maraldi 2011:112–121; Ohori 2011:644).

(75)   a. I'm not going *if* you do *not* go with me.
        b. I'm not going *except* you go with me.
        c. I'm not going *unless* you go with me.

Here, the conditional heading a negated clause in (75a) expresses the same relation as the exceptive clause in (75b). The basic reason for this seems to be that the conditional relation "if *p*, then *q*" invites the richer interpretation "(only) if *p*, then *q*" (cf. Haug 2008:290; Mauri & van der Awera 2012:394-396 and references there). That is, the statement of a sufficient condition can invite the inference that it is also a necessary condition. When the clauses in this richer reading

145

are negated, it yields the form "Not *q*, if not/unless/except *p*" as in (75c). Thus, such conditional relations such as in (75a) can develop into exceptive relations as in (75b). Additionally, as figure 6.5 above shows, there is a crosslinguistic tendency for exceptive/restrictive connectives to develop into negative conditionals as in (75c). However, more broadly speaking, rather than prominent unidirectional paths between exception/restriction and the rest of the CCC network, Kortmann (1997:87) simply observes that "Exception and Restriction may blend with Condition, Contrast, or Concession," as in the following utterance, adapted from Kortmann (ibid; cf. Esseesy 2010:335):

(76)   She's a great help in the kitchen, except/only/even if/but/although she can't keep her mouth shut.

Here, any one of the connectives listed is possible and the meaning of each is difficult to distinguish from the others. This concisely illustrates the conceptual similarity of these relations. Furthermore, Ramat & Mauri (2008, 2011) provide evidence for a directional change from causal to contrastive, especially in contexts where it is preceded by a negator, a common trait of contrastive כי (cf. Schwenter 2000).

The question may be asked, how much of this complex network of uses can be included in the synchronic usage profile of a single form. According to Kortmann (1997:168), 745 of the 2,043 (36.4%) adverbial connectives in his study were polysemous and 6.6% of these can signal more than five interclausal relations. Thus, it is not at all unheard of for the usage profile of single form to span a large set of interclausal relations. Furthermore, it is specifically connectives signaling temporal (particularly simultaneous overlap, e.g. *when*), causal, and conditional relations that have the highest degree of polysemy crosslinguistically (Kortman 1997:169–171; 2001a:844–845). These happen to be among the most prominent in the usage profile of כי.

6.4   Chapter summary

In this chapter I have attempted to outline the main processes that drive grammaticalization (reanalysis and analogy) and their respective mechanisms (metonymic and metaphorical extension). I have also attempted to demonstrate that polysemy is a necessary synchronic result of gradual diachronic change. However, rather than resulting in an arbitrary and undifferentiated mass of disconnected uses, I have tried to show how these cognitively

motivated changes produce principled organizations of a form's polysemy and polyfunctionality according to diachronic unidirectionality and synchronic prototypicality corresponding to entrenchment and relative (i.e. contextual) frequency. With this in mind, the genuine polysemy of clausal connectives, such as כי, can be affirmed and given a principled account based on crosslinguistically prevalent diachronic paths of change and synchronic patterns of polysemy. Specifically, כי can be organized in its various domains of use as a causal connective along the path of (inter)subjectification with its corresponding movement toward coordination along the subordination-coordination continuum. The other uses of כי, both within the category of adverbial connective as well as other uses along the major category continua, can also be organized along cognitively motivated and typologically plausible paths of change involving such polysemous and polyfunctional usage profiles.

The question now is how כי corresponds to these networks of usages, both qualitatively in terms of the senses and functions within its usage profile, and quantitatively in terms of the level of entrenchment and prototypicality for each use as indicated by relative frequency. As is hopefully clear by now, this question can be approached even from a synchronic perspective, because "…the meaning structure of polyfunctional subordinators in language synchrony does indeed seem to reflect pragmatic processes of interpretative enrichment and semantic changes in language diachrony" (Kortmann 1997:203; cf. Esseesy 2010:52). And, such a typological (i.e. crosslinguistic) perspective on language change is so helpful because "[Forms] tend to be polysemous in similar ways across languages, and to undergo similar paths of development as a result of human discourse and interaction" (Hopper & Traugott 2003:33). The only thing left to do is examine representative examples from my corpus study of כי in the Hebrew Bible to see how its usage profile is distributed along this complex network of uses.

Part Three: A profile of כי in the Hebrew Bible

Part Three of this study now turns to present a semantic and syntactic profile of causal כי in the Hebrew Bible according to the framework laid out in Part Two. After a brief overview of my approach to corpus design and token analysis in chapter 7, I will lay out the profile of כי in two steps. In chapter 8, I will present the results of a quantitative corpus study of causal כי (the most prototypical use) according to the semantic and syntactic model presented in chapters 4 and 5. Each use of causal כי will be categorized according to the various semantic, pragmatic, and syntactic categories identified in the model, and arranged according to prototypicality. Furthermore, this arrangement will be explained in terms of the diachronic process of subjectification, outlined in chapter 6, especially section 6.2.

However, this leaves unanalyzed around 40% of כי clauses in my corpus data, which are not causal. In chapter 9, I will therefore incorporate the other uses of כי observed in the corpus into an overall profile of its semantic and syntactic potential. Each usage will constitute a node in a polysemous network of interconnected uses, which have developed diachronically according to processes of grammaticalization and are organized synchronically according to prototypicality and entrenchment, as outlined in chapter 6.

7 Approach to corpus design and token analysis

> *There is, in reality, no such thing as a balanced corpus and no corpus can ever hope to be representative of a language.*   Glynn (2010:11)

The purpose of this chapter is to briefly present the corpus used in this study and lay out my approach to analyzing the tokens of כי in my corpus which will be discussed in the rest of Part Three. The discussion will begin by covering the scope and rationale of the corpus design, which aims for proximate balance and representativeness. I will then describe the main guiding questions and the basic principles and techniques used in analyzing the use of כי. Finally, I will discuss the problem of quantifying prototypicality as a means of organizing the various uses of כי in terms of greater and lesser "weight" in its overall profile.

7.1 Introduction to the corpus

The profile of כי that will be sketched in the following chapters is based on the 1,058 instances of כי found in the BHS edition of Genesis, Leviticus, Ezekiel, Book 1 of the Psalms (1–41), and 1–2 Chronicles. The rationale for this selection was to approximate a representative sample of discourse types and diachronic layers in the Hebrew Bible. Regarding discourse types, Genesis and Chronicles provide primarily narrative text, Leviticus provides primarily prescriptive text[125], Ezekiel provides primarily visionary prophetic text, and Psalms provides poetic text. For a more detailed demarcation of discourse types within each of these sections, see Dillard & Longman (2006:54–55, 83, 362–67, 246–52, 195–201, respectively).

The diachronic layers are much more difficult to distinguish. Without going into all the details of debate regarding the dating of Hebrew Bible texts, I will take a moderate view which does not demand an absolute dating of texts based on linguistic considerations on the one hand, but also does not eschew the relative ordering of texts (especially in clearer cases) as a completely fruitless exercise on the other. Specifically, I take as a point of departure the position

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[125] While included primarily for its genre, it is worth noting that many of the כי clauses in Leviticus occur in the motive clauses of prescriptive texts, which Sonsino (1980:119–210) has persuasively argued to be plausibly original to the text, rather than later redactions. Note Bandstra's (1983:129–130) helpful summary of Sonsino's main conclusion on this point: "The author disagrees with those who conclude that the motive clauses are secondary accretions just because there may be grammatical inconsistencies and so-called stylistic differences. He argues that the motive clauses are possibly as early as the laws themselves. His examination of the motivated laws of the cuneiform codes supports this conclusion. He certainly does not claim that all the motives are original, nor does he claim to be able to determine the originality of particular motive clauses. He does state in principle, however, that motive clauses can be originally attached to the law."

recently argued by Kim (2013) that, on the one hand, there is no decisive break between so-called Early Biblical Hebrew and Late Biblical Hebrew, with certain texts (especially Ezekiel) representing a distinctively transitional period uniquely precipitated by the exile. However, on the other hand, this does not therefore render the diachronic layers of the Hebrew Bible hopelessly undifferentiated.[126] Rather, Kim presents a measured *via media* between, on the one hand, Hurvitz's "traditional" dichotomy between EBH v LHB with the exile being "the determining factor of change," and on the other hand, Young, Rezetko, & Ehrensvärd (2008) who claim that variation traditionally ascribed to these periods is merely stylistic and offer no indication of diachronic change.[127] Regarding the certain linguistic forms commonly claimed to indicate different diachronic layers (see Kim 2013:97–150 for a detailed treatment), Kim's socio-linguistic analysis supports the conclusion that while some of these variations are "from above" (i.e. conscious stylistic choices), several are authentic "changes from below" (i.e. unconscious natural language change). Even Rezetko & Young (2014:398) concede Kim's (2013:60) essential point when he writes: "What the evidence pictures is not two separate linguistic bodies and a mixture of both, but rather a continuum, which is multidimensional and which shows a great degree of variability." However, while Rezetko & Young (2014) focus on the point that this precludes absolute linguistic dating (e.g. 2014:350), Kim focuses on the fact that even though there may be no clear-cut division between Early and Late Biblical Hebrew, especially one which can be empirically verified on linguistic grounds, there is nevertheless strong evidence of gradual change in the language which reveals a continuum. Indeed, even in his recent defense of the traditional categories of Classical and Late Biblical Hebrew (with Ezekiel representing an intermediate stage), Joosten (2016:332) is careful to acknowledge "languages evolve gradually, and the division into just two corpora is certainly artificial to a certain extent," while at the same time recognizing the value of those diachronic categories. Of course, all this makes perfect sense in light of studies on language evolution, briefly touched on in sections 3.4 and 4.7, and

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[126] Indeed, the similarity between the so-called Early Biblical Hebrew corpus and epigraphic texts dated to the monarchic period, explicit marks of a post-exilic composition (e.g. reference to events of the Persian period as well as Persian loan words) in the so-called Late Biblical Hebrew corpus, and the Babylonian loan words in Ezekiel placing it during the exilic period, do seem to commend the traditional view as at least a reasonable relative corpus arrangement, even if not yielding exact dates (see Joosten 2016 for details).

[127] Joosten (2016:333) makes a compelling point when he notes, "The syntactic evidence speaks against the notion that CBH [Classical Biblical Hebrew] and LBH [Late Biblical Hebrew] are to be regarded as style forms. Though one can imagine ancient authors consciously selecting certain types of vocabulary, it would have been much harder for them systematically to distinguish two sets of syntactic constructions."

discussed in more detail in chapter 6. Thus, while we may not be able to assign absolute dates to particular portions of the Hebrew Bible, I proceed on the assumption that gradual language change, not simply stylistic variation, is the expected norm in a corpus spanning many centuries.

In light of these brief comments, I take as an uncontroversial starting point the observation that "We may legitimately describe different chronological layers of BH inasmuch as we begin with the texts that have agreed-upon dates…" (Kim 2013:157), or at least a fairly well-established relative chronology. Therefore, I take Chronicles as an example of later historical narrative relative to Genesis, without necessarily claiming they homogenously represent so-called Early and Late Biblical Hebrew, respectively. Additionally, while Ezekiel was primarily included in the corpus sample for its genre, its relative temporal location within the biblical corpus will also be noteworthy in the following discussion with regard to diachronic development.[128] I do not take the position that Ezekiel represents a uniquely transitional period between a more or less homogenous EBH and LBH on either side. However, in addition to some of its more genre-based characteristics, Ezekiel's relative position between the earliest and latest writings of the Hebrew Bible does seem to affect the profile of כי clauses in that text. And, in light of the previous chapter documenting crosslinguistically pervasive language changes affecting words like כי, attributing Ezekiel's usage to diachronic change seems typologically plausible. However, I will leave further details to the analysis below as they become relevant in the course of discussion. Finally, it should be noted that I do not interact with various attempts at reconstructing different redactional layers of the texts in my corpus. While an interesting and worthwhile exercise, that is beyond the scope of the present research. For the above reasons, any implications of this study for the dating or relative arrangement of texts should be considered with these qualifications in mind.

Thus, it is hypothesized that my corpus, covering different genres and texts from the clearer segments of the diachronic continuum in the Hebrew Bible, will provide a relatively representative sample of tokens of כי. This may be regarded as a stratified sample corpus approach along the lines of what is proposed by Biber (1993, *inter alia*), which categorizes groups of texts within the sample according to genre and diachrony. This is meant to provide

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[128] For example, the frequency with which the use of כי as a discourse marker of continuation or elaboration occurs in Ezekiel appears to be related to both the nature of Ezekiel's genre, as well as its linguistic innovativeness relative to earlier texts. This function of כי is discussed below in section 9.2.2.

balance and representativeness to the corpus.[129] McEnery & Hardie (2012:8–10) describe this as the "sample corpus approach." However, they also note that when it comes to dead languages, the researcher is confined to the data available and has much less control in corpus design. Corpora of this type are called "opportunistic" corpora and mainly apply to endangered or dead languages (McEnery & Hardie 2012:11–12). Nevertheless, the present corpus is designed with balance and representativeness in mind. Ultimately, however, it must be acknowledged that no corpora can be perfectly balanced, nor representative (Glynn 2010:11). This is only exacerbated by the fact that the Hebrew Bible is limited fragment of the linguistic potential of its authors and audiences and that this study is largely confined to the tradition of the BHS. Glynn (2010:12) anticipates an objection to the study of such limited corpora and provides an answer equally applicable to this project: "In light of this, one might argue that a corpus, which cannot represent the entire complexity of a language, can never be a basis for studies of language, writ large. The response is straight-forward - we do not attempt to account for all of language in every study." With that caveat in mind, the corpus used here was designed to reasonably approximate a representative sample within the scope of the present research.

7.2   Analyzing tokens

With the corpus design in mind, the next question is how tokens of כי within the corpus will be analyzed. In broad strokes, my approach in identifying different uses of כי has followed that of Kortmann's (1997) typological study which asks three questions: 1) How can we distinguish pragmatic uses from clearly grammaticalized uses in which erstwhile pragmatic implicatures have become semanticized? 2) How can we distinguish between different semanticized uses within a polysemous set? 3) How can we differentiate between levels of prototypicality among the uses in a polysemous set? Firstly we may distinguish between pragmatic polysemies and genuinely semantic polysemies. This distinction is made in order to avoid identifying conversational implicatures as semanticized meanings and is indicated by "semantic uniqueness" or "one meaning to the exclusion of another." That is, a given meaning of כי is considered relatively semanticized when there are cases of such usage where it is the unambiguous meaning to the exclusion of others. The rationale for this is that meanings which are simply pragmatic implicatures only exist alongside inferentially enriched semantic meanings.

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[129] See McEnery & Hardie (2012:10–11) for a discussion of these parameters.

However, if a certain reading of כי is the only one present in a text, it is not simply a pragmatic implicature. Crucially, for reasons discussed in chapter 6, this does not discount the expectation of ambiguous contexts or imply that contexts with multiple possible readings are unimportant for the meaning and development of כי as a whole. Furthermore, because semantics and pragmatics form a continuum, the criterion of semantic uniqueness is simply used as fairly transparent threshold of relative semanticization. In reality, the semantics-pragmatics interface is a fine gradient. Kortmann (1997:91) uses the following examples to illustrate this approach to distinguishing between semantic and pragmatic polysemies:

(77)   a. After we read your novel we felt greatly inspired. (Anteriority amounting to Cause)
        b. The president approved selling military arms to Iran and trading them for hostages
           after proclaiming publicly that he would do neither. (Anteriority amounting to
           'although, despite the fact that')

In these examples, cause and concession are viewed as merely enriched interpretations rather than relatively semanticized senses, as evidenced by the fact that they "are both heavily context-dependent and, above all, do not exclude the Anteriority reading" (Kortmann 1997:91). However, this does not discount the fact that such pragmatic polysemies may potentially become semanticized and indeed, may already be semanticized in other contexts (as illustrated in example 78 below). This will be important when considering, for example, the supposedly asseverative uses of כי which may be part of an inferentially richer reading, but is often not the unambiguous sense to the exclusion of other clearly semanticized uses.

        With the above distinction in mind, we may also distinguish between different semanticized uses of כי by different syntactic preferences. As Kortmann (1997:90) describes, "From the many proposals which have been made for criteria which help distinguish different (independent) senses, let me just pick out the one which in cases of doubt was made the decisive criterion in this study, viz. divergent syntactic constraints." Kortmann refers to this as the "different-meanings-in-different-syntactic-environments" phenomenon. He illustrates this with English "since", which may have a temporal or causal interpretation. However, only the temporal interpretation is possible with non-finite verbs in the adverbial clause, as in (78a). A causal interpretation is constrained when a finite verb is used with a non-past or stative verb, as in (78c). However, "since" is ambiguous between a causal and temporal reading when it governs a

153

finite verb in some past tense, as in (78b).

(78) a. Since refusing the offer, John hasn't been to see us.
      b. Since John has refused the offer, he hasn't been to see us.
      c. Since I'm sick, I won't do well on the exam.

This illustrates the point made above that the "one meaning to the exclusion of another" criteria does not preclude cases of ambiguity between clearly semanticized uses.[130] These sort of contextual constraints will be useful for distinguishing different uses of כי and will also take into consideration the most pervasive genre preferences, such as the preference for conditional כי not only to occur in first position relative to the main clause (along with several other syntactic-syntagmatic constraints such as use with the *yiqtol* verb form), but also its overwhelming preference for prescriptive texts.

Furthermore, different semanticized uses can be further distinguished into more or less prototypical uses, in line with the comments in section 6.1.4 above on entrenchment and prototypicality as gradient values (cf. Kortmann 1997:93). The basic criterion for distinguishing between more or less primary senses is whether a particular use requires a special context. Of course, as is to be expected from a dynamic system such as language characterized by metastability, there may be cases where several uses in a form's usage profile appear to be more or less equally primary (Kortmann 1997:94).

Finally, a couple more tools used in my analysis are paraphrase tests and comparison with ancient and modern translations. Several paraphrase tests were proposed by Sanders (1997) who explains, "the paraphrase test makes the possible interpretations explicit and enables analysts to systematically check their intuitions." Evers-Vermeul (2005:57) offers the following examples in Table 7.1, which I utilized in categorizing the tokens in my corpus (cf. Stukker *et al*.

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[130] In fact, Traugott & König (1991:195) point out that cases where there are two different readings possible "signal polysemy, i.e. conventionalized meanings, not just conversational ones." Along similar lines, we may note the observation of Geeraerts (2016:235) that, when an intended interpretation "…cannot be determined on the basis of the available information, the interpretation is indeterminate, and the utterance is said to exhibit ambiguity. Ambiguity, in other words, may result from contextually unresolved polysemy." In other words, we must dispense with the assumption that the presence of ambiguous uses is an evidence of a highly abstract monosemous definition or that the possible readings of an ambiguous use are necessarily pragmatic. On the contrary, these cases actually suggest polysemy. Also note Geeraerts' (2016:234–240) discussion the concepts polysemy, vagueness, and ambiguity on the one hand, and utterance meaning and systemic meaning on the other. He persuasively argues that while there are relatively clear cases of these distinctions, these represent continua rather than dichotomies or hard-and-fast distinctions, especially when taking into account language change.

2009:131–133). While not eliminating intuition and qualitative analysis, these sorts of paraphrase tests help to make the precise nature of a causal relationship more explicit and therefore help the researcher better judge the felicity of a particular reading within the context. This helps reveal impossible or highly unlikely readings and also reveals instances with a high level of ambiguity between domains of use.

Table 7.1 Paraphrases used in domain analysis of causal כי

Domain	Paraphrase
1. Speech act	1. a. Situation P causes speech act Q b. Speech act Q is caused by situation P
2. Epistemic	2. a. Situation P causes conclusion Q b. Conclusion Q is caused by situation P
3. Content	3. a. Situation P causes act / situation Q b. Act / situation Q is caused by situation P

I have also compared the renderings in various translations of the Hebrew Bible text. This included mainly the LXX and a handful of modern English translations falling at different points of the continuum between more literal and more dynamic (especially the text of the Jewish Study Bible, NASB, ESV, NET, NIV 2011, and NCV). The rational of Meier's (1992:18) use of modern translations in his study of direct discourse in the Hebrew Bible applies equally well to the present project: "…the issues discussed here are commonly ancillary to the concerns of traditional commentaries. Commentators are often not required to make the decisions that translators cannot avoid…accessing modern translations is an invaluable aid for alternative readings and the uncovering of discourse level options." This is certainly the case with כי where, even in technical commentaries, in-depth discussion of its uses is not common. Translations on the other hand, often make their interpretation plain. However, I do not view these translations as authoritative and my intention is not to make any systematic claims about the translations themselves, but merely to use them heuristically.

Despite these measures I have taken, our understanding of the precise nature of causal or other interclausal relations in language will never be more than proximate. Even in face-to-face spoken communication between interlocutors with as much in common as possible, ambiguity is unavoidable. Indeed, as discussed in chapters 4 and 6 above, pragmatic extensions exploit the fuzzy boundaries between senses and provide the cases where different uses may overlap. This is what makes language change possible. At the same time, the presence of ambiguity does not

necessarily imply indifference on the part of the speaker to communicate a particular sense among the possible options. Rather, it reveals the extreme reliance on context, not only the discourse context, but also the entire web of presupposed encyclopedic background knowledge, for the proper interpretation of even the most mundane utterance.[131] However, in the case of an ancient text so far removed from the modern researcher in time, context, and conceptual world, and confined to a relatively small, written corpus with no consistently reliable reconstruction of intonation (one of the indicators of clause type), the difficulty presented by ambiguity is compounded. In such cases where there is little to adjudicate between possible interpretations, one must be content with positing which sense is more or less likely, or perhaps that multiple senses operate simultaneously in a single usage. Stated more positively, the perspective adopted by the present research views cases of ambiguity as informative seams, which reveal the construction of a form's polysemous and polyfunctional usage profile. Thus, ambiguity is not unexpected or even necessarily problematic. When informed by a typological perspective of language change (as described in chapter 6), cases of ambiguity can actually be leveraged as evidence for reconstructing a form's diachronic history and the organization of its synchronic polysemy.

7.3 Quantifying prototypicality

As discussed above in section 6.1.4, this research follows the insights of cognitive linguistics as applied to quantitative corpus methods.[132] It was noted there that due to the processes involved in entrenchment resulting in prototypicality arrangements, it is not enough to simply count bare frequency of uses. Rather, the approach taken here is to combine frequency with something like what is called a usage-feature or behavioral profile analysis. Recalling the above discussion, this combines frequency with distribution across various features and usually involves the following basic components: 1) collecting tokens of data from a corpus, 2) annotating them for distributional features, 3) converting the annotated data into percentages of cases that exhibit the various features, and 4) presenting a statistical analysis of the results. The two criteria in Gries & Divjak's (2010:339–340) discussion of a behavioral profile analysis of

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[131] Cf. Searle's (1979:127) observation that even in simply ordering a hamburger, "…a prodigious amount of background information has already been invoked…"

[132] For a brief overview, see McEnery & Hardie (2012:179–185) and the various studies in Glynn & Fischer (2010) provide more detailed descriptions and explorations.

156

polysemy used to determine prototypicality are "the most frequent sense and the formally least marked or constrained sense" where "least marked or constrained" means the sense that occurs in the widest constructional contexts.

I have attempted to account for these effects of contextual frequency in this study by labeling various features for each token of כי in my corpus and weighting each use by noting generalization across contexts. However, the diversity of contexts one can identify for any given unit of language may be vast, depending on the level of granularity adopted. In order to make these sort of quantification more feasible, I have limited the features tagged in the behavioral profile to features found to be crosslinguistically significant for the analysis of words like כי as discussed in Part Two. These include: text type (the principle types being narrative, discourse, casuistic/prescriptive, and poetry), position relative to the primary clause (e.g. initial, medial, or final), main-clause phenomena, and integration phenomena. For uses of כי as a causal connective, these tokens have also been labeled according to domain of usage (i.e. content nonvolitional, content volitional, epistemic, speech act, and metalinguistic) and level of subjectivity (i.e. whether the causal relation must be interpreted with reference to a subject of consciousness or not. If so, whether the subject of consciousness is identical to the speaker here and now—either implicit or explicit—or if it is a character subject of consciousness). Diachronic layers in the corpus have also been noted in terms of the relative chronological ordering of texts. In addition to these crosslinguistic considerations, features repeatedly identified in past research on כי (surveyed in chapter 2) and found to be significant for distinguishing its different uses have also been taken into account in order to determine whether a given use is contextually limited or has been generalized across contexts, indicating lesser or greater prototypicality, respectively. Perhaps the most crucial feature identified in past research on כי for determining usage was its relative order in relationship to the main clause, as well as the presence of other syntagmatic phenomena (e.g. negated main clause for adversative כי). These will be discussed in turn for each domain of usage of causal כי in the following sections of chapter 8 and for each non-causal use of כי in chapter 9.

While more sophisticated statistical methods may be employed, I have taken a more modest approach to quantifying contextual frequency as follows.[133] While fully understanding

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[133] Due to the limitations of the present project, as well as the limited automated tagging of the corpus, I have not been able to carry out a more robust analysis such as the attraction-reliance method developed by Schmid or the

that these values are in reality highly gradient and that drawing any hard-and-fast threshold of "contextual restriction" is ultimately arbitrary, the frequencies I have included in my analysis may be viewed through a coarse-grained, three-fold categorization of uses into highly restricted, somewhat restricted, and relatively unrestricted. A use may be considered highly restricted if unambiguous tokens are overwhelmingly confined to one or more syntagmatic features unique to that usage. For example, unambiguous cases of exceptive uses are highly restricted to the כי אם collocation. By contrast, while certain uses are highly constrained to a feature like preposed position before the main clause (e.g. temporal כי), this is also shared by many other uses (e.g. conditional, concessive, consecutive). Furthermore, as discussed in section 5.4, there is a crosslinguistic tendency for these types of connectives to overwhelmingly prefer this position due to the nature of information processing and mental space building, even if they are the sole primary use of a connective.[134] Therefore, it is crucial to note that this type of restriction is not taken as evidence of lack of generalization across contexts. Otherwise no connective could be understood to be prototypically temporal, for example. On the other end of the spectrum are those uses that are relatively unrestricted. For example, while several uses of כי are largely restricted not only to a certain position relative to the main clause but also to use with certain verbs types (e.g. conditionals are overwhelmingly restricted to first position and govern clauses with *yiqtol* verb forms), causal כי does not require a special context beyond what is normally observed for causal connectives (such as preferring final position relative to the main clause for mental space building reasons). Uses not tied to a special context on the one hand, but also not enjoying complete generalization across possible contexts may be regarded as somewhat contextually restricted. Thus, the frequencies of uses within the semantic and functional potential of כי presented in the rest of part three should be viewed with these considerations in mind. I will

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collostructional method developed by Stefanowitsch and Gries. See Schmid (2010:107–115) for an overview of the attraction-reliance and collostructional methods as well as limitations of both. Furthermore, most studies using advanced statistical methods in corpus driven cognitive linguistic research has been on nouns or other more lexical words. Therefore, there is not much in the way of analogous research on which to model the present study.

[134] However, note that a form's prototypicality can be viewed from both a "global" perspective that encompasses all uses, but also from a more fine-grained perspective that considers prototypicality arrangements within particular contexts. For example, there may be a different preference of ordering temporal clauses relative to the main clause in the Hebrew Bible when marking reference time versus event time. Further research on this is needed (for an orientation to temporal expressions in BH, see Van der Merwe (1997a, 1997b). For an overview of the Reichenbachian notions of speech time, event time, and reference time, see Borik (2006:121–124). For a summary of revisions of Reichenbach, see Van der Merwe (1997b:504–509 where he describes Couper-Kuhlen's concept of "current reference time") and Cook (2012:10–18). Prototypicality can thus be compared to a fractal pattern in which the contours of the pattern have an ever-increasing complexity the closer in one zooms.

offer comments as to the relative contextual restriction or freedom in the relevant sections in the following chapters. This will allow readers to view bare frequencies more transparently and weigh for themselves the relative impact on contextual frequency based on the syntactic constraints of various uses. In summary, the impact of a use's bare frequency on its prototypicality within the overall semantic potential is mitigated to the degree that it is contextually restricted.

7.4 Chapter summary

With the above approach to corpus design, it is hoped that the data in this study will attain a proximate balance and representativeness of כי usage in the Hebrew Bible. In terms of the analyzing כי usage and quantifying prototypicality, it is anticipated that the approach adopted here will prove useful in distinguishing between more pragmatic and more semantic uses, as well as more and less prototypical semantic uses. This will allow the current research to take principled steps beyond simple taxonomies of uses that do not distinguish between these values, while at the same time acknowledging the gradient and dynamic interface between semantics and pragmatics. I now turn in chapters 8 and 9 to illustrate how כי corresponds to the usage profile of causal connectives laid out in Part Two.

8   The semantics, pragmatics, and syntax of causal כי

> *...die Konjunktion כי... in semantisch-syntaktisch sehr unterschiedlichen Sätzen belegt ist.*
> *"...the conjunction כי... is used in semantically-syntactically very different sentences."*
> Gross (1991:97)

Of all uses of כי in my corpus, approximately 58% are causal (617 of 1,058 tokens). This fits the 58% reported in Bandstra's (1982:159) study of כי in the Pentateuch and Psalms, and the 55% reported in Follingstad's (2001:264) study of כי in Joshua through 2 Kings and Isaiah 1–39. According to the discussion in section 6.1.4, this high frequency, combined with its contextual ubiquity, is a strong indication that this is the most prototypical sense of כי in the Hebrew Bible. However, further reflection on the importance of this use within the overall usage profile of כי will be resumed in chapter 9 when we consider the organization of its polysemy. The focus of this chapter will be on delineating the various causal relations marked by כי, followed by a discussion of their correlations with syntactic form. The following discussion will draw upon the principles argued in Part Two. The categories used in my analysis have already been discussed and illustrated and arguments for their legitimacy have already been presented there and will therefore not be repeated. Rather, my approach will be to simply discuss representative examples of causal כי that illustrate its correlation with the semantic and syntactic categories and functions already established. Drawing on my discussion of Domain Theory, subjectivity, and Mental Space Theory in chapter 3 and their application to causal connectives in chapter 4, I begin in section 8.1 by considering the function of causal כי in each of the domains use, beginning with non-content uses (speech-act, metalinguistic, and epistemic) and then content uses (volitional and nonvolitional). In section 8.2, drawing on my discussion of the coordination-subordination continuum and its relation to domains of use in chapter 5, I will discuss the syntactic reflexes of the semantics of these causal categories. Finally, in section 8.3, I will summarize the semantic-syntactic profile of causal כי, organizing it quantitatively according to prototypicality of use, and qualitatively according to the path of subjectification described in section 6.2. I will also give attention to the principled correlation between non-content domain semantics and more independent syntax on the one hand, and content domain semantics and more dependent syntax on the other. Broadly speaking, more subjective non-content uses are most prototypical for causal כי, and this corresponds to it also having a prototypically more independent syntax.

160

8.1 The semantics of causal כי

Recalling the discussion of causal connectives in chapters 3 and 4, cognitively salient elements in the psychological arrangement of causal categories include the presence or absence of a subject of consciousness, whether the subject of consciousness is identical to the speaker here and now, and whether the subject of consciousness is implicitly profiled in the subjective ground of communication or explicitly profiled and projected onstage in the object of conceptualization. The prototypical construals arising from the possible arrangements of these elements were diagrammed in terms of mental space networks in Figures 4.2–4.6. It is with these concepts and representations in mind that I now discuss the semantics of כי in terms of the causal categories it may be employed to communicate.

8.1.1 Speech-act causal כי

Recalling the definitions, illustrations, and explanations of causal relations in the speech-act domain discussed in Part Two above, these are instances where a causal relationship is drawn, not between the propositional content of two states of affairs in the main and causal clauses, but rather between some speech-act uttered by the speaker as the deictic center of communication, and the motivation for performing that speech-act. Stated differently, the causal clause is not presenting the cause for a state of affairs described in the locutionary content of the main clause, but is providing the ground (either motivation or justification) for the illocutionary force of the main clause.

In terms of past scholarship, this has the most overlap with what has been called the motive clause. As seen in chapter 2, the prominence of the "motive" clause has loomed large in the usage profile of כי. As Muilenburg (1961:150) notes: "Now when one attempts to survey the types or genres of Old Testament literature in the light of the usage of כי, it soon becomes apparent that it is most frequently employed as a word of motivation." Furthermore, an analogous observation holds paradigmatically of all cases of motive clauses, as Muilenburg (1961:151) continues: "It must be borne in mind that the words of motivation are of many kinds, but it is the particle כי above all others which is employed most characteristically." The motive clause itself is of extreme salience in the Hebrew mind as evidenced by its pervasiveness throughout the Hebrew Bible, which order and articulate the very faith of Israel, since "They are intent upon showing the ways of God with men" (Muilenburg 1961:154).

Key characteristics in Muilenburg's descriptions are the function of explanation and the motivation for imperatives. These motive clauses are included in what was described in chapters 3 and 4 as speech-act causal relations. However, in addition to what have traditionally been called motive clauses, speech-act relations also include speech acts of all types on the basis of the fact that they all profile the grounds for some speech-act performed by the speaker as the subject of consciousness and the deictic center of communication in the subjective speech interaction ground. Muilenburg (1961:151) seems to take this into account when, concerning כי most commonly heading motive clauses, he writes, "This, of course, has already become clear in the way it is related to exclamations, imperatives, asseverations, promises and assurances, questions, conditionals, etc." Thus, it is fitting to include all types of motivated speech-acts, not only those that have a formal imperative. This is in contrast to Bandstra's (1982:167–168) distinction between "ground" and "motive" clauses. In many cases, "ground" clauses are speech-acts of promise (e.g. Gen 21:13) or command (e.g. Ex 29:22 with a *weqatal* with imperative force going back to Ex 29:1). However, they are separated from motive clauses simply because they are not related to a main clause with a formally imperative verb.[135] However, as discussed in chapters 3 and 4, the category of speech-act relations is adopted here as more psychologically plausible, since it has been seen to be crosslinguistically pervasive due to common patterns of human conceptualization.

Of all the uses of causal כי in my corpus, nearly half are speech-act relations (290 of 617).[136] This is very similar to Bandstra's (1982:168, 410) count of causal כי in the Pentateuch and Psalms that he identifies as functioning as motive clauses (439 of 854, keeping in mind our

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[135] In other cases, Bandstra (1982:206) does include in the category of motive clauses instances where a non-imperative form is fulfilling an imperative function (e.g. Gen 50:19 with אל + *yiqtol* for a negative imperative).

[136] Speech-act כי occurs in my corpus in the following verses. Note that parenthetic numbers refer to a specific token of כי in a verse with multiple tokens. **Gen** 2:17; 3:14, 17, 19(1-2); 6:13; 7:1, 4; 8:21; 9:6; 13:15, 17; 15:16; 16:11; 18:5, 19; 19:8, 13(1), 14, 22; 20:7(1); 21:10, 12, 17, 18; 22:12(1); 25:30; 26:3, 7(2), 16, 24; 29:21; 30:13, 16, 26, 30; 31:12, 16, 35(2), 36; 32:11, 12, 27(1); 33:10; 11(1-2); 35:17; 37:27; 40:15(1); 42:5, 38; 43:5, 10(1), 16; 44:18, 26, 34; 45:5(2), 20; 46:3, 32, 34; 47:4(2), 15; 48:18; 49:4, 6, 7(1-2); 50:17, 19; **Lev** 2:11; 5:11; 7:25, 34; 8:33, 35; 9:4; 10:7, 12, 13(1-2), 14, 17; 11:42, 44(1-2), 45(1-2); 13:11, 28, 52; 14:13, 48; 16:2, 30; 17:14(1-2); 18:10, 13, 24, 29; 19:2, 8, 20(2), 34; 20:7, 19, 26; 21:6, 7, 8(1-2), 12, 15, 18, 23(1-2); 22:7, 16, 20, 25; 23:28; 24:9, 22; 25:12, 16, 17, 23(1-2), 33, 34, 42, 55; 26:1, 44; **Ezek** 1:20, 21; 2:6(2); 3:5, 27; 7:12, 13(2), 23; 8:17; 12:6; 14:7; 18:32; 20:40; 21:17, 18, 26; 23:37, 40, 45; 24:7; 30:3; 36:9; 40:4; 42:13, 14; 44:2; 48:14; **Ps** 1:6; 3:8; 5:3, 5, 10, 11, 13; 6:3(1-2), 6, 9; 9:13; 10:3; 11:2, 7; 12:2(1-2); 16:1; 17:6; 21:4, 7, 8; 22:9, 12(1-2), 17, 25, 29; 23:4(2); 24:2; 25:5, 6, 11, 16, 19, 20, 21; 26:1, 3; 27:10, 12; 28:5, 6; 30:6; 31:4, 10, 11, 18, 22; 32:4; 33:4, 9; 34:10; 35:7, 20; 36:10; 37:2, 9, 28, 37; 38:3, 19; 39:13; 40:13; 41:5; **1 Chron** 11:19; 12:19; 13:3; 14:15; 15:2(2); 16:25, 26, 33, 34(1-2), 41; 17:2, 5, 25; 21:8, 13, 24(2); 22:8; 28:3, 6, 9, 10, 20; 29:11, 14(3), 15; **2 Chron** 1:9, 10; 2:4, 5(1), 7, 8; 5:13(1-2); 6:18(1); 7:3(1-2), 6; 8:11(2); 11:4; 13:12; 14:10; 15:7; 18:33; 19:6(1), 7; 20:12(1), 15(1), 21; 23:6(2); 25:7; 26:18(2); 28:11, 13(1); 29:6, 11; 30:9(1); 32:7, 15(1); 34:21; 35:23.

differences in categorization). As with the causal use of כי within its overall profile, the fact that speech-act causal כי accounts for the largest portion among the more specific causal uses suggests that it is the most prototypical causal use. This point will be revisited at the end of this chapter when I present the internal organization of the sub-senses of causal כי.

The text in 2 Chron 1:10 provides an illustration of a typical causal כי functioning in the speech-act domain.

(79)   2 Chron 1:10[137]

<table>
<tr>
<td>עַתָּ֗ה חָכְמָ֤ה וּמַדָּע֙ תֶּן־לִ֔י וְאֵצְאָ֛ה לִפְנֵ֥י הָֽעָם־הַזֶּ֖ה וְאָב֑וֹאָה כִּֽי־מִ֣י יִשְׁפֹּ֔ט אֶת־עַמְּךָ֥ הַזֶּ֖ה הַגָּדֽוֹל</td>
<td>Now, grant me wisdom and knowledge so that I might go out and come in before this people. For who can govern this great people of yours?</td>
</tr>
</table>

The main clause to which the כי clause stands related has as its main verb an imperative in which Solomon is requesting that God give him the necessary capabilities to govern Israel.[138] The כי clause then provides the motivation for this request. More specifically, the כי clause is not instructing God on the proper motivation he ought to have for granting such a request. Rather, the כי clause is providing the motivation for the request itself, uttered by Solomon as the implicit subject of consciousness (this reading will be further reinforced when I consider the syntactic reflexes of this type of causal relation in section 8.2.1.1). In terms of subjectivity as described in section 3.3, the construal of this causal relation is subjective, since the relation is between Solomon's request (as the implicit subject of consciousness identical to the speaker here and now in the ground of communication) and the reason for making the request. This sort of subjective construal was schematically represented in Figure 3.3 and diagrammed in terms of mental space networks in Figure 4.2.[139]

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[137] Note that all versification follows the BHS text.

[138] While my analysis does not distinguish between speech-act causal כי with an imperative main clause or some other main clause speech-act, Bandstra's (1982:415) study has shown that the most frequent use of causal כי is in the motivation of imperative main clauses.

[139] Note that in cases where the causal motivation for a speech-act is part of the shared knowledge of the interlocutors, the English gloss *since* may be used. An example of this is Gen 3:15. In this case, the כי clause is also preposed before the main clause to create discourse continuity. These two features—shared background knowledge and discourse continuity reinforced by preposed position—naturally go together since the latter entails the former.

A collocation associated with speech-act causal כי in my corpus is the string כי־על־כן.[140] This appears to possibly be a more a conventionalized instance of the more general form (from right to left): focal element + על + causal כי.[141] That is, some element is fronted in the causal כי clause in order to mark it as the salient element of the causal relationship between the כי clause and the main clause. In the case of the more unitized כי־על־כן, the fronted prepositional phrase follows a speech-act causal כי and adds the nuance that the causal relationship fits shared background knowledge. As explained by Joüon & Muraoka (2006:§170.h fn. 2), "The notion of supposed known causality (Engl. *since*, *seeing that*, Fr. *puisque*, Lat. *quandoquidem*, *siquidem*) is expressed by כִּי־עַל־כֵּן literally *for by that*…" Following Jenni (2005:129), Van der Merwe *et al.* (2017:§40.38) conclude a similar function, writing: "This construction is used by speakers to convince their addressees that the grounds that they construe for a factual situation is correct and that they should maintain the same point of view." Therefore, this construction may be rendered "after all" (e.g. Gen 38:26).

While the function of causally motivating a command is the most common type of speech-act relation communicated by כי, it is also used to motivate other types of speech-acts.[142] For instance, a speech-act causal כי may motivate the asking of a question, as in the following example from 2 Chron 20:12a (cf. the parallel text in 1 Kgs 3:9).[143]

(80)   2 Chron 20:12a

| אֱלֹהֵ֙ינוּ֙ הֲלֹ֣א תִשְׁפָּט־בָּ֔ם כִּ֣י אֵ֥ין בָּ֙נוּ֙ כֹּ֔חַ לִפְנֵ֗י הֶהָמ֤וֹן הָרָב֙ הַזֶּ֔ה הַבָּ֖א עָלֵ֑ינוּ | O our God, will you not judge them? For there is no strength in us before this numerous multitude who are coming out against us. |

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[140] In my corpus, see Gen 18:5; 19:8; 33:10; 38:26.

[141] For other forms where the focal element is something other than על־כן, see, for instance, Ex 34:27 (cf. 2 Sam 13:32); 1 Sam 25:8; Jer 1:7; 32:31; 48:26, 42.

[142] Again, as pointed out in section 4.3, it is important to note that the speech-acts that may operate in this domain also include assertives (i.e. descriptions) as well as other types of speech-acts (e.g. directives, commissives, declaratives/performatives, etc.). As noted above, a taxonomy of illocutionary acts can be found in Searle (1979:1–29). Verstraete (1999) describes speech-act uses with the language of Halliday (1994) and Davies (1979) in terms of "role exchange." Verstraete (1999) explains that the variety of roles taken on by interlocutors in communication often require justification and call for a "speech-act conjunction." Thus, speech-act conjunctions may introduce the justification for any variety of illocutionary forces exerted by the speaker in a variety of interactional roles.

[143] Cf. Gen 31:37 in which a preposed כי appears to motivate the following question; Lev 10:17; Num 11:13; Job 3:11–15 where a speech-act כי motivates several questions and governs multiple clauses. Also compare Bandstra's (1982:138) paraphrase of Ps 8:4 in which the כי clause is taken as the basis for asking a question. Also note Gen 30:13 where the כי clause motivates the exclamative speech act בְּאָשְׁרִי meaning "I am happy!"

164

Here, once again, the כי clause is not providing the basis for the propositional (i.e. locutionary) content of the main clause. Rather, it is motivating the interrogative illocutionary value of the main clause. In other words, this may be paraphrased, "Will you not judge them? I ask that because / this question is relevant because we do not have the power to face them ourselves." Bandstra (1982:164–165) discusses several cases of causal כי following a question in the main clause. However, along with Bandstra (who recognizes several different functions of כי following an interrogative main clause), I do not suppose that this characteristic alone warrants a classification of כי clauses in any exegetically significant or psychologically plausible way. For example, other cases that fit this profile may fall into the content-volitional domain of use (e.g. Gen 20:10-11; 26:9; 31:31; Ex 1:18–19; 18:15; Num 22:28–29) or content-nonvolitional domain of use (e.g. Gen 27:20) because of the more objective construal of the causal relationship, as discussed in section 8.1.4 below.[144] The essential observation here is that we ought not create semantic categories of usage simply on formal grounds unless we can demonstrate a dependent relationship between the semantics and syntax of the construction in question. Such a dependency may be argued. However, such a semantic-syntactic dependency does not appear to hold for all כי clauses following an interrogative main clause.

While ubiquitous across text types, speech-act causal כי is by far the most common connective used for motive clauses in legal texts, even when compared to ו or asyndeton. Not counting ו or asyndeton, כי appears to be used twice as often as all others combined.[145] A typical

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[144] Cases where causal כי follows a question may also overlap with what has been identified as consecutive uses and certain uses identified as כי *recitativum*, both discussed in chapter 9. In fact, such ambiguity will be suggested as a possible seam left over from the development from causal כי to consequential (resultative) כי in section 9.1.2.1.

[145] This generalization is based on a study of 361 motive clauses in the Pentateuch by Sonsino (1980:103). Sonsino (1980:70–74, 103) lists several other connectives, both synthetic and analytical, that are used to introduce motive clauses, though with much less frequency than כי. When we focus on those connectives in his list that overlap with כי in that they may express a notion of causation, we are left with ו (x75, which sometimes may invite a causal interpretation, e.g. Ex 23:9, but is no more than an inferentially enriched reading as discussed in section 7.2 above), אשר (x2), אחרי אשר (only Deut 24:4 which has the nuance of giveness), תחת אשר (only Deut 21:14, 22:29 which seem to have the idea of giveness), על דבר אשר (x4, such as Deut 22:24; 23:5), ב + infinitive construct (only used in Deut Ex 21:8). Sonsino (1980:73) also lists some prepositional phrases, such as those headed by בגלל as in Deut 18:12. However, these would be categorized as content, rather than speech-act relations. This makes sense in light of the fact that prepositional phrases do not posses the interpersonal grammar associated with semantically subjective (and therefore more syntactically independent) causal relationships, as argued in section 5.2 above and applied to the syntactic analysis of causal כי in section 8.2 below. This is why it has been observed that causal prepositions are restricted to the content domain (e.g. Degand 2000:691). Thus, while there are other connectives that may have overlapping usage with the speech-act use of causal כי (as would be expected from a dynamic view of language in which subjectification may exert varying force over the entire system), speech-act כי is not only prototypical within

example of speech-act causal כי in a prescriptive text is found in the casuistic laws such as Lev 5:11 in example (81) below.

(81)   Lev 5:11

<div dir="rtl">

לֹא־יָשִׂים עָלֶיהָ שֶׁמֶן וְלֹא־יִתֵּן עָלֶיהָ לְבֹנָה כִּי חַטָּאת הִיא

</div>

He shall not put oil on it and he shall not put frankincense on it, for it is a sin offering.

Here, the כי clause clearly marks a causal relationship between the command in the main clause and the basis for issuing the command explained in the כי clause. The reason for this prohibition is particularly relevant since, according to the laws for meal offerings in Leviticus 2, these usually are offered with oil and frankincense.[146]

There are also several instances of what appears to have been an original speech-act use of causal כי that have been extracted as song titles. For instance, 2 Chron 7:3 is an example of two such כי clauses serving as the title to a song.[147]

(82)   2 Chron 7:3

<div dir="rtl">

וַיִּכְרְעוּ אַפַּיִם אַרְצָה עַל־הָרִצְפָה וַיִּשְׁתַּחֲוּוּ וְהוֹדוֹת לַיהוָה כִּי טוֹב כִּי לְעוֹלָם חַסְדּוֹ

</div>

…they bowed down face down on the pavement and worshiped and praised Yahweh [with the song] "For he is good, for his covenant faithfulness is everlasting."

Here, the back-to-back כי clauses have been extracted from their larger context to serve as the song's title (cf. Myers 1965:39–40; Dillard 1987:54).[148] However, its function within the songs

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the usage of causal כי, but appears to also be the preferred word to communicate such causal relations out of the repertoire of causal connectives in Hebrew. Cf. Bliboim (2013:411).

[146] The only other meal offering in which oil and frankincense is forbidden is in Num 5:15. Ashley (1993:127) suggests that the connection between these two texts is that they both involve "potential" sin, by which he seems to mean that in both cases there is an element of unawareness of sin involved. In Num 5:15, it is in the context of a test to find out if a man's wife has been unfaithful and in Lev 5:11 it is concerning a sin offering for unknown sin which is later revealed.

[147] For other cases where one or more כי clauses appear to serve as a song title, see Ezra 3:11; 2 Chron 5:13(1–2); 7:3(1–2). Dillard (1987:56) explains the inclusion of this material about worship in 2 Chron 7 (in contrast to the parallel accounts in 1 Kgs 8:54–9:9) as part of the Chronicler's well-known concern for the Levitical musicians.

[148] Braun (1986:193) notes the suggestion that this refrain, characteristic of Chronicles, is derived from Ps 106:1.

in which it appears is the grounds for the call to worship, as in 1 Chron 16:34.[149]

(83)   1 Chron 16:34

<div dir="rtl">הוֹד֤וּ לַֽיהוָה֙ כִּ֣י ט֔וֹב כִּ֥י לְעוֹלָ֖ם חַסְדּֽוֹ</div>

Praise Yahweh, for he is good, for his covenant faithfulness is everlasting.

Here, the back-to-back כי clauses provide the basis for the call to worship.[150] Once again, as with other speech-act uses, it does not seem to be the case that the כי clause is expressing what should motivate the addressees to worship, but rather the basis on which the speaker calls the addressees to worship. Therefore, it is the speaker who is acting as the implicit subject of consciousness whose reasoning and thinking is construed as the source of the causal relation in the subjective ground of communication. Thus, each clause serves a separate illocutionary function: the main clause as the call to worship, and the כי clauses as the speaker's basis for that call to worship.

Of course, these two dimensions (i.e. the addressees' motivation for carrying out the imperative and the speaker's basis for issuing it) often overlap. This is an instance of the commonly-observed overlap between content and non-content domains of use, especially with the content-volitional domain serving as a bridge (recall the discussion of Table 3.1 above). For example, in Ps 147:1, the content of the כי clause appears to work equally well for expressing the addressees' proper motivation for worship as well as for the speaker's motivation for issuing the call to worship. In fact, it may be in such cases of overlap that the process of subjectification described in section 6.2 could facilitate the shift from a more objective construal of a motive clause as an addressee's motivation to a more subjective construal of the motive clause as the speaker's own motivation for performing some speech-act, in this case, a call to worship. When the motivation for such speech acts is given in a causal clause, it is ambiguous whether an objective or subjective construal is intended and thus may serve as the locus of subjectification from a content-volitional to a speech-act use.

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[149] For cases where these clauses function as causal כי in the speech-act domain as the grounds for a call to praise, see Jer 33:11; Ps 106:1; 107:1; 118:1, 29; 136:1; 147:1; 1 Chron 16:34. There are also cases where only one of the back-to-back כי clauses is used, such as 1 Chron 16:41.

[150] That the כי clauses are parallel is indicated by the use of the formula in other places that seem clearly coordinate. For example, in Ps 100:4–5 the same motivation for the call to worship is given, however the second motive clause is not headed by a כי, but asyndetically connected. Furthermore, a third motivation is given and connected by waw, thus making it a string of three coordinate clauses providing the basis for the call to worship.

Another context where this overlap is especially clear is when the speaker performing the speech-act explicitly profiles himself or herself, thus being projected onstage in the object of conceptualization.[151] A potential example of this is Gen 8:21.

(84)   Gen 8:21

<div dir="rtl">

וַיָּ֣רַח יְהוָה֮ אֶת־רֵ֣יחַ הַנִּיחֹחַ֒ וַיֹּ֨אמֶר יְהוָ֜ה אֶל־לִבּ֗וֹ
לֹֽא־אֹ֠סִף לְקַלֵּ֨ל ע֤וֹד אֶת־הָֽאֲדָמָה֙ בַּעֲב֣וּר הָֽאָדָ֔ם
כִּ֠י יֵ֣צֶר לֵ֧ב הָאָדָ֛ם רַ֖ע מִנְּעֻרָ֑יו

</div>

Then Yahweh smelled the appeasing aroma and he said in his heart, "I will not curse the ground again on account of man, for the inclination of man's heart is evil from his youth."

From a more subjective perspective, the כי clause appears to provide Yahweh's motivation for issuing the covenantal promise to not send another deluge upon the earth. Thus, it appears to fit a speech-act use of causal כי. This may be paraphrased along the lines, "I hereby enter into covenantal oath to not send another deluge. My motivation for making that promise is that man's heart is evil from his youth" (the implication being that such events would continuously repeat unless God promised a stay of judgment). The character of the main clause of Yahweh's utterance as a speech-act with performative illocutionary force is clear from its location within the context of the Noaic covenant (Gen 8:20–9:17). However, Yahweh also explicitly profiles himself in the main clause. This facilitates a more objective construal of the causal relation as the motivation of an explicitly profiled action of a character projected on stage in the object of conceptualization. Thus, cases such as this seem to straddle the line between speech-act and content-volitional causal relations.[152] The crucial point illustrated by these examples of fuzzy boundaries is that a causal relationship may be construed in different, yet motivated ways, and it is this metastability of the linguistic system that results in changing, though prototypically ordered, categories. Furthermore, the directionality of these changes is indicated by the process of subjectification, from less to more subjective construal.

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[151] Recall the discussion of Figure 3.5 in section 3.3.2 above illustrating this scenario, as well as the discussion in section 4.5.2 on content-volitional relations.

[152] Cf. Gen 43:5; 44:26 as other speech-act uses where the speaker is explicitly profiled. In these passages, the כי clause seems to be presenting the basis for a resolution arrived at by the speaker, issued as a speech-act and expressed in a conditional construction. Although the speaker in these examples is explicitly profiled, it is difficult to simply read them as content-volitional relations, since the כי clause is motivating the entire conditional construction as a resolution, not simply an objectively construed volitional action in the apodosis.

Thus, a unifying characteristic of speech-act uses of causal כי (which was argued in chapters 3–4 to be crosslinguistically valid as a physiologically plausible category) is that they are providing the ground for what was described in chapter 5 as the speech-function of the main clause.[153] That is, the כי clause, as a separate illocutionary move, is in a relationship of support with the illocutionary force of the main clause speech-act. The causal relationship being communicated is not between two external states of affairs objectively construed, but rather the relationship between some speech-act performed by the speaker, implicitly profiled in the subjective ground of communication, and the basis for the speech-act. Thus, it is not objective events in the external world, but the subject of consciousness identical to the speaker here and now in the deictic center of communication that is construed as the ultimate source of the causal relationship. However, due to prototypicality effects, this usage has conceptual overlap with liminal uses in the content-volitional domain (as well as other domains discussed below) that straddle the boundary between more objective and more subjective construal.

8.1.2   Metalinguistic causal כי

In my corpus, I have identified 147 relatively clear cases of causal כי in the metalinguistic domain of use. This represents approximately 24% of all cases of כי that function as a causal adverbial connective.[154] I have already discussed the semantics of the metalinguistic domain of use in sections 3.2 and 4.6. The following comments will apply those discussions to the use of כי in my corpus. Recalling the previous discussions in chapters 3 and 4, the use of causal כי in the metalinguistic domain refers to those cases where the basis for the use of some linguistic form in the main clause is provided in the כי clause. Like the speech-act use just described, the metalinguistic use also draws a causal relationship between something the speaker says and why he or she says it. Specifically, the causal relation is not construed objectively as holding between two states of affairs in the object of conceptualization. Rather, it is between the linguistic form of

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[153] Recall that in chapter 5, the interpersonal values of a coordinate clause were delineated as modality (the position taken regarding the propositional content of the utterance) and speech-function (assigning responsibility for the modal position to the speaker or the addressee in the declarative, interrogative, or imperative clause types).

[154] These are found at **Gen** 2:5, 23; 4:25(1); 10:25; 13:6; 16:13; 17:5; 20:18; 29:2, 9, 32(2); 32:29(2), 31; 35:18; 36:7; 38:15; 41:51, 52; 42:23(2); 43:32(2); 45:3, 11; 47:13, 20(1), 22; 50:3; **Lev** 18:27; **Ezek** 2:5(1), 7; 10:17; 12:2; 16:14; 23:8; 31:7, 14; 36:8; 41:7; 42:5, 6, 8; 45:14; 47:1, 5; **Ps** 36:3; 38:8; **1 Chron** 1:19; 4:9, 14, 40; 5:1, 9, 20(1), 22(1); 6:39; 7:4; 9:26, 27, 28, 33; 12:20, 22, 23, 40, 41; 15:22; 17:27; 18:10; 19:5; 22:4, 14; 23:28; 24:5; 26:5, 6, 10; 28:5; 29:1(1); **2 Chron** 1:3, 4; 4:18; 5:11, 14; 6:13, 30, 36(2); 7:7(1-2), 9; 8:14; 9:21; 10:1, 15; 11:14(1-2), 17, 21, 22; 12:2, 13, 14; 13:11, 18; 14:5(1-2), 12, 13 (1-2); 15:5, 6, 9(1), 15; 16:9(1), 10; 17:3; 20:9; 21:6; 22:1; 23:8, 14; 24:7, 25; 26:8, 10(1-2), 15(1), 21; 28:13(2), 19(1-2), 21, 27; 29:24, 25, 34, 36; 30:3(1-2), 5, 17, 18(1, 3), 24, 26; 31:10, 18; 32:29; 35:15.

an utterance and the speaker's basis for that choice as the implicitly profiled subject of consciousness and deictic center of communication in the subjective ground of communication, whose reasoning is construed as the source of the causal relationship. However, while the causal clause in a speech-act use provides support for the illocutionary force of an utterance (be it a command, promise, question, etc.), a metalinguistic use of causal כי supports the *form* of the utterance chosen by the speaker. In the following, I will discuss the various linguistic forms that metalinguistic causal כי may motivate. This includes the use of certain words, the choice of names, and more schematic forms of an utterance, such as the use of a particular construction or even the packaging of given and new information. The variety of linguistic elements for which metalinguistic כי may motivate the form, as well as the fact that these types of causal relations are seldom discussed in Biblical Hebrew scholarship, requires this section to be more extensive than others.

Beginning with the most straight-forward type of metalinguistic causal כי, 1 Chron 12:23 illustrates the use of כי to provide the basis for the use of a particular word in the main clause (cf. Claassen 1983:40; BDB 474).

(85)   1 Chron 12:22–23

22וְהֵ֫מָּה עָזְר֤וּ עִם־דָּוִיד֙ עַל־הַגְּד֔וּד כִּֽי־גִבּ֥וֹרֵי חַ֖יִל כֻּלָּ֑ם וַיִּהְי֥וּ שָׂרִ֖ים בַּצָּבָֽא׃ 23כִּ֣י לְעֶת־י֞וֹם בְּי֤וֹם יָבֹ֙אוּ֙ עַל־דָּוִ֣יד לְעָזְרֹ֔וa עַד־לְמַחֲנֶ֥ה גָד֖וֹל כְּמַחֲנֵ֥ה אֱלֹהִֽים׃	22 And they helped David against the raiders, for all of them were mighty men of valor and they were commanders in the army 23 (For they were coming day by day to help David until they were a great camp, like the camp of God).

Curtis & Madsen (1910:200) describe the purpose of verse 23 as follows: "This verse explains the *host*, the last word of the preceding verse." That is, in 1 Chron 12:22, the Chronicler mentions the "army" צבא of David as a description of his companions during the days of his exile from Israel under the kingship of Saul. The following metalinguistic causal כי then provides the justification for the narrator's use of this term to describe David's band of defectors. This justification is made by describing the continuous influx of recruits to David's camp that became so great that it was "like the camp of God." Both Braun (1986:166) and Knoppers (2004:566)

point out that the Chronicler is known to draw a connection between Israel's armies and the army of God (e.g. 2 Chron 13:13–20; 14:7–15; 20:21–23).[155] The use of צבא to prime this connection makes sense in light of the formulaic צבאות יהוה in reference to Yahweh as the commander of the armies of heaven.[156] According to Braun (1986:166), verse 23 explicitly reveals the theological motivation of the Chronicler's description of David's camp, writing, "the degree to which the Chronicler's conception of warfare verges upon that of holy war suggests that the possibility of understanding David's army as nothing less than the army of God ought not be lost here." Thus, both the multitude of recruits and the theologically loaded simile comparing David's camp to the camp of God justifies the use of the term צבא to describe the band of defectors.

A significant number of metalinguistic uses overlap with what Bandstra (1982:166–167) refers to as "etymological" and "etiological" uses of causal כי in which the naming of a person, place, or thing is supported by a כי clause.[157] An example is Gen 17:5 where God renames Abram Abraham and the reason for the choice of the name Abraham is explained in the כי clause.[158]

(86)   Gen 17:5

<table>
<tr><td>וְלֹא־יִקָּרֵא עוֹד אֶת־שִׁמְךָ אַבְרָם וְהָיָה שִׁמְךָ אַבְרָהָם כִּי אַב־הֲמוֹן גּוֹיִם נְתַתִּיךָ</td><td>And no longer will your name be Abram, but your name will be</td></tr>
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[155] Cf. Klein (2006:321). However, without giving reason, Knoppers (2004:566) denies this for 1 Chron 12:23.

[156] On the close relationship between the armies of the Lord and the substantive צבאות, see Van der Woude (1997:1041), Longman (1997:734), and Hartley (1980:750).

[157] Bandstra (1982:166–167) lists Gen 2:23; 3:20; 4:25; 10:25; 11:9; 16:11, 13; 17:5; 21:31; 26:20; 29:32; 30:13; 32:29, 31; 35:7; 41:51, 52. Concerning cases where the etymology is given by the narrator, Berlin (1983b:86) says they are "The most blatant intrusions of the narrator's voice…" Bandstra (1982:167, 186) categorizes Gen 26:22 differently on purely formal grounds since the כי clause grounds a present or future situation, usually indicated by a *yiqtol* (or *weqatal*) verb form in the main clause. For a brief discussion of the four ways these naming texts are formulated, see Miller (2003:109–110). For the distribution in the Hebrew Bible, see Krašovec (2010:67) who notes a concentration in Genesis.

[158] Cf. Gen 2:23; 4:25; 16:11, 13; 29:32(2); 32:29, 31; 41:51, 52; 1 Chron 4:9. Several cases that involve etymological explanations I do not categorize as metalinguistic. For example, I take Gen 3:20; 11:9; 26:20; and 35:7 as content volitional, since the כי clause appears in an indirect quotation with the narrator as the deictic center of communication, signaling that it is being viewed externally and therefore more objectively from the narrator's perspective. This is not problematic, but is simply the result of the fact that the same event may be construed in different ways. For instance, Gen 26:20 and 22 show a near minimal pair where one presents naming with a more objective construal with indirect quotation from the narrator perspective (i.e. content volitional) and the other a more subjective construal with direct quotation from the character perspective (i.e. metalinguistic), respectively. Thus, the same sort of action can be construed with varying degrees of subjectivity. There are also other cases of "etymological" texts where the כי clause does appear to be used metalinguistically, but instead of providing the basis for the name, it provides some background information that justifies the presentation of the main clause as relevant. E.g. Gen 10:25; 1 Chron 1:19. Sparks (2008:325) refers to the כי clause in 1 Chron 1:19 as a historical note. Such "backgrounding" metalinguistic uses will be discussed further below.

> Abraham. For I have made you a
> father of a multitude of nations.

As with other metalinguistic uses, the כי clause presents the speaker's rationale for the metalinguistic choice of a particular form in the main clause—in this case, the name "Abraham." Once again, it is important to note that the relationship signaled by כי is not being objectively construed as some cause and effect structure between two external states of affairs.[159] It would make little sense to paraphrase this with an objective content domain construal along the lines, "The state of affairs of your name being Abraham is caused by the state of affairs of my making you a multitude of nations." Rather, God's own reasoning (anthropomorphically represented) is construed as the source of the causal relation.

Several of these metalinguistic uses in the context of naming seem to have some overlap with speech-act uses. For instance, the כי clause in Gen 17:5 just discussed in example (86) above could be construed as providing the basis for the speech-act of naming as a whole, in addition to the choice of the linguistic form "Abraham." This may be paraphrased, "Your name will be Abraham. The reason I am renaming you and the reason for the name I have chosen is that I have made you a father of many nations." In other words, especially in cases of divine renaming, God's covenantal commitment to bless the biblical character is what calls for the act of renaming by which those promises are sealed and the nature of that covenantal promise also provides the rationale for the particular name chosen. Compare Wenham's (1994:21) comment on Gen 17:5 that the naming itself is "a divinely guaranteed statement about Abraham's identity and future destiny. His very name guarantees that he will father many nations." Therefore, the linguistic choice of name and the promissory speech-act cannot be neatly separated.[160] Thus, the

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[159] This contrasts with Bandstra's (1982:163) categorization of most of these cases under "reason" which he describes as the following: "Causal <u>ky</u> can provide the reason for a given situation." While it would be unfair to critique Bandstra simply because he does not use the categories I employ (which were not yet even formalized), it is worth noting that his category of "cause-reason" uses of כי significantly overlaps with what I have analyzed as the content domain. Therefore, insofar as these categories correspond, I believe my analysis of these uses as metalinguistic offers a more semantically valid interpretation. Bandstra's categories, as note in chapter 2 above, were largely based on common syntactic characteristics, especially verb conjugation in the main and causal clauses. While this offers valuable syntagmatic data, as I have argued in section 5.3, it is the time at which the causal relation is drawn rather than simply the temporal location of the propositional content that is more semantically relevant for the nature of the causal relation. Bandstra (1982:166) also groups 5 of these "etymological" uses under his category of "cause-ground." However, Bandstra's (1982:167) definition of this category is characterized in a way that corresponds to what I have described as a more objective construal.

[160] Cf. Gen 2:23 concerning which Hamilton (1990:180) argues that Adam's reference to his wife being his bone and flesh is "…a covenantal statement of his commitment to her. Thus it would serve as the biblical counterpart to the

basis for the very act of naming may overlap with the reason for the particular name chosen. Of course, such cases of overlapping categories are expected as the result of prototypicality effects (recall the discussion in section 3.4).

While providing the basis for the choice of a single word may be the simplest type of this use, metalinguistic causal כי may also justify the use of more schematic linguistic forms.[161] For example, in Ezek 2:5, the metalinguistic causal כי presents the basis for structuring part of the main utterance as conditional protases.

(87) Ezek 2:5

<table>
<tr>
<td>וְהֵ֙מָּה֙ᵃ אִם־יִשְׁמְע֤וּ וְאִם־יֶחְדָּ֙לוּ֙ כִּ֣י בֵּ֣ית מְרִ֔י הֵ֑מָּה וְיָ֣דְע֔וּ כִּ֥י נָבִ֖יא הָיָ֥הᶜ בְּתוֹכָֽם</td>
<td>As for them, whether they listen or whether they refuse (for they are a rebellious house), they will know that a prophet was among them.</td>
</tr>
</table>

Here, God tells Ezekiel that regardless of their response to his message, his office as prophet will be clear to Israel.[162] The כי clause justifies the form of the first two clauses as conditional protases that suggest the possibility of Israel rejecting Ezekiel's message. A loose paraphrase may be something like, "Whether they listen or not (and I phrase it as an uncertainty

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modern marriage ceremony, 'in weakness [i.e., flesh] and in strength [i.e., bone].'" Cf. Westermann (1994:232). These observations strengthen the interpretation of the כי clause as providing the basis for the illocutionary force of Adam's speech-act in addition to his rationale for the choice of the linguistic form אשה in naming his wife. Cf. Gen 32:29.

[161] To cite just a few examples of uses motivating more schematic elements of the text, the כי clause in Ezek 45:14 motivates the equating of a homer with ten baths (cf. Berlin's 1983b:86 comment on the parallel text in Ex 16:36); in 2 Chron 11:21 it grounds the use of a quantifying phrase; in 2 Chron 28:13(2) it grounds the use of an infinitive compliment. The כי clause in Ezek 47:1 motivates just part of the main clause description about the orientation of the eschatological temple. The causal כי in 1 Chron 17:27 appears to be providing the basis specifically for the temporal duration expressed in the main clause. Several striking examples of the range of linguistic forms a causal clause may provide the basis for are given in Bardzokas's (2012:106) analysis of causal connectives in Modern Greek. In one example, the causal clause provides the basis for the tone of voice with which the preceding utterance is performed: "ΠΗΓΑΙΝΕ! Γιατί πρέπει να φωνάζουμε εδώ. GO: Because (bc2) we have to shout in this place" (bc2 refers to the second sense within the polysemous semantic potential of γιατί). In another example, the presupposed status of an element in the main clause is justified by the causal clause: "Έπαψε να πηγαίνει – γιατί πήγαινε. He stopped going – 'cause he used to go regularly." For a similar use of כי, see 2 Chron 11:21 where the given status of "all his wives and concubines" is justified with the כי clause "for he took 18 wives and 60 concubines." Barzokas groups these uses together with cases where the use of a particular word is justified by a causal clause—i.e. metalinguistic uses. It is also significant that not all causal connectives can perform this function, but only those with a more semantically subjective and syntactically less-dependent usage profile such as γιατί. Thus, not only the use of a particular lexeme, but the various elements of an utterance's linguistic form may be justified by a causal clause. See BDB (473–474) for a list of various other elements of a text that may be motivated by causal כי.

[162] Prophetic preoccupation with an amicable response from their audience is well known in the Hebrew Bible.

because they are known to not always listen), they will know you are a prophet."[163] The fact that this is a parenthetical comment justifying the metalinguistic choice to structure the first two clauses as conditional protases is also reflected in the various translations that orthographically mark off the כי clause as a parenthetical statement (e.g. RSV, NASB, ESV, NIV, NET, NLT). The NLT especially brings out the subjective construal of the causal clause with the rendering, "And whether they listen or refuse to listen—for remember, they are rebels—at least they will know they have had a prophet among them." Furthermore, the syntactic position of this metalinguistic use, as will be pointed out again in section 8.2 below, is especially suited for such cases where the כי clause is providing the justification for a specific form within the main utterance and therefore appears immediately after that form.

Metalinguistic uses are also found where additional background information is required to make the previous statement relevant or felicitous according to normal conventions of communication. 74 of the 147 cases of metalinguistic causal כי identified in my corpus can be read in this way.[164] For instance, in Gen 29:9, we find an example of causal כי that serves as the justification for the apparently unexpected description of Rachel as the one attending her father's sheep.

(88)   Gen 29:9

עוֹדֶ֖נּוּ מְדַבֵּ֣ר עִמָּ֑ם וְרָחֵ֣ל ׀ בָּ֗אָה עִם־הַצֹּאן֙ אֲשֶׁ֣ר לְאָבִ֔יהָ כִּ֥י רֹעָ֖ה הִֽוא	While he was still speaking with them, Rachel was approaching with her father's flock (for she was a shepherdess).

Several commentators note the unusualness of this arrangement, even though it is not altogether unknown at that time. Walton *et al.* (2000:61) write, "While it is not uncommon today for women and small children to herd Bedouin flocks, in antiquity women would have done so only

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[163] Cf. 2 Chron 6:36 where the use of a temporal כי clause to describe Israel's inevitable disobedience is justified with a metalinguistic causal כי explaining why it is inevitable.
[164] **Gen** 2:5; 13:6; 20:18; 29:2, 9; 35:18; 36:7; 38:15; 42:23(2); 43:32(2); 45:3, 11; 47:13, 20(1), 22; 50:3; **Ezek** 10:17; 12:2; 23:8; 31:7, 14; 36:8; 41:7; 42:5, 6, 8; 47:5; **Ps** 36:3; 38:8; **1 Chron** 4:40; 5:22(1); 6:39; 7:4; 9:26, 28, 33; 15:22; 18:10, 14; 10:15; 11:14(1); 14:13(2); 15:9(1); 16:10; 22:1; 23:8, 14; 24:7, 25; 26:8, 10(1-2), 15(1), 21; 28:19(1-2), 21, 27; 29:24, 25, 34, 36; 30:3(1-2), 5, 17, 18(1, 3), 24, 26; 31:10, 18; 32:29; 35:15.

when the household had no sons" (cf. Skinner 1910:362; Westermann 1995:465).[165]

Commenting on the כי clause "for she was a shepherdess" in verse 9, Sarna (1989:202) writes, "The gloss is probably occasioned by the rarity of women in this occupation in Israel." Thus, in anticipation of the audience finding this unusual, the function of this כי clause is to justify the narrator's matter-of-fact description of Rachel tending to the family flock.[166] Van der Merwe's (1993:40–41) comments on Gen 29:9 are especially cogent:

> כי is used here to preface information because, in the words of Schiffren [sic] (1987: 207), "the status of that information as shared background knowledge is uncertain" and because "that information is important for understanding the adjacent talk." We refer to this type of causal relationship as the *(unshared) knowledge-based causal relationships.*

That is, the way the main clause information is presented infelicitously suggests that Jacob and Rachel's meeting at the well is expected and fits well with the audiences presumed background knowledge. However, this is not the case. Therefore, the purpose of the כי clause is to justify this by retroactively providing the necessary background knowledge (cf. Claassen 1983:41).[167]

Cases like these would be similar to someone telling a story about their roommate and saying, "As soon as he came inside, he took his bloody cloths to the laundry room. Oh, by the way, I'm describing that as a normal situation because he works at a butcher shop and his work cloths always get blood on them." A roommate having bloody cloths only receives the proper interpretation in light of the fact that he is a butcher. In other words, there are semantic frames of encyclopedic knowledge within which certain descriptions make sense. Recalling the concept of the RESTAURANT frame discussed in section 4.2, if someone is telling a story about a restaurant experience, the restaurant frame and all it entails is already activated as soon as the

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[165] Commentators generally note the similar text in Exodus 2:16, which says that Jethro's daughters also tended the flocks. Skinner (1910:362) and Sarna (1989:202) note that this is known to have been practiced especially among Sinai Bedouin. Speiser (2008:223) also notes this practice as evidenced in the Nuzi records.

[166] Note that Gen 29:6 had already mentioned that Rachel was with the sheep. There, it is a direct quote from the other shepherds. Thus, it seems that the narrator especially felt the need to justify his presentation of the situation, but not necessarily the character's. However, this variety of metalinguistic כי is also used by the narrator to justify material in the direct quotation of a character, as in Judg 13:16.

[167] In cases where actions of narrative characters are in view, it is sometimes difficult to tell whether a causal כי is presenting the character's motivation for performing the action in a content volitional relation or whether it is presenting the narrator's motivation for presenting the narrative information in a certain way with a metalinguistic relation. To give just a couple of examples, in 2 Chron 22:6 and 22:3 and 4, it is hard to tell whether the כי clauses are presenting the character's motivation for what they did, or the narrator's own rationale for the relevance of the character's actions in the flow of narrative. Recalling the role of comma intonation in the interpretation of causal relations discussed in chapter 5 above, the use of the *Atnach* to separate the main clauses form the כי clauses may fit best with a metalinguistic reading of כי in these cases. This reading may also make more sense in light of the highly interpretive history the Chronicler is known for, which is infused with theologically charged narrator comments.

word "restaurant" is used (or some equivalent, like, "We went out to eat the other day…"). With this frame activated, the speaker does not need to pedantically introduce elements that are already established in that frame, such as waiters (e.g. "We went to the restaurant. There were waiters there. Then one of the waiters said…"). However, if the restaurant frame is not active and someone begins talking about "*the* waiter", this would be regarded as infelicitous and require justification. We could imagine someone saying, "Yesterday I had the worst experience. The waiter (because me and some friends were trying out that new Thai restaurant) gave us the worst service I have ever had." Similarly, the fact that Rachel came walking with her father's sheep to the well requires the shepherding frame (especially since shepherdesses were more rare) in order to make that information felicitous. Therefore, the narrator, anticipating the unexpectedness with which the audience would view Jacob meeting Rachel at the daily flock watering, justifies it on the basis of the fact that she was indeed a shepherdess. Thus, metalinguistic causal כי is also used to justify the presentation of a previous utterance by providing the necessary background information that makes it relevant and felicitous. In these cases, it is not the choice of a single word or particular construction that requires justification (as in examples 89–90 above). Rather, the felicity of the way the information is communicated is what requires justification.[168]

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[168] The background information supplied by the כי clause may also be already given information that the narrator considers in need of reactivation. For example, the כי clause in 2 Chron 8:14 appears to be used to reactivate previously mentioned information from 1 Chron 24:1–19 which frames and justifies the felicity of the preceding material in 2 Chron 8:14. Compare the כי clause in 2 Chron 1:3 that reactivates background information that was already given in 1 Chron 16:39; 21:9. Also consider 2 Chron 29:34. There we are told that not enough priests consecrated themselves. Then in 2 Chronicles 30:3(2) and again in 2 Chron 30:17–18 we are reminded of this in a backgrounding metalinguistic כי clause that makes sense of the matrix clause information in light of this. Then in 2 Chron 31:18, we are once again reminded of the faithfulness of the Levites to consecrate themselves as background information that makes sense of the fact that all of their families are able to enroll in partaking of the Passover sacrifices. To briefly mention just a few other variations within this metalinguistic use, in 1 Chron 6:39, (cf. Josh 21:4, 10) the formal order in which allotments are described is justified by the order in which they were given. In 1 Chron 7:4, the כי clause appears to give the necessarily background knowledge to make sense of a large number of descendants (cf. 1 Chron 26:4–5). In other cases, the כי clause is simply tautological unless we interpret it as a metalinguistic causal relation providing background knowledge to make the previous statement relevant. See, for example, Num 12:1 which is rendered in the ESV with "Miriam and Aaron spoke against Moses because of the Cushite woman whom he had married, for he had married a Cushite woman." The causal clause is purely redundant unless interpreted as the narrator's addition for the benefit of the audience. While the ethnicity of Moses' wife can be derived from Ex 3:21, it appears to be given her by the narrator to ensure the audience shares the background information necessary for the presentation of the main clause to be felicitous and make sense. The comment on this verse in Sifre Num 99.4 appears to support this reading since it too seeks for some additional meaning the narrator wishes to impart by this seemingly redundant כי clause. As translated in Pérez Fernández (1997:194–195), "Why does it say this again? Was it not already said, On account of the Ethiopian woman [Nm 12.la]? So, what teaching is provided by the text, For he had married an Ethiopian woman." Berlin (1983b:102) explains that the same information given twice "…is not redundant, because it signals that an additional point of view is entering the narrative." In this case, the first mention that Moses' wife was a Cushite is the perspective of Miriam and Aaron,

The recognition of such uses of metalinguistic causal כי to justify more schematic elements of the preceding utterance provides a more nuanced, typologically grounded, and psychologically plausible analysis of the more "loosely connected" causal uses identified in previous work on כי. Specifically, the above analysis appears to give some further clarity to Gesenius' observation that "Sometimes the causal power of this particle is not immediately obvious, but by a careful examination of the connection of the sentences, it is found to exist" (Gesenius & Tregelles 1846:392). The above analysis of these more abstract causal relations may also develop and unify the uses of כי in what Thorion (1984:19–21) called an *Erläuterungssatz* (explanatory clause) and a *parenthetischer Satz* (parenthetic clause). The first is described as only loosely connected to the preceding text and syntactically independent.[169] The second is described as cases of causal כי where relevant information unknown to the audience is supplied, similar to Van der Merwe's (1993) category of "(unshared) knowledge-based causal relationships" just noted.

In terms of these more loosely related uses of causal כי, Follingstad's (2001:46) analysis agrees with the one presented here when he writes: "A typical 'causal' occurrence of כי in narrative, for example, will either be an example of a 'positive assertion' made by the narrator relative to the reader directly, or a 'semi-indirect' representation of a character's thoughts, if the כי clause is embedded to the character." However, he then adds, "In either case, the causal relationship is **not** explicitly marked by כי." In other words, Follingstad rightly recognizes in uses of כי in causal contexts the marking of viewpoint, whether narrator or character, in line with a subjective domain of use interpreted with reference to a subject of consciousness. However, as noted in chapters 3 and 6, Follingstad's impermeable distinction between semantics and pragmatics is problematic, since natural language usage witnesses consistent patters in which pragmatic implicatures may become progressively entrenched and semanticized. Thus, the present analysis affirms Follingstad's insight concerning the ability of causal כי to deictically mark the perspective of a subject of consciousness, despite our differences concerning the semantic status of its causal meaning.

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objectively construed. The second mention in the כי clause is from the perspective of the narrator subjectively construed in the ground of communication between narrator and audience.

[169] As quoted above in chapter 2, *Ein Erläuterungssatz scheint nicht dem Vorangegangenen untergeordnet zu sein. Die Verbindung ist ziemlich locker,* "An explanatory clause does not appear to be subordinate to the previous one. The connection is quite loose" (Thorion 1984:19). An example of such a non-subordinate use of כי he discusses is the second token in 1 Sam 16:7.

Lastly, it should be noted that such backgrounding uses are most often found in Chronicles.[170] This is unsurprising in light of the Chroniclers well-known penchant for theologically interpretive history. As Dillard (1987:xviii) points out, "Chronicles is not only a writing of history; it is a tract." More specifically, there is a pervasive theme of reward and punishment in the Chronicler's history.[171] An illustration of this is the following.

(89)   2 Chron 10:15

<table>
<tr>
<td>וְלֹא־שָׁמַע הַמֶּלֶךְ אֶל־הָעָם כִּי־הָיְתָה
נְסִבָּה מֵעִם הָאֱלֹהִים לְמַעַן הָקִים יְהוָה אֶת־
דְּבָרוֹ אֲשֶׁר דִּבֶּר בְּיַד אֲחִיָּהוּ הַשִּׁלוֹנִי אֶל־יָרָבְעָם
בֶּן־נְבָט</td>
<td>So the king did not listen to the people. For it was the turn of affairs from God in order that the Lord might establish his word which he spoke through Ahijah the Shilonite to Jeroboam the son of Nebat.</td>
</tr>
</table>

Here, we are just told that Solomon's son Rehoboam refused to follow wise counsel and instead followed the foolish counsel of his peers as a fulfillment of God's purpose to divide the kingdom (cf. 1 Kgs 11:29–39).[172] The כי clause cannot be interpreted as Rehoboam's volitional motivation for his action (i.e. as a content-volitional relation), much less as some purely objective cause-and-effect structure of the natural world (i.e. as a content nonvolitional relation). It also does not seem to fit that the כי clause provides the basis for some illocutionary force in the main clause (i.e. speech-act relation), much less the basis for some epistemic stance taken in the main clause (i.e. an epistemic relation). Rather, with the כי clause, the Chronicler explains why the main clause is theologically relevant within this carefully structured interpretive history.[173]

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[170] Out of the 62 cases where a metalinguistic causal כי introduces background information, 43 are in Chronicles. The others are split between Genesis and Ezekiel.

[171] For an extensive treatment of this, see Dillard (1984) where he notes that, despite the incredible controversies surrounding Chronicles on various issues, on this point there is near consensus. Furthermore, Dillard shows how this concern directly affects the way the Chronicler shaped the text of the book. Cf. Kalimi (1997).

[172] The Chronicler appears to assume the actual exchange between Ahijah and Jeroboam to be common knowledge (see 2 Chron 9:29). Cf. Thompson (1994:251).

[173] Cf. 2 Chron 11:17; 12:2, 14. In 2 Chron 13:11, the Chronicler uses a direct quote of a character rather than a narrator comment to give an explanation in light of which the preceding material is theologically relevant. An often-repeated explanation central to the theology of Chronicles is whether the king and the people sought the Lord. Another example is 2 Chron 24:16 where the כי clause provides the theological explanation for Jehoiada's burial. That the nature of a person's burial is theologically significant can be seen in 2 Kgs 9:10 where Jezebel is deprived burial because of her wickedness. Compare 2 Chron 21:20; 24:25; 2 Kgs 9:34; Jer 8:2; 14:16; 16:14. As Dillard (1987:193) explains in his comments on 2 Chron 24:25-26, "The Chronicler commonly uses burial notices to exhibit a theme important to him: righteous kings are buried in honor, while the ignominy of the unrighteous extends even to their internment (16:14; 21:19–20; 26:23; 28:27)." These uses, therefore, are also more subjective and

The precise nature of the causal relations discussed in this section and the exact elements of the communicative event they connect can be complex and draw on the multifaceted components of human cognition and sociolinguistic norms of communication. This however, is to be expected when approaching a complex and dynamic system such as communication. In fact, conversation analysis reveals that explanations (such as those offered in causal clauses) are ubiquitous to human communication and are constantly employed to account for the most mundane elements of interaction in the constant task of grounding its relevance and felicity according to set conventions. As Heritage (1998:141) explains: "Ordinary explanations of action, no matter how trivial and apparently inconsequential, thus lay a crucial role in maintaining the foundations of social organization itself." Thus, human communication naturally calls for repeated "accounts" or explanations that justify the way that communicative event is unfolding. A common tool to supply such accounts is causal clauses. Crucially, these accounts are given for various elements of the communicative event, "no matter how trivial and apparently inconsequential." This complexity should cause us to be far more cautious before dismissing a causal meaning simply because it does not fit into the more simplistic causal relations with which we are used to describing language.[174] Indeed, it is precisely these uses of causal כי to justify more abstract and interpersonal elements of the communicative event that seem to contribute to the semantic bleaching of כי into a use as a more schematic connective simply used as a marker of continuing discourse (see section 9.2.2 when I discuss כי as a discourse marker).

8.1.3   Epistemic causal כי

I now turn to the use of causal כי to provide the basis for an epistemic stance taken in the main clause. I have counted 58 relatively clear cases of causal כי being used in the epistemic domain that occur throughout each book in my corpus. This epistemic use amounts to about 9.5% of all causal כי clauses.[175] Recalling the discussion of epistemic causal relation in sections 3.2 and 4.4, the כי clause justifies, not the illocutionary force of a main clause speech act, nor the

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interpersonally oriented. The Chronicler often interjects these theological explanations as part of the narrator-audience interaction.

[174] For example, Davies (2004:55–60) pits an interpretation of the כי clause in Ex 19:5b as causal against an interpretation of it as an explanation. However, there is no reason to see these as being at odds since, as I have described in this section, explanations are often causal.

[175] **Gen** 3:5(1); 6:12; 28:15; 29:34; 30:20; 31:15, 30; 34:7, 19; 37:17; 38:26; 44:32; 45:6; **Lev** 11:4, 5, 6, 7; **Ezek** 3:7(1), 21(2); 7:19; 12:24, 25(1); 18:18; 21:37; 23:34; 26:5, 14; 28:10; 30:9; 33:31; 39:5, 10; 47:9, 12; **Ps** 9:5, 11, 19; 10:14; 16:8, 10; 18:28, 29, 30, 32; 21:13; 31:14; 37:17, 20, 24(2); 41:12(2); **1 Chron** 22:18; **2 Chron** 14:6; 16:9(2); 19:3; 25:8(2), 16(2), 20(1); 30:9(2).

metalinguistic choice of some form, but the epistemic modality of the main clause adopted by the speaker. However, like speech-act and metalinguistic uses, epistemic causal כי is a subjective construal of the causal relationship that takes the speaker as the subject of consciousness in the deictic center of communication whose rationality is seen as the source of the causal relationship, rather than some objective cause-and-effect structure between states of affairs in the external world as in the content domains of use.[176] This corresponds to Claassen's (1983) evidential כי (citing 1 Kgs 1:24–25; Job 14:7, *inter alia*) and Thorion's (1984) כי *des Beweises* (citing Gen 31:15). An especially clear example of this use is in 2 Chron 25:16 in the second כי clause.

(90)   2 Chron 25:16

וַיֹּ֣אמֶר יָדַ֗עְתִּי כִּֽי־יָעַ֤ץ אֱלֹהִים֙ לְהַשְׁחִיתֶ֔ךָ כִּֽי־עָשִׂ֣יתָ זֹּ֔את וְלֹ֥א שָׁמַ֖עְתָּ לַעֲצָתִֽי

But he said, "I know that God has planned to destroy you, because you have done this and not listened to my advice."

In the context, a prophet has been sent to Amaziah, the king of Judah, to confront him about his idolatrous practices. However, as the prophet was delivering his message, Amaziah does not listen and commands him to stop speaking under threat of death. The prophet then takes this as evidence that God has determined to destroy Amaziah. As seen in 2 Chron 12:1–7, heeding the warning of God's prophet results in a stay of judgment.[177] However, persisting results in retribution. The prophet in this text is drawing on his background knowledge of the cause-and-effect structure of the world to come to an epistemic conclusion of what this means for Amaziah. Thus, the כי clause presents the evidential justification for the epistemic stance taken in the main clause.

The epistemic use here is especially clear because the prophet explicitly says, "I know that…" (cf. Gen 30:29–30). This is significant in that it highlights the potential ambiguity between epistemic uses and content uses. In many cases, the epistemic knowledge claimed by the speaker is not explicitly introduced with something like יָדַעְתִּי כִּי. If the text simply read, "God has

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[176] Though, of course, the epistemic causal relations we draw are based on our background knowledge of such cause-and-effect structures in the world. In fact, it is the basis of our epistemic stances in our background knowledge of the way the world works that contributes in some cases to a fuzzy boundary between the epistemic and content domains of use, as will be discussed below concerning Gen 29:34 in example (92).

[177] In that text, the Chronicler records the account of when Rehoboam heeded the words of the prophet Shemaiah for which God spared Judah from being completely destroyed by Pharaoh Shishak's military campaign.

planned to destroy you because you have done this" it could be taken as expressing God's motivation for taking punitive action upon Amaziah (i.e. a content-volitional relation, cf. Gen 29:34 discussed below). If the main clause did not express the volitional action of a character, then it could be taken as a content nonvolitional relation. In ambiguous cases, context and syntactic considerations adjudicate between different readings.[178] Therefore, when it comes to polysemous causal connectives that may function within both content and non-content domains, some tokens may admit multiple possible readings (especially in a written text without definitive indications of intonation). However, in keeping with the semantic uniqueness principle described in section 7.2 above, this is clearly a fully semanticized use of כי since it is found as the only interpretation, not simply as an interpretively enriched inference existing alongside a more objective content domain interpretation.

In certain cases, epistemic causal כי can be best glossed in English with "since." As noted at several points in chapters 3 and 5 above, the causal use of "since" has come to constrain more subjective interpretations, especially epistemic. And in chapter 5, it was note that its tendency to be preposed before the main clause corresponds to its nuance of giveness. Thus, in cases with one or both of these characteristics, "since" is an appropriate gloss. An illustration of this is Ps 19:8 quoted in the following example.[179]

(91)   Ps 16:8

שִׁוִּיתִי יְהוָה לְנֶגְדִּי תָמֵיד כִּי מִימִינִי בַּל־אֶמּוֹט	I have set the LORD before me continually, since [he is at] my right hand, I will not be shaken.

Here, the causal כי is presented as the evidence for the psalmist's confidence in the statement that he will not be shaken. The giveness implied is two-fold. Firstly, there is a giveness in the discourse continuity with the immediately preceding clause in which Yahweh's presence has already been established. Secondly, there is also a giveness in the assumption that the audience takes for granted that Yahweh's presence is good evidence for the conclusion that the psalmist

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[178] In this case, the *zaqef qaton* separating the causal כי from the rest of the sentence may offer a clue in terms of comma intonation and therefore suggest a more subjective reading. This will be discussed further in section 8.2.

[179] Cf. Ezek 3:7(1); 18:18.

will not be shaken. That is, the validity of that causal relation upon which the epistemic stance is grounded is taken to be common knowledge, or at least indefeasible knowledge.[180]

Concerning the epistemic stance taken in this verse, Craigie & Tate (2004:157) explain that it is based "upon the fact that the Lord is his 'right hand' (v 8b), holding him firmly through the tremors that seek to shake him into death. With such confidence, the psalmist rejoices and exults."[181] Briggs & Briggs (1906:121) gloss the כי here as "*since*" and paraphrase it as, "This is the reason why, *I shall not be moved*], the usual expression of confidence in God…" Kraus (1993:239) writes, "…the petitioner lives in the certainty of the perseverance of Yahweh bestowed on him."[182] However, these additional nuances appear to be heavily context-dependent and are therefore probably best taken as an inferentially enriched interpretation, rather than a reading that כי itself constrains. Such inferences would need to be more strongly entrenched by some means (e.g. relative frequency) before regarding them as clearly semantic and uniquely constrained by כי itself.

In some cases, epistemic כי may not be immediately obvious apart from the broader context of the discourse. For example, Ezek 12:21–25 (cf. Ezek 33:33) presents a theme restated throughout the prophecy that despite Israel's disbelief of divine oracles of judgment, they are indeed true, since they come from Yahweh. Allen (1994:199) describes this as the "general theological statement that Yahweh always honors his authentic messages." This is made clear by the first כי clause in Ezek 12:25: כִּי אֲנִי יְהוָה.[183] As explained by Block (1997:390), "The particle kî introduces the grounds for Yahweh's declaration of the imminent fulfillment of the prophetic word and the end of empty prophecy—his own person." This sets up many of the epistemic causal כי clauses in the rest of the book where the veracity of the oracle is supported with some version the clause כִּי אֲנִי יְהוָה דִּבַּרְתִּי (e.g. Ezek 21:37; 23:34; 28:10; 39:5).

Finally, recalling the discussion in section 4.4 above on abductive versus non-abductive epistemic relations, the later may be ambiguous between epistemic and content interpretations.

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[180] See Lascarides & Oberlander (1992) on (in)defeasible knowledge and causal relationships (cf. Oversteegen 2005). Of course, this should not be identified with the Cartesian notion of indefeasible knowledge (Plantinga 1993:112–113).

[181] Cf. Gerstenberger (1988:91): "V. 8 expresses unshakable confidence in the presence of Yahweh."

[182] The JPS1985 and NIV miss out on making this causal relationship explicit (though it may be slightly more apparent in the NIV). However, such an omission actually mitigates ease of interpretation by removing an element that facilitates cognitive processing, recall, and comprehension. Thus, Bratcher & Reyburn (1991:145) appropriately advise: "The relation between the two parts of the last line (*because*) should be formally stated or clearly implied."

[183] The following כי clause may be causal (cf. LXX, KJV, JPS1917, NIV) or adversative (cf. ESV, NCV).

That is, with abductive epistemic relations, the direction of causality is the opposite of that seen in the cause-and-effect structure of the world. As discussed in section 4.4, someone might say "The neighbors are at home, because I can see their lights on." Here, our knowledge of causal relationships in the world doesn't fit this sequence and it leads us to interpret the causal clause as the basis for an epistemic judgment, rather than a state of affairs. However, the direction of an epistemic inference may also correspond to the direction of real-world causality. In this case, especially apart from intonation, the relation may be ambiguous between an epistemic and content domain interpretation. An example of this can be seen in Gen 29:34 in which Jacob's wife Leah is reflecting on his feelings for her in light of the children she has had with him.

(92)   Gen 29:34

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וַתַּ֣הַר עוֹד֮ וַתֵּ֣לֶד בֵּן֒ וַתֹּ֗אמֶר עַתָּ֤ה הַפַּ֙עַם֙ יִלָּוֶ֤ה אִישִׁי֙ אֵלַ֔י כִּֽי־יָלַ֥דְתִּי ל֖וֹ שְׁלֹשָׁ֣ה בָנִ֑ים

</div>

And she conceived again and gave birth to a son. And she said, "Now this time my husband will be attached to me, because I have born him three sons."

Here, an epistemic reading of the causal כי clause would take it as the basis for Leah's confidence that her relationship with Jacob will now be closer. However, the direction of causality also fits background knowledge of external cause-effect relations. That is, especially in the original context, fertility was known to cause a husband to look on his wife favorably. Thus, a content volitional interpretation becomes available. Namely, "My husband will look on me favorably because I have given him several sons." Other indicators may favor one reading over another. The adjunct עַתָּה הַפַּעַם seems to facilitate an interpretation of the main clause as an epistemic stance, as well as perhaps the comma intonation possibly indicated by the *zaqef qaton* separating it from the כי clause. This creates a very fuzzy boundary between the construal of content and epistemic causal relations. In fact, it may be in these contexts that originally content-volitional uses became reinterpreted as epistemic uses in the process of subjectification discussed in section 6.2 above. It is to these content uses that I now turn.

8.1.4   Content causal כי

As discussed in sections 3.2, 3.3, and 4.5 above, a major distinction in the possible construals of causal (as well as other interclausal) relationships is between non-content domain

interpretations (just discussed above) and content domain interpretations. The major difference is that in the former, the causal relation must be interpreted with reference to a subject of consciousness identical to the speaker here-and-now as the deictic center of the subjective ground of communication. Content domain causal relations may be interpreted with a character subject of subject of consciousness distinct from the speaker as the deictic center in the here-and-now of communication (content-volitional domain) or no subject of consciousness at all (content nonvolitional domain). Importantly, as already indicated at several points in the preceding discussion, this internal distinction within content uses (one more objective and one more subjective) stands as a clear link between content and non-content uses that may serve as a bridge that can potentially facilitate the subjectification of an adverbial connective such as כי, causing it to become a more prototypically subjective causal connective. I will first consider content nonvolitional uses of causal כי, then content volitional uses.

8.1.4.1 *Content volitional causal* כי

In my corpus, I have identified 109 cases where causal כי appears to be used in the content volitional domain. This amounts to around 17.5% of the cases of causal כי.[184] Recalling the discussion in sections 3.2, 3.3, 4.5.2, in content volitional relations the subject of consciousness is not identical to the speaker here-and-now in the deictic center of communication. Rather, the construal of these causal relations is a case of character subjectivity in which a character's mental space network is projected within the content domain and explicitly profiled in the object of conceptualization. An example of this can be seen in Gen 19:30 below.

(93)   Gen 19:30

| וַיַּ֩עַל֩ ל֨וֹט מִצּ֜וֹעַר וַיֵּ֣שֶׁב בָּהָ֗ר וּשְׁתֵּ֤י בְנֹתָיו֙ עִמּ֔וֹ כִּ֥י יָרֵ֖א לָשֶׁ֣בֶת בְּצ֑וֹעַר וַיֵּ֙שֶׁב֙ בַּמְּעָרָ֔ה ה֖וּא וּשְׁתֵּ֥י בְנֹתָֽיו | Then Lot went up from Zoar and dwelled in the hill (area), and his two daughters with him, because he was afraid to dwell in Zoar, so he dwelled |

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[184] These occur at **Gen** 2:3; 3:10, 20; 4:25(2); 6:7(1); 11:9; 12:10; 18:15(1), 20(1-2); 19:13(2), 30; 20:11; 21:13, 16, 30(1), 31; 25:21, 28; 26:7(1), 9, 20, 22; 27:23; 28:11; 29:32(1), 33(1); 31:31(1-2); 32:21, 33; 34:14; 35:7; 37:3, 35; 38:11, 14(1), 16(1); 41:49(2), 57; 42:4; 43:18, 25(1), 30, 32(1); 47:4(1), 20 (2); **Lev** 17:11(1-2); 20:3, 23; **Ezek** 3:7(2), 26; 7:14; 8:12; 9:9; 20:16; **Ps** 3:6; 4:9; 13:6; 18:18, 20, 22, 23; 25:15; 27:5; 30:2; 31:5; 33:21(1-2); 37:13(1), 40; 38:17, 18; 39:10; **1 Chron** 4:41; 5:20(1); 7:23; 10:4; 13:4, 9; 15:13(1-2); 19:2, 3; 21:6, 30; 23:25; 27:23; 29:9; **2 Chron** 8:11(1); 18:7(1); 20:25, 26, 27; 21:3; 22:6(2), 9, 11; 24:16, 20, 24(2); 25:20(2); 26:20, 23; 28:23; 32:25; 35:14; 36:15.

in a cave, he and his two daughters.

Here, the כי clause presents Lot's motivation for dwelling in a cave in the hills rather than in the city Zoar. Thus, what is profiled is the character Lot's subjective reasoning for his action to dwell in a cave in the hills. This is not viewed from Lot's eyes, but from the narrator perspective as the deictic center of communication. Thus, the locus of the causal relationship is removed from the subjective ground of communication and profiled onstage in the object of conceptualization.

A construction that seems to be used most often with content volitional causal relations can be seen in the following example from Gen 32:33 where a result clause headed by על-כן is followed by a causal כי clause.[185] This could be schematically represented as "A, therefore volitional action B, because A."

(94)   Gen 32:33

<div dir="rtl">

עַל־כֵּ֡ן לֹֽא־יֹאכְל֨וּ בְנֵֽי־יִשְׂרָאֵ֜ל אֶת־גִּ֣יד הַנָּשֶׁ֗ה אֲשֶׁר֙ עַל־כַּ֣ף הַיָּרֵ֔ךְ עַ֖ד הַיֹּ֣ום הַזֶּ֑ה כִּ֤י נָגַע֙ בְּכַף־יֶ֣רֶךְ יַעֲקֹ֔ב בְּגִ֖יד הַנָּשֶֽׁה
</div>

Therefore, the sons of Israel do not eat the tendon of the thigh that is on the hip socket to this day, because he struck Jacob's hip socket in the tendon of the thigh.

The motivation for such a construction seems to be the following. The basis for the Israelites custom to not eat that part of an animal (i.e. because that is where Jacob was struck) is given several verses earlier in the narrative at Gen 32:25. The כי clause then makes it clear what part of the preceding narrative is the basis for the volitional action described in the clause headed by על-כן. In other words, there are several other elements mentioned between the cause (the hip dislocation in Gen 32:26) and its result (not eating that part of an animal in Gen 32:33). This distance makes it more cognitively taxing to connect the על-כן result clause in Gen 32:33 with its earlier cause in Gen 32:25. Therefore, the specific cause is repeated to lower processing cost.

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[185] Cf. Gen 11:9; 21:31; Isa 9:15; 16:9; Jonah 4:2; Hab 1:16; Lam 1:8. However, 2 Sam 7:20 appears to have a speech-act use in this construction. Jer 5:6 and 20:11 appear to have an epistemic use. Hab 1:3 appears to have a content nonvolitional use. Nevertheless, even though this construction is not exclusively used with the content volitional domain, it may be worth noting that a clear majority of cases appear with this use.

185

Another collocation that seems to be especially associated with content volitional uses is when causal כי is immediately followed by אמר, which presents the rational for a character's actions in the main clause.[186] Possible pragmatic nuances of this construction will be discussed in considering example (103) below. It has already been noted above in section 8.1.1 in the discussion of speech-act relations that several cases of causal כי following a question operate in the content volitional domain (e.g. Gen 20:10–11; 26:9; 31:31(1); and outside my corpus see Ex 1:18–19; 18:15; Num 22:28–29).[187] That is, the כי clause is not providing the speaker's basis for asking the question (as with a speech-act causal relation). Rather, the question asks for the rationale of a character's volitional action and the כי clause provides it. The syntactic status of such causal clauses will be considered in section 8.2.2.2 below in the discussion of bound subordination.

Thus, content volitional causal relations must be interpreted with reference to a character subject of consciousness, rather than speaker subject of consciousness. However, due to the pressure of subjectification in an attempt to find the most relevant interpretation of an utterance as discussed in section 6.2 above, hearers are constantly pushing the locus of the causal relationship toward the deictic center of communication in the speech-interaction ground. That is, there is a cognitively motivated trend for hearers to progressively reanalyze content domain causal relations more and more as an expression of the speaker's reason for saying something or saying it in a certain way. Furthermore, as discussed throughout chapter 6, these subjectivizing inferences may be not only made by the hearer, but also invited by the speaker. Thus, even the כי clause in Gen 19:30 discussed above in example (93) may be construed in the metalinguistic domain as the narrator's insertion of background knowledge to make the presentation of the main clause felicitous. Recall that in the preceding narrative (Gen 19:17–22), Lot explicitly said he did not want to live in the hills as the angels instructed him but preferred to live in Zoar. Therefore,

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[186] See Gen 19:30; 21:16; 29:32(1); 31:31(1–2); 32:21; 38:11, 14(1); 42:4; Ezek 8:12; 9:9; Ps 38:17; 1 Chron 23:25; 2 Chron 8:11(1); 22:9; 26:23. In Ps 38:17, the character is the same as the speaker, but projected onstage and thus construed in the content volitional domain, as discussed in section 3.3.2 above. Other verbs of perception or speaking may be used (e.g. ראה in Gen 38:14). However, while collocation with ראה also appears with speech-act (e.g. Gen 31:12) and metalinguistic (e.g. Gen 32:31) causal כי, the collocation with אמר seems especially associated with content volitional causal כי. It should also be noted that some cases where אמר immediately follows causal כי do not actually belong to this collocation, since the subject of אמר is different from the agent of the volitional action in the main clause (e.g. 1 Chron 27:23; 2 Chron 23:14).

[187] Cf. Miller (2003:107–108) where she observes: "causal כי at the beginning of a direct quotation does not bear a relationship to a matrix verb within the quotation, but rather is pragmatically linked to a preceding quotation or action within the narrative context."

the statement in Gen 19:30 that Lot actually left Zoar to live in a cave in the hills requires background knowledge to justify the felicity of the narrator's presentation. In other words, as discussed in section 8.1.2 above concerning metalinguistic causal relations, it is a maxim of conversation that speakers anticipate the background knowledge of their audience and provide any lacking background knowledge required to make sense of what they are saying. However, this new information of Lot living in the hills in Gen 19:30 does not fit the background knowledge of the audience (i.e. Gen 19:17–22). Thus, in order for the communication to be felicitous, the narrator must update the audience's background knowledge. Crucially, this construal of the causal relation would place its locus in the subjective speech-interaction ground between narrator and audience. As I will argue in the following section, such subjective construal of an erstwhile objective causal relationship is also possible with the more objective content nonvolitional domain.

8.1.4.2 *Content Nonvolitional causal* כי

In my corpus, I have identified 13 possible cases of causal כי being used in the content nonvolitional domain. This amounts to about 2% of causal uses of כי.[188] Again, a content nonvolitional causal relation holds when one state of affairs is presented as the cause of another state of affairs with maximally objective construal and without any reference to a subject of consciousness. As will be discussed below, many of the potential content nonvolitional relations in my corpus may have more subjective interpretations. However, some examples appear to be clearer than others. For example, Gen 41:32 seems to be a clear content nonvolitional use of causal כי.

(95) Gen 41:32

וְעַ֨ל הִשָּׁנ֧וֹת הַחֲל֛וֹם אֶל־פַּרְעֹ֖ה פַּעֲמָ֑יִם כִּֽי־נָכ֤וֹן הַדָּבָר֙ מֵעִ֣ם הָאֱלֹהִ֔ים וּמְמַהֵ֥ר הָאֱלֹהִ֖ים לַעֲשֹׂתֽוֹ

And concerning the doubling of Pharaoh's dream, (it is) because the matter is firmly established from God and God will quickly do it.

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[188] See **Gen** 5:24; 8:9; 27:20; 41:31, 32; 45:26(2); **Ps** 18:8; **1 Chron** 5:22(2); **2 Chron** 7:2; 21:10; 22:3, 4; 27:6.

This text appears within the Joseph story when the Pharaoh calls upon him to interpret his dream. In this verse, Joseph is providing the interpretation of the fact that the dream was doubled. That is, the same event (coming famine in Egypt) was depicted with different sets of imagery. First, shriveled cows ate plump, healthy cows and then shriveled ears of corn ate plump, healthy ears of corn. The reason that this event was depicted twice is because it was firmly established by God. As Bandstra (1982:197) explains, "The infinitive phrase introduces a topic and the ky clause gives the reason for it: 'Concerning the two-fold repetition of the dream to Pharaoh--(it is) because the matter is certainly from God'" (cf. JPS1917, KJV, NET).[189] Thus, the כי clause presents the causal relationship between two states of affairs objectively construed, that is, without reference to a subject of consciousness as the source of thinking or acting.[190] A paraphrase that makes this more explicit would be: "the state of affairs that the dream was doubled was caused by the state of affairs that God has firmly established what it signifies."

However, several of cases that may appear on the surface to be content nonvolitional may be better interpreted as more subjective. Once again, this ought not be surprising in light of the discussion in section 6.2 where we saw that through the process of subjectivization, more subjective readings are inferred in the effort to interpret them with maximum relevance. For example, Gen 45:3 could be possibly taken as content nonvolitional, but also as metalinguistic, providing the necessary background information required to make sense of the main clause.[191]

(96)   Gen 45:3

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[189] Some translate כי as the complementizer "that", e.g. JPS1985, NASB, ESV, NCV, NIV. The LXX use of ὅτι can be taken either way, likely a strategic move by the translators.

[190] Of course, in the narrative, God is the one who gives the dream and doubles it for the purpose of highlighting its certainty. However, recalling section 5.3 above, this character agency is mitigated especially by the passive voice of הֻשְׁנוֹת, as well as by נָכוֹן. This imposes a more objective construal on what may otherwise constrain a more subjective construal if presented with active voice. Furthermore, a causal relation would be more subjective when the causal clause motivates a volitional action, speech-act, or metalinguistic choice in the main clause, not the mere presence of some recoverable volitional action in the causal clause if the passive voice were reconstructed in the active.

[191] Cf. Gen 45:26(2); Ezek 31:7; Ps 9:4–5. And recall the discussion of Gen 29:9 in example (92) above. Also note Gen 41:31, which is an example of what seems to be a content nonvolitional relation. However, a more subjective reading comes in to view when compared to the nearly identical כי clause in 42:5, which is more clearly a metalinguistic use to provide background information on which the presentation of the main clause makes sense. The LXX and several modern translations appear to support this reading of Gen 45:3 by translating it with a coordinating causal connective (γάρ in the LXX and *for* in English versions, associated with more subjective causal relations as seen in chapter 5). Also note Berlin's (1983b:87) comment on Gen 45:3 that "It is the 'because' clause that makes the point of view internal. Without it we would have an external presentation, or the continuation of Joseph's perspective." Thus, the כי clause here may also be read as a case of free indirect speech, discussed in the following section. For a similar case, see Gen 13:6 in comparison with Gen 36:7.

וַיֹּ֨אמֶר יוֹסֵ֤ף אֶל־אֶחָיו֙ אֲנִ֣י יוֹסֵ֔ף הַע֖וֹד אָבִ֣י חָ֑י וְלֹֽא־יָכְל֤וּ אֶחָיו֙ לַעֲנ֣וֹת אֹת֔וֹ כִּ֥י נִבְהֲל֖וּ מִפָּנָֽיו

And Joseph said to his brothers, "I am Joseph. Is my father still alive?" But his brothers were not able to answer him, for they were shocked by his presence.

Here, the כי clause may be interpreted as communicating the nonvolitional causal relation between two states of affairs objectively construed. To make this explicit, this construal may be woodenly paraphrased as follows: "the state of affairs that Joseph (whom they sold as a slave years earlier) was the second in command over all of Egypt caused the state of affairs that they were shocked." However, this could also possibly be interpreted more subjectively to infer more relevance for the interaction between narrator and audience. In that case, the כי clause may be taken as the narrator's additional comment to provide background information to the audience in order to make sense of the main clause. In fact, Follingstad argues that this is the way the כי ought to be read here (citing Sternberg's 1985 comments as support). Follingstad (2001:524) writes, "Gen 45:03 is an example of כי on the direct narrator-reader axis where the narrator asserts a propositional content due to some contrary or hesitant presupposition on the part of the reader (as estimated by the narrator). In this case, the narrator may feel that the reader may not appreciate, or has overlooked, the extent of the brothers' discomfiture." Follingstad continues to assert that כי itself does not communicate a logical causal relationship (even if the content of the כי clause does). However, the point I am making is that it is precisely the more concrete causal sense of כי that has been extended into these more abstract causal relations.

While certain interpretations may be more or less clearly in one category or another, the point is that there is a tendency for more objective utterances to invite more subjective inferences, which may then be incorporated into the semantics of כי in the process of subjectification. Thus, while I have presented a set number of causal כי clauses operating in each domain of use, all the uses in these categories cannot be taken as homogenous. Rather, uses grouped in a certain category should be conceived of as more and less liminal to the category and more or less approaching another category on the continuum as described in section 6.2 above. I will now turn to discuss some of the more notable cases where uses of causal כי push categorial boundaries for pragmatic effect.

189

8.1.5   Pragmatic extensions of causal כי

As described briefly in section 4.4 and more extensively throughout chapter 6, I use the term "pragmatic" in reference to inferential meaning in contrast to semantics in reference to entrenched meaning (while rejecting the assumption that there is a hard boundary between the two or that each side of the distinction is homogenously inferential or entrenched). Thus, the diachronic development of each segment in the continuum of subjectification (see Figure 6.2) and each node in the network of interclausal relations (see Figure 6.5) realized in the usage profile of כי involves the progressive entrenchment of erstwhile inferential interpretations. I have already pointed out several of those seams in the above discussion of various domains of use seen in causal כי where certain domains may be reanalyzed as others. I will synthesize those observations at the conclusion of this chapter. I will also further discuss the seams between the causal and various non-causal uses of כי in the next chapter. In this section, however, I will briefly discuss one way in which the prototypicality of כי as a primarily subjective causal connective may be leveraged for pragmatic effect—namely, to reinforce the construal of free indirect speech (also called the "easy identification effect").

As described at various points in chapters 3 and 4 above, free indirect speech referrers to cases in which the speech or thoughts of a character are not introduced with some quotative or framing word like "he said/thought" (hence "*free* indirect speech"). Furthermore, this speech or thought is not a direct quotation (hence "free *indirect* speech") but a blending of the speaker/narrator perspective with the character perspective as if viewing the character's speech or thoughts from their eyes (cf. Fludernik 2009:67). As explained by Miller (2003:82), "Free indirect discourse combines the 'voice' of the reporting speaker and the 'voice' of the reported speaker. This duality of voice is reflected syntactically in that the deictic center of the reported utterance is split between the reporting speaker (or narrator) and the reported speaker."[192] By way of reminder, consider the following illustrations used by Miller (2003:82–83), taken from Herman (1993:382):

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[192] For a detailed overview of free indirect speech within biblical studies and specifically bearing on כי, see Follingstad (2001:522–529). For a discussion focusing on biblical narrative, see Sternberg (1985: esp. 52–53), which he also refers to as "inner life" (cf. Berlin 1983a:61–62). More broadly, see Toolan (2006:701). It is important to note that there are various markers of free indirect speech (Vandelanotte 2004) and that it approximates other types of speech representation to varying degrees (Bal 2009:51–56). Thus, Vanderbiesen (2016) argues that these categories are actually points on a cline between 'quotive' and 'reportative.' Thus, free indirect speech also displays prototypicality effects (Ikeo 2007), which will be important for the discussion below of unframed direct speech.

(97)   a. Direct:
       Unflinching, Lucia said: "By God, I'm ready for anythin' now."
       b. Indirect:
       Unflinching, Lucia said that she was ready for anything then.
       c. Free indirect:
       Lucia stood there unflinching. By God, she would be ready for anythin' now.

Thus, direct speech presents a character's words/thoughts with the character as the deictic center in distinction from the quotative frame, which has the reporter as the deictic center. Indirect speech presents both the quotative frame and the character's words/thoughts with the reporter as the deictic center. Free indirect speech blends the two so that the reporter takes on the character's perspective and deictic elements of both are present. For example, in (97c) the speech includes the Lucia's perspective in the exclamative "By God" and the temporal deictic "now" but also a blend of the reporter and character perspective with the use of "she would" instead of "I'm" as in direct speech or "she was" in indirect speech.

While free indirect speech has been primarily observed as a feature of the Western literature, Miller (2003:82) notes Sternberg's (1993:257) observation that "its use by the biblical writers constitutes one of the Bible's major claims to originality." While there are few cases where causal כי may be used to mark free indirect speech, this makes sense in light of the liminal nature of it as a literary device. Furthermore, not only is free indirect speech rare in the Hebrew Bible (cf. Alter 1996:190), indirect speech in general is largely avoided in Hebrew literature (Berlin 1983a:64; Alter 2011:83).[193] This makes even the few cases of כי introducing free indirect speech quite notable. Consider, for example, the causal כי in Gen 34:7.[194]

(98)   Gen 34:7

| וּבְנֵ֨י יַעֲקֹ֜ב בָּ֤אוּ מִן־הַשָּׂדֶה֙ כְּשָׁמְעָ֔ם | Now, the sons of Jacob had come in from the field when they had heard. |
| וַיִּֽתְעַצְּבוּ֙ הָ֣אֲנָשִׁ֔ים וַיִּ֥חַר לָהֶ֖ם מְאֹ֑ד כִּֽי־נְבָלָ֞ה | And the men were deeply grieved and |

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[193] Compare Miller's (2003:220–226) observation that free direct speech (which she calls "unframed direct speech") is uncommon in both Biblical Hebrew and Ugaritic.
[194] Compare Gen 31:30, which the LXX renders with the more subjective γάρ (cf. NETS) and Gen 34:19, which the LXX renders with γάρ and Alter (1996:192) with *for*. Also see the comments in footnote 191 on Gen 45:3 in example (96) above as a possible case of free indirect speech.

191

עָשָׂה בְיִשְׂרָאֵל לִשְׁכַּב֙ אֶת־בַּת־יַעֲקֹ֔ב וְכֵ֖ן לֹ֥א יֵעָשֶֽׂה

very angry, for he had committed a despicable thing in Israel, to have sexual relations with the daughter of Jacob, and such a thing should not be done.

As discussed above in section 4.7, prototypically subjective connectives may be used in these more objective content-volitional contexts to signal a causal relationship in which the character's perspective is blended with the narrator's in free indirect discourse. This appears to be precisely what the כי clause is doing here. Here, the sons of Jacob had just heard that their sister had been raped. The reason for their indignation over the incident is introduced with a causal כי clause containing several elements that seem to indicate character perspective and thus free indirect discourse (e.g. "a despicable thing" נְבָלָה, "should not be done" לֹ֥א יֵעָשֶֽׂה).[195] As Toolan (2006:703) explains:

> If there is one linguistic feature that seems noticeably more prominent in FIS [free indirect speech] than in alternative modes of discourse representation, it is modality. FIS is marked by frequent use of modal verbs (*must, should, had to, could, might, would*) and sentence adverbials (*certainly, perhaps, maybe, surely, of course*, etc.) expressing judgments about the likelihood or necessity or desirability of some action or state transpiring.[196]

This is exactly what we find in the represented speech/thoughts of Jacob's sons. Furthermore, Alter (1996:190) offers this very analysis in his translation and comments on the כי clause in this text, writing: "This entire clause is a rare instance in biblical narrative of free indirect discourse, or narrated monologue. That is, the narrator conveys the tenor of Jacob's sons' anger by reporting in the third person the kind of language they would have spoken silently, or to each other.[197]Arguably, readers of English translations are better guided to this construal of the causal relation as reinforcing the blended perspective by rendering it with a clearly more subjective causal connective like *for*, as seen above in Alter's translation (cf. NASB, ESV).

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[195] Cf. 2 Sam 13:12 where a similar statement is made, but exclusively from the character's perspective in direct discourse. It is such a character perspective that is blended with the audience perspective in free indirect discourse.
[196] Cf. Dancygier & Vandelanotte (2016); Verhagen (2016:4); Berlin (1983b:102–113).
[197] Cf. Follingstad (2001:523–524). Also see the כי clause in Gen 34:27, which Alter (1996:194) also identifies as free indirect discourse. Alter (1996:191) also tentatively suggests that אשר in Gen 34:13 may also be used to mark free indirect speech. For other cases of free indirect discourse without כי, see Alter's (2004) comments on Ex 11:3 and his (2010) comments on Job 22:17.

192

The suitability of כי as a reinforcing marker of free indirect speech makes perfect sense in light of its semantic profile discussed in this chapter so far. Since causal כי is prototypically associated with a subject of consciousness identical to the speaker here-and-now as the source of the causal relation (as seen in its overwhelming preference for use in subjective, non-content domains), it can be employed in content-volitional contexts to help constrain an internal view in which the narrator takes on the character's perspective, pulling the character's internal rationale into the deictic center of communication with which כי is most strongly associated. The complex mental space network involved in this construal was presented in Figure 4.8 above where it was called a third person subject of consciousness epistemic blend. Simply put, the prototypical usage of כי may be exploited in a cognitively motivated way for pragmatic extension in free indirect discourse.

It is also important to note with Miller (2003:91) that, "The varieties of indirect speech are gradient…" (cf. Follingstad 2001:530–543). That is, as other linguistic phenomena, direct and indirect speech do not constitute a strict dichotomy, but rather a continuum. Two intermediate cases between direct and indirect speech are cases of a belated quotative with indirect speech (which approaches the nuances of free indirect speech) and "unframed direct speech" (i.e. free direct speech, which also has a belated quotative variant). Beginning with the first, cases with possibly belated quotatives would be cases where the quotative (e.g. אמר) follows the כי introducing a causal clause from the character's perspective.[198] Toolan (2006:703) explains that this may be taken as a variation of free indirect speech, "…the belated reporting clause being processed by the reader only when the reported speech has already been understood to express the words and 'voice' of the character…" Thus, a belated quotative appears to have similar effects to free indirect speech, since it is only later understood to be explicitly framed by a quotative.[199] According to Follingstad (2001:566), such כי אמר constructions mark "…a very vivid representation of a character's thought." Consider, for example, Gen 31:31(2).

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[198] These may or may not overlap with cases in which this introduces the answer to a WH-question, the semantics of which was mentioned above in section 8.1.4.1 and the syntax of which will be discussed below in section 8.2.2. In that case, the כי clause would fit the integration phenomenon discussed in chapter 5 and function in the content domain. The important point being that functioning as the answer to a WH-question poses particular constraints on the construal of the causal relation, for reasons discussed more below.

[199] As Fludernik (1993:280) explains, "the reader, once s/he has started to read in terms of speech or thought representation, will continue processing the text in this frame until alerted by textual and semantic (contextual) features to reinterpret in terms of a new frame."

(99)   Gen 31:31(2)

וַיַּעַן יַעֲקֹב וַיֹּאמֶר לְלָבֶן כִּי יָרֵאתִי כִּי אָמַרְתִּי פֶּן־תִּגְזֹל אֶת־בְּנוֹתֶיךָ מֵעִמִּי

And Jacob answered and said to Laban, "Because I was afraid. For, I thought (lit. said), lest you tear your daughters from me."

Here, the direct quote of Jacob's words contains within it an indirect quote with the belated quotative אָמַרְתִּי. That is, the second כי may be taken as part of the embedded quote.[200] As with the above discussion of free indirect speech, this embedded indirect quote contains speaker deictics in the here-and-now of communication (i.e. in a direct quote, the verb תִּגְזֹל and the pronominal suffix in בְּנוֹתֶיךָ would be third person, not second, cf. Toolan 2006:703) and more character-perspective emotive language ("lest you tear" פֶּן־תִּגְזֹל).[201] Using "for" to render the second כי may help constrain a more subjective interpretation of the causal clause (cf. LXX γάρ, KJV, NASB, ESV). Toolan (2006:703) maintains that in such cases, "it is hard to see a definitive formal or criterial basis for specifying where such nonstandard IS [indirect speech] shades into some form of FIS [free indirect speech]." Compare Follingstad's (2001:556) conclusion regarding the כי אמר construction that, "It seems to be somewhere between semi-indirect thought/speech, and direct speech proper (with אמר 'say')."[202] Thus, while not identical to the free indirect speech of Gen 34:7, the belated quotative does seem to invite the reader to view the causal כי from within the character's perspective and stands at some point in between direct and free indirect speech.[203]

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[200] Beginning a character's reported speech with כי is not at all unheard of. This is clear from the many texts where כי immediately follows a quotative אמר (e.g. 2 Chron 28:23). See Miller (2003:103–116) where she persuasively demonstrates many cases where reported speech begins with כי.

[201] Even though the character and the speaker in the here-and-now are coreferential (i.e. they are both Jacob), Jacob's indirect quote of himself is presenting the emotive language of his mindset when he previously made the decision to leave Laban.

[202] Also see Follingstad's (2001:540) comment that the כי אמר construction "…has much in common with its other uses in indirect discourse (secondary perception, inference) and semi-indirect discourse."

[203] Of course, this effect would be much clearer if the quotative occurred after the entire כי clause. However, the use of the quotative in the middle of a quotation, rather than the beginning or end, is not unknown. For example, Brockelmann (2004:§175) points this out in Gen 3:3; Isa 1:11, 18; 40:1, 48:22; 57:19; 59:21. We may also anticipate the objection to this analysis as too unnatural, to begin with כי from the character perspective, then switch back to the reporter perspective with the quotative אָמַרְתִּי, and then once again switch back to the character perspective in free indirect style. However, such switching back and forth between narrator and character perspective is not at all unattested in the Hebrew Bible. For example, we see from the deictic markers surrounding and within the כי clause in Gen 16:13 a fourfold switch from narrator perspective to character perspective, back to narrator perspective, then once again to character perspective. Cf. Berlin (1983b:87): "In Biblical narrative, the narrator moves constantly

194

Next, let us consider what Miller (2003:220–226) discusses as "unframed direct speech", which represents an intermediate category between direct speech and free indirect speech. Like free indirect speech, this is not common in the Hebrew Bible, epigraphic Hebrew, or Ugaritic.[204] Multiple instances of this occur in various naming texts already discussed in sections 8.1.2 and 8.1.4.[205] That is, in several cases, the rational for a name given is represented by direct speech without a quotative frame—free direct speech. Miller (2003:225) discusses Gen 4:25 as an example of such a case.[206]

(100)   Gen 4:25

<table>
<tr><td>וַתִּקְרָא אֶת־שְׁמוֹ שֵׁת כִּי שָׁת־לִי אֱלֹהִים֙ זֶרַע אַחֵ֔ר תַּחַת הֶֽבֶל</td><td>And she named him Seth, "For God has given me another seed instead of Abel."</td></tr>
</table>

The act of naming is given from the narrator perspective. Then the rational for the name chosen, introduced by the causal כי, is abruptly shifted to the character perspective. Miller's (2003:226) analysis of these cases concludes: "Unframed direct discourse occurs when the participant whose speech is unframed is dominant within the immediate narrative." Miller (2003:220) also notes Watson's (1990:419) observations of Ugaritic narrative texts concerning which he "suggests that quotative frames are omitted in narrative to express an emotional reaction; the speaker is clearly indicated by the action which he/she performs."[207] Thus, the device is used to highlight the speaking character. This heightened character profiling through the abrupt shift in perspective appears similar to (though less overt than) the function of free indirect speech to provide speaker perspective (cf. Follingstad 2001:537). Once again, the suitability of causal כי to reinforce this

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between external and internal presentations, sometimes stepping back for a panoramic view, and then moving close-in to a character to view things through his eyes, even getting into his mind to explain his actions and reactions."

[204] The unusualness of the few occurrences seems to be reflected in the fact that ancient and modern versions often supply a quotative frame.

[205] In addition to Gen 4:25 discussed below, see Gen 32:31; 41:51, 52.

[206] Concerning Gen 4:25, Miller (2003:225) suggests that these texts are not meant to represent an actual speech-event but are simply a literary device to introduce the etymology of the name. She seems to suggest this on the basis of the assumption that there would have been no one to whom the utterance was directed. However, this is not necessarily the case, as evidenced by the fact that in several cases of naming texts an addressee is explicitly profiled (e.g. Gen 17:5), not to mention the possibility of it reflecting inner speech to oneself.

[207] Cf. Meier (1992:51) on this in the laws of Hammurabi imitated by Semitic successors. For other rhetorical effects this produces, see Toolan (2006:701) and Follingstad (2001:540).

shifting perspective (from more objective to more subjective) is unsurprising for a prototypically subjective connective.

The importance of the more pragmatic use of כי to mark free indirect speech (as well as its use in other gradations of speech representation mentioned in this discussion) is highlighted by Sanders' (1996:58) comment that such variations in the construal of perspective "influence the situation model that readers represent and lead to different attributions of attitudes and beliefs to narrator and characters." Therefore, it is important for exegetes and translators to be aware of these features and handle them with care, since glossing over them flattens out an otherwise more intricately textured text. To borrow an observation from Toolan (2006:701) for my purposes here, what is lost when free indirect speech goes unrecognized, "…is not 'colorful language' necessarily, but 'the *character's* (possibly colorful) language.'"[208]

While the rarity of such a liminal use is to be expected, such sparse data requires a proportionate modesty that should probably not go beyond a more or less provisional proposal, until more cases can be found and analyzed. At this point, the data seems to warrant viewing כי in marking free indirect speech as highly context depended and inferentially enriched interpretation. Therefore, it is clearly a more pragmatic extension that leverages the prototypical subjectivity of causal כי in a more objective context to take on the perspective of third person subject of consciousness by promoting it to the deictic center of communication.[209] Thus, rather than seeing these as separate semanticized uses which fulfill the criteria of semantic uniqueness, I categorize them according to the non-content domains of use outlined above, albeit with the additional invited implicature of blending speaker and character perspectives.

8.1.6 Synthesis of causal כי semantics

The semantic potential of causal כי as described above can be summarized in Table 8.1 giving the usage percentages of each according to domain of use and distribution in my corpus. In each of the sections of my corpus, figures are first given for the number of all cases of causal כי and the percentage of the total that number represents. Then, the number for each causal

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[208] Cf. Ehrlich's (2014:5) comment that "…the subjective points of view of third-person subjects often emerge within texts characterized by free, indirect style."
[209] In fact, the very nature of this literary device seems to require it to always be non-prototypical. That is, it is the very clash of כי's prototypical subjectivity in an objective context that produces such a pragmatic effect. As soon as a form "fits" the context, the pragmatic inference derived from the clash is no longer invited. Furthermore, the absence of pragmatic extensions exploiting any objective uses of כי (as anticipated in section 4.7) fits with its prototypicality as a more subjective causal connective and reinforces its categorization as such.

subtype is given along with the percentage that represents for total cases of that type throughout the corpus. For example, of the total 616 cases of causal כי identified in my corpus, 164 are found in Genesis, which is approximately 26.7% of the corpus total. 72 of those have been categorized as speech-act causal כי, which represents about 25% of all cases of speech-act causal כי in my entire corpus, and so on.

Table 8.1 Distribution of causal כי according to domain of use[210]

	Genesis		Leviticus		Ezekiel		Psalm 1–41		Chronicles		Total	
Causal כי	164	26.7%	74	12%	66	10.7%	102	16.4%	211	34.2%	617	100%
Speech-act	72	25%	65	22%	27	9%	65	22%	61	21%	290	47%
Metalinguistic	26	17.6%	16	11%	16	11%	2	1.4%	102	69%	147	24%
Epistemic	13	23%	4	7%	17	30%	15	27%	8	14%	57	9.5%
CV	47	47%	4	3.5%	6	5.5%	18	16.5%	34	31.2%	109	17.5%
CNV	6	46%	0	0%	0	0%	1	8%	6	46%	13	2%

Several notable correlations emerge from these distributions. All things being equal, the percentage of any given use of causal כי in any given book within my corpus should theoretically approximate the percentage of all cases of causal כי in that book. That is, (once again, all things being equal) we would expect the percentages in each column to be roughly the same, since a section of my corpus that contains about 25% of all causal כי would presumably also contain about 25% of all speech-act causal כי, etc. When percentages for a given use of causal כי are significantly higher or lower than the percentage of all causal כי in a given section of my corpus, the question is what caused these divergences. It turns out that these cases of divergence generally have a ready explanation, which fits both the characteristics of the given text as well as the semantic analysis of כי according to these domains of use.

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[210] CV = content volitional; CNV = content nonvolitional. Percentages may not total exactly 100% in some cases due to rounding.

Specifically, while Leviticus contains only 12% of all cases of causal כי in the corpus, it contains 22% of all speech-act causal כי. Of course, this makes sense given the prescriptive nature of Leviticus and its prolific use of motive clauses. In contrast, Chronicles contains 34.2% of all causal כי in the corpus, but only 21% of speech-act uses. This too makes sense in light of its primarily narrative genre. The reason that Genesis does not contain a similar dip in speech-act uses may be attributed (at least in part) to the fact that it contains more cases of causal כי in direct discourse than does Chronicles.[211] Ezekiel's percentage of speech-act uses is very close to what we would expect given its percentage of all cases of causal כי. The jump in speech-act uses seen in Psalms Book 1, relative to its overall use of causal כי, is not unexpected given the large amount of volitives used in imprecations and supplications (often with a causal clause providing their basis). Turning to metalinguistic uses of causal כי, the most notable figure is that Chronicles contains approximately 69% of all cases of metalinguistic causal כי in the entire corpus, double the percentage of all cases of causal כי in my corpus found in that book. While this helps explain the relatively low representation of the use in the other books, it also fits the character of Chronicles described above at the end of section 8.1.2. Chronicles was seen to regularly employ metalinguistic causal כי (especially in a backgrounding way) to provide the basis for the way something was presented according to the author's ideological purposes. Furthermore, this marked rise in such "looser" causal relations (less related to the narrative object of conceptualization and more related to the ground of communication between speaker and audience) suggests a greater degree of subjectification of causal כי along the cline presented in section 6.2 and appears to fit the recognition of Chronicles as a case of later Hebrew narrative relative to Genesis.

Similar jumps can be seen in the usage of epistemic causal כי in Ezekiel and Psalms Book 1. While Ezekiel contains just over 10% of causal כי in the corpus, it contains 30% of all epistemic causal כי. This too makes sense in light of the observation at the end of section 8.1.3, which noted the pervasive theme in Ezekiel to prove the veracity of the prophetic word being presented, often supported with the phrase כִּי אֲנִי יְהוָה דִּבַּרְתִּי. Similarly, Psalms Book 1 contains just over 16% of total causal כי, but 27% of epistemic causal כי. This too makes sense in light of the persuasive nature of the genre, which is consistently preoccupied with convincing God that the Psalmist and the community of the faithful are in need and that God should act quickly on

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[211] I have identified 111 cases of causal כי in direct discourse in Genesis and 82 in Chronicles.

their behalf. In terms of content volitional uses, the higher percentages in Genesis and Chronicles fit with their narrative genre, as do the lower percentages in Leviticus and Ezekiel. That the percentage of content volitional כי in the Psalms Book 1 matches the percentage of all causal כי found there makes sense in light of the fact that these occur in places where the psalmist is describing the rationale for the volitional actions of various characters, a common feature of the Psalms. Finally, the distribution of content nonvolitional uses is also very telling. Of the 13 clear cases of this use, 12 are found in the two narrative books of the corpus (6 in Genesis and 6 in Chronicles) and 1 in Psalm 18:8 which is narrating the past events of the psalmist's experience (a rare instance of a narrative string of *wayyiqtol* verbs in the Psalter).

In terms of semanticization, certain constructions were sometimes observed to prefer certain uses of causal כי. However, none of the domains of use required a special construction or represented merely an inferentially enriched interpretation. Thus, each domain is recognized to be a fully semanticized use within the semantic potential of causal כי. However, each domain of use can clearly be placed along a scale of entrenchment according to contextual frequency. The speech-act use figures most prominently in the semantic potential of causal כי, both in terms of raw frequency (47%), as well as distribution across contexts (recall the observation along these lines at the beginning of section 8.1.1). From a more coarse-grained perspective, non-content uses of causal כי are also clearly prototypical (making up 80% of all uses) vis-à-vis content uses (making up about 20%). The content nonvolitional use is the least prototypical, as seen in its very low frequency, as well as its confinement to narrative texts.

In contrast to these domains of use, the pragmatic extension of כי as a marker of free indirect speech (and its gradations) invites a richer inference by exploiting the prototypical subjectivity of causal כי in an otherwise more objective context. This is done in order to blend the narrator's perspective with some character's in order to "see through their eyes." Thus, such cases fail the test of semantic uniqueness discussed in section 7.2 and are therefore considered to be part of the pragmatic polysemy of כי rather than part of its semantic polysemy.

Overall, there appears to be a quite natural fit between the qualitative semantic analysis of causal כי on the one hand and its quantitative frequencies and distribution across my corpus. That is, if the above qualitative analysis is correct, they appear to be quantitatively distributed where one would expect given the characteristics of the books in my corpus. Thus, the qualitative and quantitative analyses appear to be mutually supportive. This is also the case when

we come to the syntactic analysis of causal כי in terms of where it should be placed along the coordination-subordination continuum. Specifically, given the theoretical position argued in chapter 5, the above semantic analysis should have relatively predictable syntactic corollaries. In fact, this is precisely what we find when we consider the syntactic (in)dependence of causal כי, which is the subject of the following section.

8.2 Causal כי syntax and the coordination-subordination continuum

In terms of the traditional coordination-subordination dichotomy, Bandstra (1982:1) notes that כי in its causal and other adverbial (or circumstantial) functions has been "…universally recognized as a subordinator…" (cf. Arnold 2013:563). Aejmelaeus (1993:170) suggests the prevalence of this as an overarching designation is attributable to how it is handled in translations, writing, "Since most of the renderings of כי in English are subordinating conjunctions, כי is often characterized as a subordinating conjunction." While the syntactically coordinate uses of causal כי have received some attention in past scholarship (e.g. Thorion 1984:19–21; Gross 1991:104; and Van der Merwe 1993:38–39 noted in chapter 2), I attempt to build on this by offering a more detailed description and explanation of what it is that makes such uses more syntactically independent. I also attempt to present a more fine-grained spectrum of syntactic (in)dependence. Furthermore, at the end of the chapter I also endeavor to show how the varying syntactic (in)dependence of causal כי is connected to its varying semantic uses. Therefore, in this section I will present the syntactic corollaries of the semantic distinctions described in the previous section.[212] This will draw on the theoretical foundation laid in chapter 5. Recalling the framework presented there, it was argued that subjective causal relations correspond to what has been called interpersonal grammar. Specifically, canonically coordinate sentences have both an independent modal value (i.e. the epistemic or deontic modality of the utterance) and speech functional value (which places the responsibility for that modality on the appropriate interlocutor via sentence type, indicative, interrogative, or imperative). Canonically subordinate clauses do not have independent modal and speech-functional values but rather fall within the scope of the interpersonal grammar of a main clause. However, rather than a strict

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[212] It is not my goal here to simply restate the syntactic and syntagmatic observations made in previous research on causal כי. Chapter 2 has already presented an overview of those findings and references to those works in which such details may be found. Rather, the purpose here is to offer an explanation for the distribution of those syntactic patterns of causal כי that are important for the semantic interpretation of the causal relationships it expresses. This rests on the view presented in chapter 5 that there is a motivated relationship between semantics and syntax.

dichotomy, these were seen to represent poles on a continuum between coordination and subordination, with several intermediate cases. There are also cases of modal subordination in which the secondary clause has an independent modal value but not a speech-functional value (e.g. in the case of preposed position). Additionally, cases of free subordination were described in which the secondary clause does not contain its own interpersonal grammar, but neither does it fall within the scope of the main clause interpersonal grammar. In these cases, the secondary clause was seen to be discursively independent and constitute a separate focal domain from the main clause. Comma and commaless intonation was also seen to be crucial for distinguishing between clause complexes with two or only one focal domain, respectively (though our ability to identify this in the Hebrew text is difficult). Furthermore, the creation of discourse continuity was seen to motivate preposed position of the secondary clause, while the modification of an already constructed mental space was seen to motivate final position.

Crucially, it was argued that the semantics of an adverbial clause in terms of the domain of use in which it operates has a principled correlation with its level of syntactic (in)dependence. Generally, more subjective domains of use (i.e. non-content uses) were seen to permit higher levels of syntactic independence (i.e. modal subordination and coordination). More objective domains of use (i.e. content uses) were seen to be restricted to greater syntactic dependence (i.e. free and bound subordination). In the following sections, I will consider the syntax of causal כי in these two basic groups—first non-content, then content uses. Recall that the main indicators discussed in chapter 5 to determine the syntactic (in)dependence of a secondary clause were compatibility with main clause phenomena (particularly type 1 for coordinate clauses)[213], integration phenomena (for bound subordinate clauses), the ordering of the main and secondary clauses (e.g. coordinate secondary clauses cannot occur in first position, but modal subordinate clauses can, and medial position favors metalinguistic uses), and the presence on one or more focal domains (e.g. coordination, as well as modal and free subordination have their own focal domain while bound subordination falls within the scope of the main clause focal domain).These correlations point to the fact that the level of syntactic (in)dependence is a functionally and cognitively motivated epiphenomena of underlying subjective values (i.e. interpersonal grammar) of the clause complex.

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[213] The distinction was made in section 5.2.1 between type 1 and type 2 main clause phenomena, the second of which are also compatible with modal subordination. For that reason, I will focus on main clause phenomena type 1 (availability of interrogative and exclamative clause types) in my discussion of the coordinate syntax of causal כי.

8.2.1 Coordinate and modal subordinate syntax of non-content causal כי

I begin by considering the syntax of non-content uses of causal כי—speech-act, epistemic, and metalinguistic uses. As discussed in sections 8.1.1–8.1.3 above, what unifies these uses is the fact that they express a causal relationship between the main clause and the speaker's justification for that main clause (e.g. some speech act or epistemic stance) or one of its constituent elements (e.g. a word, phrase, or some other feature of its linguistic form). As discussed in chapter 5, the ability of a causal clause to enter into a relationship of support with the main clause requires it to be outside of the scope of the main clause and posses its own values of interpersonal grammar—speech-function and/or modality. Position of the כי clause relative to the main clause and compatibility with main clause phenomena will allow us to categorize non-content uses as being a case of syntactic coordination or modal subordination.

8.2.1.1 *Coordination of causal כי*

Beginning with cases of causal כי that are coordinate or syntactically independent (as evidenced by their compatibility with main clause phenomena), consider again 2 Chron 1:10 (cf. 1 Kgs 3:9) discussed in example (79) above, repeated here for convenience.

(101) 2 Chron 1:10

עַתָּ֗ה חָכְמָ֤ה וּמַדָּע֙ תֶּן־לִ֔י וְאֵצְאָ֛ה לִפְנֵ֥י הָעָם־הַזֶּ֖ה וְאָב֑וֹאָה כִּֽי־מִ֣י יִשְׁפֹּ֔ט אֶת־עַמְּךָ֥ הַזֶּ֖ה הַגָּדֽוֹל	Now, grant me wisdom and knowledge so that I might go out and come in before this people. For who can govern this great people of yours?

Recall from above that this was taken as a speech-act causal כי providing the justification for the question asked in the main clause. The syntactically interesting observation here is that the causal כי clause heads an interrogative sentence while the main clause is imperative. Thus, the כי clause clearly does not fall within the scope of the main clause interpersonal grammar. Furthermore, the availability of rhetorical questions is one of the clearest main clause phenomena with which coordinate causal כי is compatible. Subordinate clauses (whether modal, free, or bound) are not able to be of a different clause type from the main clause because they do not have their own speech-functional value. In terms of the continuum of coordination and

subordination presented in chapter 5, this reveals that such כי clauses ought to be considered coordinate.[214] It was also explained in chapter 5 that speech-functional value is only available for secondary clauses following the main clause.[215] This too fits with causal כי clauses such as the one in 2 Chron 1:10 in example (101).[216] This provides the linguistic explanation for Gross' (1991:104) observation that causal כי clauses following imperatives and question words are coordinate.[217] This is the natural outworking of the subjective values of the interpersonal grammar of the main and כי clause and how they interact.

Another (type 1) main clause phenomena discussed in section 5.2.1 was the availability of exclamative clause types. A case of causal כי heading such a clause type can be seen in Ezek 30:9 in the following example.[218]

(102) Ezek 30:9

בַּיּ֣וֹם הַה֗וּא יֵצְא֨וּ מַלְאָכִ֤ים מִלְּפָנַי֙ בַּצִּ֔ים לְהַחֲרִ֖יד אֶת־כּ֣וּשׁ בֶּ֑טַח וְהָיְתָ֧ה חַלְחָלָ֛ה בָהֶ֖ם בְּי֣וֹם מִצְרָ֑יִם כִּ֥י הִנֵּ֖ה בָּאָֽה

In that day, messengers will go out from before me in ships to alarm carefree Cush. And trembling will be upon them in the day of Egypt. For behold, it is coming!

Block (1998:162) explains the כי clause here as follows: "The message of the envoys is summarized in the last line, *kî hinnēh bāʾâ*, *Watch out! It is at hand!* As in ch. 7 (cf. v. 14), the announcement functions rhetorically like a sentry's trumpet blast, warning residents and the

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[214] Miller (2003:74) uses a similar line of argument to support the syntactic independence of direct quotations. Thus, different clause types and the other indicators used in this study to show that a clause falls outside the scope of the main clause are productive evidence for the greater syntactic independence of a variety of linguistic phenomena, not just causal clauses.

[215] Note that the main clause to which the causal כי stands related may technically be elided, as in Gen 29:32(2) where the actual act of Leah naming Reuben is given from the narrator perspective and only Leah's rationale is given in direct discourse (cf. Gen 32:21). Also recall cases such as 1 Chron 16:34 discussed in example (83) above.

[216] For other cases of causal כי heading an interrogative clause type (especially with מי and מה, but also forms of איך), see Gen 44:34; 50:19; 2 Chron 1:10; 6:18(1). In Gen 43:10(1), the כי clause heads a conditional construction, which would appear to evidence its independent speech-functional value in distinction to the main clause, thus making it coordinate (cf. Gen 44:26). In Gen 44:26, the כי clause motivates an entire conditional construction (cf. Ps 37:24(2)). Epistemic causal כי is also found heading interrogative clause types. See, for example, Ps 18:32.

[217] Compare Van der Merwe's (1993:38) comment that in cases where כי follows the main clause and constitutes a separate illocutionary act, "כי cannot be regarded as a subordinating conjunction." Also see the following observation concerning causal כי in Gesenius & Treggelles (1846:392): "When the causal clause follows, in Latin the causal demonstrative *nam* is commonly used, Gr. γάρ [Engl. *for*]." The significant point here is that Latin *nam* and Greek γάρ are coordinating causal conjunctions. For the coordinate status of *nam*, see Cabrillana (2011:61) and Baños (2011:196). For γάρ, see Moulton (2000:331).

[218] Cf. Ezek 36:9; Zech 9:17.

military to prepare for an attack."[219] It is especially the use of הִנֵּה in the כִּי clause that highlights its exclamative nature.[220] Waltke & O'Conner (1990:674–678) describe such uses of הִנֵּה under the category "presentative exclamation."[221] That is, הִנֵּה may be used to introduce "…exclamations of immediacy and fuller exclamations of perception, cause, circumstance, etc." (Waltke & O'Conner 1990:675).[222] Thus, as argued in chapter 5 (especially section 5.2), such causal כי clauses should be taken as canonically coordinate since they possess their own speech-functional value as part of their interpersonal grammar, evidenced here by the exclamative clause type. Also note that while 2 Chron 1:10 discussed in example (101) was a speech-act causal כי, here it is best taken as an epistemic causal כי. That is, the surety of the oracle is supported by its unmitigated imminence. That this causal relation would have a subjective, non-content interpretation is precisely what we would expect from its coordinate syntax (cf. section 5.2).

Crucially, as explained in section 5.2.1, it is not the overt presence of, but rather compatibility with, main clause phenomena that reveals coordinate status of clauses. That is, if the meaning of a causal relation would be unchanged by the addition of main clause phenomena, then the כי clause is coordinate, even in the absence of such overt phenomena. This also reveals that content uses cannot be considered coordinate, because they cannot be combined with main-clause phenomena without changing their interpretation. For instance, consider the following example:

(103)   a. The neighbors are home because their lights are on.
            (ambiguous between content and epistemic interpretations, depending on intonation)
        b. The neighbors are home, because aren't their lights on?
            (constrains an epistemic interpretation)

In (103a), the causal relation could be interpreted as a content volitional relation explaining the motivation for the neighbors being home (perhaps they are making an unexpected return after

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[219] Cook (1937:333) notes the parallel exclamatives in Ezek 7:5 and 10. These, however, are not headed by כי.
[220] See Miller-Naudé & Van der Merwe (2011:53) who describe הִנֵּה in terms of mirativity—a marker "used to point to something for which either addressees or characters were not prepared." Compare Andersen (1974:94) who says it introduces "surprise clauses."
[221] Of course, Van der Merwe *et al.* (2017:§44.22.1) are correct to point out that the use of הִנֵּה in Hebrew is complex and does not fit neatly into any one word class. Joüon & Muraoka (2006:323) refer to it as a "presentative adverb" in their discussion of interjections. Compare HALOT which designates it a "deictic and interrupting interjection."
[222] Note especially Waltke & O'Conner's (1990:676–678) discussion of הִנֵּה with a causal nuance. This would perhaps make its use in a causal כי clause even more natural.

just leaving on a trip because they forgot to turn off their lights). That same utterance could also be taken as an epistemic causal relation (given the appropriate intonation), explaining the reason for why the speaker knows that the neighbors are home. However, if it is formulated as a rhetorical question, as in (103b), the main clause phenomena would force a non-content interpretation.

However, compatibility with main clause phenomena (especially type 1) is precisely what characterizes non-content uses of causal כי that follow their main clause. Recalling the discussion of the major mechanisms of language change in section 6.1.1, the model of language adopted here predicts such syntactic "opacity." That is, when approaching syntactic change as semantically motivated, it is natural that semantic reanalysis would precede (at least logically, even if not necessarily temporally) and make possible overt syntactic changes. Therefore, it makes perfect sense that there would be cases of syntactic coordination that do not overtly display main clause phenomena. Indeed, it is uncontroversial that coordinating conjunctions like ו need not head interrogative or exclamative clause types for them to be considered coordinate. Thus, it is their compatibility with, rather than the overt presence of, main clause phenomena (type 1) that reveals them to be coordinating. This calls for a reconsideration of the syntactic status of all non-content uses of causal כי that do not appear before the clause(s) to which they stand related. Since they appear to display the same syntactic properties of recognized coordinating conjunctions, there does not seem to be any linguistically justifiable reason to exclude them from the category. Furthermore, such uses of causal כי are often parallel to (a)syndetic coordinate clauses. Note, for example, Lev 5:11 discussed in example (81) above. The speech-act causal כי there (כִּי חַטָּאת הִיא) is the same as the coordinate motive clause in the following verse (חַטָּאת הוּא), although the latter is asyndetically linked.[223] For these reasons, I take

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[223] Also compare 1 Chron 14:10 with 2 Sam 5:19. While these are parallel accounts, the causal clause in 1 Sam 5:19 is given as a coordinate clause in 1 Chron 14:10. A comparison of Ezek 45:14 with Ex 16:36 yields a similar observation. In each case, the narrator is supplying background information about measurements that the audience is anticipated to need. In the former case, this is headed by a metalinguistic causal כי but in the latter is given in a coordinate clause. And, like the description of metalinguistic causal כי given in section 8.1.2 above, Berlin (1983:86b) says that the coordinate clause in Ex 16:36 is one of "The most blatant intrusions of the narrator's voice…" Such identical usage argues for the independent syntactic status of the כי clause. One may also compare Gen 4:1; 5:29; 17:15–16; and 21:3–6 to the metalinguistic naming texts mentioned above in section 8.1.2. The former are not headed by כי clauses and are uncontroversially coordinate while the latter are headed by causal כי. Furthermore, cases where causal כי heads an interrogative clause also have a parallel with asyndetic coordinate clauses. These are instances of some form of מות + למה as a motive clause (e.g. "why should you die") which give the basis for a speech-act in the preceding clause (e.g. Gen 47:15; 1 Sam 19:7; Jer 27:12–13; Ezek 18:31; 33:11; Eccl 7:17) and sometimes in the following clause (Gen 47:19). I take all these parallels as evidence of their mutual

non-content causal כי that follows the main clause to be coordinate. Quantitatively, this means that 472 of the total 617 cases of causal כי identified in my corpus (over 76%) should be considered coordinate, since they follow the clause(s) to which they stand related and constitute a separate illocutionary move from the main clause as evidenced by their compatibility with the main clause phenomena discussed above.[224] Additionally, though there does not seem to be much crosslinguistic research on the syntactic status of secondary clauses appearing in the middle of the main clause to which they stand related, these too appear to be compatible with main clause phenomena and thus fulfill the criteria of coordination.[225] This would add an additional 15 tokens and bring the total number of coordinate causal כי clauses in my corpus to 487, approximately 79% of all causal כי uses. However, further research would help clarify the syntactic status of secondary clauses occurring in such an unusual position.

8.2.1.2 *Modal subordination of causal* כי

Moving from the coordinate pole and closer to the subordinate pole of the syntactic continuum, we come to modal subordination—clauses which posses their own modal value, but

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coordinate status. Note that content causal relations may also be communicated by asyndetically linked clauses, but that the cause would precede the effect to mirror the natural order of events. That is, the absence of an explicit connective marking the causal relationship gives greater relevance to iconic order. See, for example Gohl's (2000) study of asyndetic constructions as a means for giving reasons in the context of interaction between interlocutors.

[224] These occur at **Gen** 2:17, 23; 3:5(1), 19 (1-2); 4:25(1); 6:12, 13; 7:1, 4; 8:21; 9:6; 10:25; 13:6, 8, 15, 17; 15:16; 16:11, 13; 17:5; 18:5, 19; 19:8, 13(1), 14, 22; 20:7(1), 18; 21:10, 12, 17, 18; 22:12(1); 25:30; 26:3, 7(2), 16, 24; 28:15; 29:2, 9, 21, 32(2), 34; 30:13, 16, 20, 26, 30; 31:12, 15, 16, 30, 35(2), 36; 32:11, 12, 27(1), 29(2), 31; 33:10, 11(1-2); 34:7, 19; 35:17; 36:7; 37:17, 27; 38:15, 26; 40:15(1); 41:51, 52; 42:5, 23(2), 38; 43:5, 10(1), 16, 32(2); 44:18, 26, 32, 34; 45:3, 5(2), 6, 20; 46:3, 32, 34; 47:4(2), 13, 15, 20(1), 22; 48:18; 49:4, 6, 7(1-2); 50:3, 17, 19; **Lev** 2:11; 5:11; 7:25, 34; 8:33, 35; 9:4; 10:7, 12, 13(1-2), 14, 17; 11:42, 44(1-2), 45(1-2); 13:11, 28, 52; 14:13, 48; 16:2, 30; 17:14(1-2); 18:10, 13, 24, 29; 19:2, 8, 20(2), 34; 20:7, 19, 26; 21:6, 7, 8(1-2), 12, 15, 18, 23(1-2); 22:7, 16, 20, 25; 23:28; 24:9, 22; 25:12, 16, 17, 23(1-2), 33, 34, 42, 55; 26:1, 44; **Ezek** 1:20, 21; 2:6(2), 7; 3:5, 7(1), 21(2), 27; 7:12, 13(2), 19, 23; 8:17; 10:17; 12:2, 6, 24, 25(1); 14:7; 16:14; 18:32; 20:40; 21:17, 18, 26, 37; 23:8, 34, 37, 40, 45; 24:7; 26:5, 14; 28:10; 30:3, 9; 31:7, 14; 33:31; 36:8, 9; 39:5, 10; 40:4; 41:7; 42:5, 6, 8, 13, 14; 44:2; 45:14; 47:1, 5, 9, 12; 48:14; **Ps** 1:6; 3:8; 5:3, 5, 10, 11, 13; 6:3(1-2), 6, 9; 9:5, 11, 13, 19; 10:3, 14; 11:2, 7; 12:2(1-2); 16:1, 10; 17:6; 18:28, 29, 30, 32; 21:4, 7, 8, 13; 22:9, 12 (1-2), 17, 25, 29; 23:4(2); 24:2; 25:5, 6, 11, 16, 19, 20, 21; 26:1, 3; 27:10, 12; 28:5, 6; 30:6; 31:4, 10, 11, 14, 18, 22; 32:4; 33:4, 9; 34:10; 35:7, 20; 36:3, 10; 37:2, 9, 17, 20, 24(2), 28, 37; 38:3, 8, 19; 39:13; 40:13; 41:5, 12(2); **1 Chron** 1:19; 4:9, 14, 40; 5:9, 20(1), 22(1); 7:4; 9:26, 27, 28, 33; 11:19; 12:19, 20, 22, 23, 40, 41; 13:3; 14:15; 15:2(2), 22; 16:25, 26, 33, 34(1-2), 41; 17:2, 5, 25, 27; 18:10; 19:5; 21:8, 13, 24(2); 22:4, 8, 18; 23:28; 24:5; 26:5, 6; 28:3, 6, 9, 10, 20; 29:1(1), 11, 14(3), 15; **2 Chron** 1:3, 4, 9, 10; 2:4, 5(1), 7, 8; 4:18; 5:11, 13(1-2), 14; 6:13, 18(1); 7:3(1-2), 6, 7(1-2), 9; 8:11(2), 14; 9:21; 10:1, 15; 11:4, 14(1-2), 17, 21, 22; 12:2, 13, 14; 13:11, 12, 18; 14:5(1-2), 6, 10, 12, 13(1-2); 15:5, 6, 7, 9(1), 15; 16:9(1-2), 10; 17:3; 18:33; 19:3, 6(1), 7; 20:12(1), 15(1), 21; 22:1; 23:6(2), 8, 14; 24:7; 25:7, 8(2), 16(2), 20(1); 26:8, 10(1-2), 15(1), 18(2), 21; 28:11, 13(1-2), 19(1-2), 21, 27; 29:6, 11, 24, 25, 34, 36; 30:3(1-2), 5, 9(1-2), 17, 18(1,3), 24, 26; 31:10, 18; 32:7, 15(1), 29; 34:21; 35:15, 23.

[225] These are found at Gen 2:5; 35:18; 45:11; Lev 18:27; Ezek 2:5(1); 1 Chron 5:1; 6:39; 22:14; 26:10; 28:5; 2 Chron 6:30, 36(2); 20:9; 21:6; 24:25.

206

no speech-functional value in the subjective values of their interpersonal grammar. Causal כי falls into this category of relative syntactic independence when it functions in a non-content domain, but is preposed before the clause(s) to which it stands related.[226] Very few cases of non-content causal כי in preposed position have been found in my corpus.[227] Consider, for example, Ezek 18:18.

(104)   Ezek 18:18

<div dir="rtl">

אָבִ֞יו כִּֽי־עָ֣שַׁק עֹ֗שֶׁק גָּזַל֙ גֵּ֣זֶל אָ֔ח וַאֲשֶׁ֥ר לֹא־ט֖וֹב עָשָׂ֣ה בְּת֣וֹךְ עַמָּ֑יו וְהִנֵּה־מֵ֖ת בַּעֲוֺנֽוֹ

</div>

As for his father, since he practiced extortion and robbery of [his] brother and did what is not good among his people, behold, he died for his sin.

Cooper (1994:190) observes that Ezek 18:5–20 serves as the basis for the thesis stated in 18:4, that "the soul who sins will die." Block (1997:554) too notes that this chapter "is cast in the form of a complex disputation speech" (cf. Allen 1994:267–268). Given the context, the כי clause here is best taken as epistemic. That is, the assertion that the father died for his own sin is proven true by the fact that he lived a wicked life. This fits with Cooper's (1994:188) suggestion that Ezekiel makes this assertion in order to challenge Judah's disavowal of responsibility for the Babylonian exile. The fact that the wicked father died for his own sin is evidenced by his wicked life, and the fact that Judah was facing exile for their own sin is proven by their history of rebellion against God (cf. Ezek 17:16 in the preceding context).

This causal כי clause also parallels the previous statements headed by a predictive (i.e. epistemic) conditional כי in verse 5—"if X, then surely Y." If there is a righteous person who does right (vv. 5–9), he will "surely live." If a righteous father has a wicked son (vv. 10–13), then the son will "surely die." These predictive statements serve as support for the claim being argued that those who sin will die. Then, the case of a righteous son born to a wicked father (vv. 14–20) is considered. While the righteous son will live (verse 17), the father will die for his own

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[226] Recall from section 5.4 that the absence of speech-function is a characteristic of preposed position and not necessarily something inherent to a connective that may appear in that position.

[227] Gen 3:14, 17 are speech-act uses. Lev 11:4, 5, 6, 7; 11:7; Ezek 18:18; and Ps 16:8 appear to be best taken as epistemic. Note that in Lev 11:4–7 and Ezek 18:18, there is a left-dislocate before the כי clause activating the topic of the sentence. However, I still take the כי clauses in these cases as preposed before the main clause it is modifying. Since the constituent is indeed dislocated, it should not be identified with the main clause (on such constructions, see Westbury 2014; 2016).

sin (verse 18). However, in verse 18, a causal כי is used to support the assertion. While conditional כי does prefer preposed position (as in verse 18), a conditional reading is blocked by several features of the text. First, conditional כי clauses overwhelmingly prefer to employ a *yiqtol* verb form, as in Ezek 18:5 (cf. Bandstra 1982:126).[228] However, a *qatal* is used in verse 18. Additionally, the content of the כי clause is already established in verses 10–13. This fits with the use of preposed causal clauses to create cohesion in texts, but not with a conditional interpretation. Thus, in line with the predictive conditional כי in verse 5, here in verse 18 the causal כי clause presents the grounds for the epistemic conclusion that the father died for his own sin. Because of its preference for initial position and association with the epistemic domain of use, "since" is probably the best English translation in this case.

What is interesting in terms of syntactic dependence is that the preposed position is incompatible with main clause phenomena type 1, which reveal independent speech-function. For example, such כי clauses cannot head an interrogative clause type, even though this would be perfectly grammatical if it were in second position (for instance, in this context it may head an interrogative clause introduced with הלא).[229] Neither in the corpus used in this study, nor any other examples of which I am aware does a causal כי head an interrogative clause in preposed position. Of course, this is to be expected in light of the cognitively and functionally motivated crosslinguistic constraints on such phenomena, as argued in section 5.4. Thus, while such clauses have their own modal value (and can therefore serve as the basis for the epistemic stance taken in the main clause), they do not have their own speech-functional value due to their preposed position. Therefore, what sets these cases apart syntactically is their compatibility with main clause phenomena type 2 (and attendant characteristics, such as discursive independence constituting a separate focal domain), and their incompatibility with main clause phenomena type 1 (due to their preposed position, as discussed in chapter 5, drawing on Verstraete 2007:147–151, 179–181).[230]

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[228] There Bandstra counts 151 cases in the Pentateuch where a conditional כי clause employs a *yiqtol* and only 4 cases where it employs a *qatal*.

[229] The first כי in 2 Sam 23:5 heads a rhetorical question introduced by לא–כן and the fourth heads a rhetorical question headed by לא. The causal כי in Ps 56:14 may possibly be read as heading the following הלא interrogative (cf. JPS1985; NIV).

[230] Note that in Modern Hebrew, causal כי never occurs in first position, but always after the clause(s) it modifies (Bliboim 2013:408–409). This may be due to the syntactic reflexes of subjectification (sections 5.2 and 6.2.). However, Modern Hebrew causal כי continues to function in the content domain and can be syntactically integrated into the main clause (Glinert 1989:351).

In light of the above discussion, I have identified 8 cases of causal כי that can be categorized as cases of modal subordination, amounting to just over 1% of uses.[231] While there are only a few such cases, it is worth noting that modal subordination was only found with speech-act and epistemic causal כי, but not with metalinguistic uses. This fits with the strong tendency for metalinguistic uses to be in final or medial position. Furthermore, between speech-act and epistemic uses with modal subordination, cases of modally subordinate epistemic כי represent a much larger percentage of its total uses. 10.5% of epistemic uses are found with modal subordination while only 0.5% of speech-act uses are found with modal subordination. This appears to support the tentative internal ordering of non-content uses represented in Figure 6.2 above according to subjectivity and syntactic (in)dependence. Thus, while all non-content domains of use are compatible with syntactic coordination, the epistemic domain appears to be closer to the boundary between less independent syntax and less (inter)subjective semantics.

8.2.1.3   *Syntactic distinctions between non-content uses*

The above comments have largely focused on non-content uses as a category and the instances in which they may be considered cases of coordination or modal subordination. However, in addition to the clear semantic distinctions discussed in section 8.1 above, the different non-content uses also have formal tendencies that serve to distinguish them from each other. Concerning metalinguistic causal כי, it is the only one that never occurs in first position in my corpus (or any other texts of which I am aware). Furthermore, when a causal כי appears in the medial position after some specific element of the main clause, it has an overwhelming preference for the metalinguistic domain.[232] The semantic and functional motivations for this formal distribution have already been given, especially at various points in chapter 5, but also touched on in section 6.2, and just above in section 8.2.4. These are the main formal characteristics that appear to separate the metalinguistic use from speech-act and epistemic causal כי.

As for the distinction between speech-act and epistemic uses, this is based on the distinction discussed in section 5.2 between the interpersonal grammar of modality on the one hand, and speech-function on the other, both of which canonically coordinate clauses posses. The

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[231] Gen 3:14, 17; Lev 11:4, 5, 6, 7; Ezek 18:18; Ps 16:8.
[232] The only exception to this in my corpus or the other texts I have consulted appears to be 2 Chron 22:11 where the causal כי functions in the content-volitional domain.

essential grammatical distinction between epistemic and speech-act uses is that the former ground the modal value of the main clause while the latter ground the speech-functional value of the main clause. Verstraete (1999) carefully delineates this basic distinction using grammaticality tests on causal connectives functioning in each of these domains. These grammatical tests that show this syntactic distinction typically involve intonational analysis and the construction of ungrammatical utterances to demonstrate incompatibility, for example where a speech-act conjunction is mismatched with a main clause overtly coded as an epistemic stance (e.g. by introducing overt modal adverbs, etc.). For instance, the causal clause in (105a) is clearly epistemic. This is clear semantically, because a content reading clashes with our background knowledge of the cause-effect structure of the world. But this is also clear syntactically, because it can support the main clause when its epistemic modality is in focus, as seen in (105b) and highlighted by the addition of the modal particle "must" with focal stress. However, a speech-act causal clause, such as the one in example (106a) is ungrammatical when paired with a main clause in which its epistemic modality is in focus, as in (106b). That is, the causal clause in (106a) provides the justification for why the speaker said "John is here," and is therefore functioning in the speech-act domain. However, when the main clause is overtly formulated as asserting an epistemic stance, such a speech-act causal clause becomes ungrammatical.

(105)   a. John is here, because I saw him.
         b. John MUST be here, because I saw him.

(106)   a. John is here, because I don't want you to run into him unprepared.
         b. #John MUST be here, because I don't want you to run into him unprepared.

The obvious reason for these patterns of (un)grammaticality is that epistemic causal clauses relate to the modal value of the main clause, while speech-act causal clauses relate to the speech-functional value. However, such tests are not possible with a dead language confined to a relatively small corpus. Thus, we must be content with crosslinguistic evidence and the absence of counter evidence within the Hebrew Bible and extra-biblical texts.

Despite these limitations and the need for further research on this point, the analysis of causal כי in my corpus appears to support the generalization that epistemic כי will be compatible with main clauses where it is the epistemic modality that is in view (overtly marked by modal

particles or infinitive absolute constructions), while speech-act כי would clash with these contexts. For example, an epistemic causal כי would be compatible with main clauses containing the construction "infinitive absolute of root X + verb of root X." That construction does not always express epistemic modality, but when it does and is followed by a causal כי clause, the כי consistently signals an epistemic relation.[233] Furthermore, epistemic causal כי will generally be incompatible with imperative or interrogative main clauses, but would naturally fit with speech-act causal כי since it is such uses that are employed to ground the speech-functional value of those clause types.[234]

These brief observations show that, in addition to the syntactic characteristics that unify non-content uses of causal כי, there are also several formal characteristics of syntactic distribution and preferences that distinguish between the various non-content uses, as well as the clear semantic distinctions discussed in section 8.1. Broadening our scope of inquiry, the main syntactic distinction between content and non-content domains of use is that the former are compatible with integration phenomena while the latter with main clause phenomena.

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[233] See Van der Merwe *et al.* (2017:§20.2, especially 20.2.2.2) for a discussion of the various uses of the infinitive absolute. Waltke & O'Conner (1990:585) note that, "*Affirmation* is the most straightforward role for an infinitive absolute…" An example of this from my corpus is found in Ezek 3:21. Outside my corpus, see Ex 18:18; Judg 13:22; 1 Sam 14:30; 25:28. Jer 26:15 is especially clear since this infinitive absolute construction is used with the lexeme ידע, highlighting its epistemic nature. Deut 31:29; 2 Sam 17:10; 1 Kgs 19:10, 14; Isa 24:3 may be taken in this epistemic sense, or as expressing the "extreme mode" of the event (cf. Van der Merwe *et al.* 2017:§20.2.2.2). Ex 31:34 appears to employ this construction with a speech-act causal כי. However, the infinitive absolute appears to be communicating deontic (i.e. imperative) rather than epistemic modality in this case (cf. Num 13:30; Deut 7:26; 15:10; 21:23; Judg 5:23; Jer 22:10). Thus, a speech-act causal כי makes sense in such cases. Gen 31:30 appears to have this construction with a content volitional כי (cf. Isa 61:10; Jer 13:17). These appear to fall into the liminal category of free indirect speech, which was discussed as third person subject of consciousness epistemic blends in section 4.7 and represented in Figure 4.8. That is, adding modifiers of epistemic modality to a main clause expressing the rational for a third person volitional action naturally draws the reader into the perspective of the character, therefore making the construal of the causal relation more subjective. Also see the discussion of the use of כי in free indirect speech in section 8.1.5 above. Thus, these cases also have a principled explanation.

[234] Verstraete (1999) notes that there are principled exceptions to this. These would be cases where there is some recoverable epistemic stance even in the imperative or interrogative main clause which is justified by an epistemic causal כי, especially in the case of rhetorical questions in which the speech-functional value is actually not interrogative, but declarative in order to take an epistemic stance concerning the implied answer. Specifically, sometimes a causal clause may provide an argument for why a command is reasonable (and thus be epistemic, not speech-act) rather than the speaker's motivation for issuing the command. Of course, these two things are not always perfectly distinct. Thus, this also constitutes a fuzzy boundary. An example of this is Jer 37:9 where the distinction between the motivation for issuing a command and the argument for why the command is epistemically valid is more fluid. While interrogative and especially imperative main clauses are overwhelmingly justified by speech-act causal כי, there are principled exceptions to this as well. For instance, 1 Chron 11:19 and 2 Chronicles 25:8 (2) seem to be a cases of an epistemic causal כי motivating the implicit assertion of a rhetorical question. Thus, the feature of the main clause being supported by the כי clause is the epistemic modal value of its interpersonal grammar, rather than its speech-functional value.

8.2.2 Free and bound subordinate syntax of content causal כי

Moving from the more independent syntax of non-content uses that are compatible with coordination and modal subordination, I now come to the more dependent syntax of content (non-)volitional uses, which are compatible with free and bound subordination. These uses and their syntactic behavior do not factor as significantly into the overall profile of causal כי, since, as noted above, they only account for about 20% of uses. As illustrated in section 8.1.4, these uses semantically constrain an objective construal in which the causal relation stands outside the deictic center of communication. However, within content uses, the further distinction between volitional and nonvolitional relations can be made. In the former, the causal relation must be interpreted with reference to a character subject of consciousness responsible for the causal relation. In the latter, the causal relation is interpreted without reference to any subject of consciousness and is wholly located in the external cause-effect structure of the world. As has been argued throughout this study, these semantic characteristics have syntactic corollaries. Building on the foundation laid in the discussion of integration phenomena and discursive (in)dependence in chapter 5, I will provide examples of causal כי which illustrate cases of free and bound subordinate syntax, motivated by the fact that such causal relations do not posses their own subjective values of interpersonal grammar. Thus, both volitional and nonvolitional uses may have either bound or free subordinate syntax. What distinguishes them is whether the causal clause is discursively independent (free subordination) and constitutes a separate focal domain from the main clause or discursively dependent (bound subordination) and falls within the scope of the main clause in a single focal domain.

8.2.2.1 *Free subordination of content causal כי*

As just mentioned, free subordination lacks the subjective values of interpersonal grammar that characterize the more independent syntax of coordination and modal subordination. However, such clauses do not fall at the very end of the subordinate pole in the coordination-subordination continuum. Rather, while lacking speech-functional and modal values (and therefore compatibility with main clause phenomena), they nevertheless constitute a separate focal domain from the main clause. This was referred to as discursive independence. Since the defining feature of discursive independence is the presence of a distinct focal domain, overt cases of causal כי with free subordination may be identified by asking whether they have a

distinct focal structure from the main clause to which they stand related. As expected, the only cases of causal כי which were incompatible with main clause phenomena, but also showed overt signs of discursive independence, were content (non-)volitional uses. This is exactly what one would predict based on the correlations between the semantics and syntax of causal connectives summarized in section 5.5.

However, as discussed in section 5.2.3, the boundary between focal domains is marked by fairly complex intonation patterns and much less precisely by punctuation. Without access to consistent indication of either in terms of how the original texts of the Hebrew Bible would have been spoken and read, we are left with only a few cases where the causal כי clause contains overt constructions that show it has a different focal structure from the main clause.[235] Take, for example, Gen 3:10.

(107)   Gen 3:10

<table>
<tr>
<td>וַיֹּאמֶר אֶת־קֹלְךָ שָׁמַעְתִּי בַּגָּן וָאִירָא כִּי־עֵירֹם אָנֹכִי וָאֵחָבֵא</td>
<td>And he [Adam] said, "I heard your voice in the Garden and I was afraid, because I was naked, and I hid."</td>
</tr>
</table>

In the context, Adam and Eve have just sinned by eating from the Tree of the Knowledge of Good and Evil. Their nakedness is revealed to them and they hide when God calls to them. In verse 10, Adam is responding to God's question "Where are you?" Adam says he was afraid and the causal כי introduces the reason for him being afraid. Thus, it is best taken as a content volitional causal relation explaining the rationale for a character's behavior or mental state (Adam, explicitly profiling himself and projecting himself as a third person character in the object of construal). As explained in section 5.2.3, a unique focal structure in the secondary clause shows discursive independence. In Gen 3:10, the כי clause fronts the predicate of its verbless clause, עֵירֹם, thus putting it in focus. This is because the default constituent order of a

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[235] Gen 3:10; 11:9; 18:15(1); 21:31; 47:4(1); Lev 20:3; 1 Chron 27:23; and 2 Chron 7:2. Such overt indicators of discursive independence are much more common for non-content uses, since these are always discursively independent. For example, when speech-act causal כי provides the basis for a negated command, the כי clause never falls within the main clause scope of negation. To read it otherwise would completely change the interpretation in ways that are excluded by the context or background knowledge of the world. From my corpus, see Gen 19:8; 22:12(1); 31:35(2); 32:11; 35:17; 42:38; 43:5; 48:18; Lev 13:11; 1 Chron 17:5; 27:23.

verbless clause is subject + predicate (Van der Merwe *et al*., 2017:§46.2; cf. Buth 1999). Placing the predicate before the subject marks predicate focus.

In addition to this formal evidence for the discursive independence of the כי clause here, it would also be difficult to make sense of an interpretation that reads it as discursively dependent and constituting a single focal domain with its main clause. On such a reading, the fact that Adam was afraid would be presupposed and the causal clause or its fronted constituent would constitute the sole focal element of the sentence. However, this would make more sense if God's question was "Why are you afraid?" Instead, the question is simply, "Where are you?" In fact, Adam's reply is actually answering a different question. As Hamilton (1990:193) explains, "The man's response does not answer the question that God asks. Instead, it answers the question: 'Why are you hiding?' To be driven into hiding in order to avoid meeting God is abnormal and calls for an explanation." Thus, the fact of Adam being afraid is actually the answer to the very thing being asked (as construed by Adam), and therefore is difficult to take as presupposed. The כי clause then provides further focal information by providing the reason for his fear (cf. Westermann 1994:254).

Comma intonation signaled orthographically with comma punctuation marks such discursive independence and the presence of multiple focal domains (cf. ESV, KJV, NRSV, GNB). That is, Adam's response is structured in such a way as to put in focus both his state of fear and the cause for his fear as new information. Translations that do not separate the כי clause with comma punctuation constrain a reading of it as having bound subordinate syntax, which in turn causes the main clause ("I was afraid") to be interpreted as presupposed (e.g. CEV, HCSB, NET, NASB, NIV, NLT).[236]

Another sign of discursive independence is when the כי clause cannot be the focus of negation in the main clause. For example, consider 1 Chron 27:23.

(108) 1 Chron 27:23

וְלֹא־נָשָׂא דָוִיד מִסְפָּרָם לְמִבֶּן עֶשְׂרִים שָׁנָה   And David did not take up counting

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[236] Note that this difference in construal does not necessarily fall along the lines of more literal versus functional translations. On the one hand, there are both more literal (e.g. ESV) and more dynamic (e.g. GNB) translations that use comma punctuation and therefore constrain an interpretation of discursive independence. On the other hand, there are both more literal (e.g. NASB) and dynamic (e.g. NLT) translations that use commaless punctuation and therefore constrain an interpretation of discursive dependence.

וּלְמֵטָּה כִּי אָמַר יְהֹוָה לְהַרְבּוֹת אֶת־יִשְׂרָאֵל כְּכוֹכְבֵי הַשָּׁמָיִם

those from 20 years old and younger, because YHWH promised to multiply Israel as the stars of the heavens.

Here, the causal כי clause explains the rationale for David's decision to not number all the people of Israel. Not numbering all the people was a token of his faith in the hyperbolic promise to Abraham to make Israel into an innumerable nation (cf. Keil & Delitzsch [1866–91] 1996:3.565; Curtis & Madsen 1910:292; Knoppers 2004:898). Syntactically speaking, the reason the כי clause cannot be discursively dependent on the main clause is the fact that it cannot be the focus of the negation in the main clause. That is, the causal relation is not negated along with the main clause, but rather provides the character's rational for his choice in the main clause. This reveals that it falls outside the scope of the main clause and is discursively independent. If it fell within the scope of the main clause negation, the verse could be interpreted not as saying that David refrained from number those 20 years old and younger, but that he numbered them for a different reason from what is expressed in the כי clause. Such constructions can be followed by an affirmative statement that presents the actual cause. This can be paraphrased, "David did not number them because of reason A. He numbered them because of reason B." Of course in this case, such a reading would be incoherent. Clearly, the negation is confined to the main clause, leaving the כי clause discursively independent as a case of free subordination.[237]

However, the absence of overt markers of discursive independence does not mean a clause must be discursively dependent. Rather, it means that in the absence of overt formal indication and given the written corpus we have, a content (non-)volitional clause may admit interpretations as having either free or bound subordinate syntax. An exception to this is when the causal clause precedes the main clause to which it stands related, which was seen in section 5.4 to only very rarely admit a bound subordination interpretation. Thus, while I have only identified 8 cases where free subordination is formally overt, this can only be considered a lower limit. Based on the flow of given and new information within a particular context and the various intonations patters with which it may be read, a content causal כי clause may or may not be judged to have its own focal structure, even apart from the presence of overt focus constructions

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[237] The use of causal clauses to present a character's subjective motivation for an action make such syntactic phenomena more complex than nonvolitional relations because they still involve subjectivity, but it is distinct from speaker subjectivity. For a discussion of the main similarities and differences, see Verstraete (2007:146–148).

215

such as fronting or contexts which rule out the causal clause being within the main clause scope of negation.

For example, consider the second כי in 2 Chron 22:6(2). This clause is incompatible with main clause phenomena, and therefore excluded from categorization as coordination or modal subordination. However, while not having overt syntactic indications of its discursive independence, upon a close reading it should probably be considered a case of free subordination.

(109)   2 Chron 22:6(2)

<table>
<tr>
<td>

וַיָּ֜שָׁב לְהִתְרַפֵּ֤א בְיִזְרְעֶאל֙ כִּ֣י הַמַּכִּ֗ים אֲשֶׁ֣ר הִכֻּ֣הוּ
בָֽרָמָ֔ה בְּהִלָּ֣חֲמ֔וֹ אֶת־חֲזָהאֵ֖ל מֶ֣לֶךְ אֲרָ֑ם וַעֲזַרְיָ֨הוּ
בֶן־יְהוֹרָ֜ם מֶ֣לֶךְ יְהוּדָ֗ה יָרַ֤ד לִרְא֨וֹת אֶת־יְהוֹרָ֣ם
בֶּן־אַחְאָב֙ בְּיִזְרְעֶ֔אל כִּֽי־חֹלֶ֖ה הֽוּא

</td>
<td>

And he [Joram] returned to be healed in Jerusalem because of the wounds which they inflicted on him in Ramah when he fought Hazael king of Aram. And Azariah, son of Jehoram, king of Judah went down to see Jehoram[238], son of Ahab, in Israel, because he was sick.

</td>
</tr>
</table>

The second כי in this verse introduces Azariah's rationale for visiting Joram, namely, because he was sick. However, the fact that Joram was not well was already given in the very same verse. This does not render the כי clause a redundancy of presupposed information. Rather, the כי clause expresses the character's own motivation for his volitional action to go visit Joram. Thus, it is not the fact that Joram was sick that is newly asserted. What is being newly asserted is that this was Azael's motivation for visiting him. The fact that Azael went to Jerusalem is also newly asserted. However, if the newly asserted כי clause were discursively dependent, this would constrain a presupposed status on the main clause, which does not seem to be the case. Thus, it appears that there are two newly asserted propositions in both the main clause and the causal clause. This would mean that there are two separate focal domains, which in turn would mean that the כי clause is discursively independent and is best taken as a case of free subordination.

The point here is that a כי clause may be discursively independent even in the absence of overt syntactic phenomena suggesting so. However, the complexity of a text's structuring of

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[238] An alternate spelling of Joram.

given and new information (as well as the variability of how often already given information needs re-priming) at the clause and discourse levels may admit multiple readings.[239] Thus, again, the 8 cases mentioned above (just over 1% of causal כי uses) with overt syntactic signs of discursive independence can only be taken as a lower limit to the total number of כי clauses with free subordination in my corpus. Since only non-content uses may have coordination or modal subordination (as argued so far in section 8.2), the upper limit on the instances of free subordination would be the total number of content uses, minus those cases with clearly bound subordination. To answer this question, I now turn to the final syntactic category on the coordination-subordination continuum—bound subordination.

8.2.2.2 *Bound subordination of content causal כי*

In addition to the absence of subjective values of interpersonal grammar, the syntax of bound subordination is set apart by the fact that the subordinate clause falls within the scope of the main clause and both constitute a single focal domain. Among the various integration phenomena discussed in chapter 5 that reveal bound subordination, the ability to introduce the answer to a WH-question is perhaps the clearest indication of this level of syntactic dependence when it comes to content causal כי clauses. However, such cases with overt signs of integration represent less than 1% of causal כי usage, with only five unambiguous instances in my corpus.[240] As with the other levels of syntactic (in)dependence discussed above, it is not the overt presence of, but compatibility with syntactic phenomena that determines there location on the coordination-subordination continuum. Nevertheless, as with free subordination just mentioned, the integrated

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[239] For details, see Lambrecht's (1994) work on information structure from a general linguistic perspective. Note especially his discussion on page 111 where he describes cases in which the focal status given to an element that has already been introduced in a discourse depends on, among other things, "…the mental effort the speaker assumes is necessary to reactivate the referent…" Especially in written texts, this can make the focal status of a constituent ambiguous, since the author may or may not consider even already-introduced elements as being in need of reactivation. It is only in the complex intonation patterns of how the texts were intended to be read (the details of which are unrecoverable to us) that such ambiguities may be clarified (though spoken discourse also has its own ambiguities). Furthermore, Lambrecht (1994:65–73) also discusses cases of "pragmatic accommodation" in which new information is presented as given, complicating matters further. For an overview of applications to Hebrew, see Heimerdinger (1999), Westbury (2014, particularly 52–60 and 181–192 where he discussed activation states and the need for reactivation after decay), and Van der Merwe *et al*. (2017:§47–48).

[240] These are Gen 20:11; 21:30(1); 26:9; 27:20; 31:31(1). Some examples outside my corpus include Ex 1:18–19; 18:15; Num 22:28–29; 1 Kgs 21:5–6; 2 Kgs 8:12. 1 Chron 19:3 (and the parallel text in 2 Sam 10:3) may possibly be a case where a causal כי is the focus of an interrogative clause: הַמְכַבֵּד דָּוִיד אֶת־אָבִיךָ בְּעֵינֶיךָ כִּי־שָׁלַח לְךָ מְנַחֲמִים. Compare the ESV rendering, "Do you think, because David has sent comforters to you, that he is honoring your father?" In other words, it is presupposed that Hanun (the addressee) sees David as an ally. What is being questioned is the basis for such a conclusion. Compare Num 27:4.

status of clauses with bound subordination is often ambiguous (especially with ancient texts) since the complex intonation patterns with which a sentence is spoken is what constrains interpreting a main and secondary clause as constituting one or two focal domains. Thus, the five unambiguous cases with integration phenomena are also best taken as a lower limit of the number of causal כי clauses with bound subordination. An example of causal כי introducing the answer to a WH-question occurs at the beginning of the direct quotation of Abraham in Gen 20:10–11.

(110)   Gen 20:10–11

<table>
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<td>

10 וַיֹּ֙אמֶר֙ אֲבִימֶ֔לֶךְ אֶל־אַבְרָהָ֖ם מָ֣ה רָאִ֑יתָ
כִּ֥י עָשִׂ֖יתָ אֶת־הַדָּבָ֥ר הַזֶּֽה׃
11 וַיֹּ֙אמֶר֙ אַבְרָהָ֔ם כִּ֣י אָמַ֗רְתִּי רַ֚ק אֵין־
יִרְאַ֣ת אֱלֹהִ֔ים בַּמָּק֖וֹם הַזֶּ֑ה וַהֲרָג֖וּנִי עַל־
דְּבַ֥ר אִשְׁתִּֽי
</td>
<td>

10 And Abimelech said to Abraham, "What did you see that you did this thing?"
11 And Abraham said "Because I thought (lit. said), 'Surely there is no fear of God in this place, and they will kill me on account of my wife.'"
</td>
</tr>
</table>

Here, Abimelech explicitly asks Abraham to explain the rationale for his volitional action and Abraham introduces the answer with a causal כי. Thus, as noted above in section 8.1.4.1, these cases lend themselves to interpretation as a content-volitional causal relation. What is syntactically interesting is that ability to introduce an answer to a WH-question is one of the integration phenomenon discussed in section 5.2.2. As explained there, the distinctive feature of bound subordination is discursive dependence on the main clause. Compatibility with integration phenomena (clefting, answering WH-questions, etc.) reveal bound subordination because they are focalizing structures, and the ability for a secondary clause to be the focus of the clause complex reveals that it falls within the scope of the main clause, both forming a single focal domain.

Miller (2003:107) seems to make the same observation when she writes, "…causal כי at the beginning of a direct quotation does not bear a relationship to a matrix verb within the quotation, but rather is pragmatically linked to a preceding quotation or action within the narrative context." By this, Miller appears to affirm that the causal clause is essentially a subordinate adjunct to the

218

previous quotation or action in the narrative. This seems clear from the fact that she paraphrases the same sort of construction in 1 Kgs 21:5–6 by supplying what she sees as an elided clause.

(111)   1 Kgs 21:5–6

5 וַתְּדַבֵּ֨ר אֵלָ֜יו מַה־זֶּה֙ רוּחֲךָ֣ סָרָ֔ה וְאֵינְךָ֖ אֹכֵ֥ל לָֽחֶם׃
6 וַיְדַבֵּ֣ר אֵלֶ֗יהָ כִּֽי־אֲדַבֵּ֞ר אֶל־נָב֣וֹת הַיִּזְרְעֵאלִ֗י

5 She said to him, "Why is your spirit sullen so that you are not eating food?"
6 He said to her,   "[I am sullen and do not eat] *because* I spoke to Naboth the Jezreelite…"

Notice that in such an analysis, the implied main clause "I am sullen and do not eat", as well as the fact that some causally related circumstance brought it about, is already given and therefore pragmatically presupposed. What is in focus is the new information supplied by the causal clause. Therefore, it is that content that is in focus. This demonstrates why introducing the answer to a WH-question is a focalizing structure that indicates bound subordination. Such cases of causal כי are semantically and syntactically equivalent to clause complex type 1 presented in Table 5.1 above. The only difference is that the main clause is unrepeated for economy.

Additional evidence of the bound subordinate syntax of these cases is the fact that their usage is parallel to other constructions with clear bound subordination. For example, consider Ezek 21:12.

(112)   Ezek 21:12

וְהָיָה֙ כִּֽי־יֹאמְר֣וּ אֵלֶ֔יךָ עַל־מָ֖ה אַתָּ֣ה נֶאֱנָ֑ח
וְאָמַרְתָּ֗ אֶל־שְׁמוּעָ֤ה כִֽי־בָאָ֔ה

And when they say to you, "Why are you groaning?" you will say to them, "Because of the news that is coming."

Here, instead of a content volitional כי with bound subordination, the request for the rationale of a character's action is answered with a prepositional phrase headed by אֶל.[241] This shows that introducing the answer to a WH-question is indeed a sign of bound subordination, since prepositional phrases are fully subordinate to the main clauses to which they stand related. Thus,

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[241] Note that here אֶל is a near synonym to על, which may function as a causal preposition (see Van der Merwe *et al.* 2017:§39.3).

just as parallel usage with uncontroversially coordinating structures supports the coordinate status of non-content uses as described in section 8.2.1.1 above, so too parallel usage with the most subordinate structures reveals the bound subordinate status of these non-content uses of causal כי.

This syntactic distribution of content uses also complements that of non-content uses. Non-content uses with syntactic coordination or modal subordination are incompatible with such integration phenomena. While there are no original speakers to interrogate about the ungrammaticality of utterances, I have observed that non-content uses never occur with integration phenomena in any of the texts I have examined. If construed as syntactically integrated, non-content uses would take on a content interpretation (though such content interpretations usually result in contradiction with the context or shared background knowledge).[242] For this reason they cannot be analyzed as having bound subordination. And, because they are compatible with main clause phenomena as discussed above, they also cannot be analyzed as having free subordination. Thus, just as content causal relations cannot be combined with main clause phenomena without changing their interpretation (as discussed in section 8.2.1.1), non-content relations also cannot be combined with integration phenomena without changing their interpretation. Thus, the syntactic analyses of both non-content and content uses of causal כי are mutually informative and supportive (cf. Table 8.2 below).

8.2.3 Masoretic pointing, modern punctuation, and the interpretation of causal כי

As I have noted throughout, the semantic and syntactic interpretation of causal כי may be significantly impacted by the pattern of intonation with which the main and כי clauses are read and the punctuation with which it is rendered in translation. When we encounter ambiguity in scripture, Augustine (1887:3.2) tells us that "…we must see in the first place that there is nothing wrong in our punctuation or pronunciation." Specifically regarding the analysis of כי, Claassen (1983:44) has also pointed out that appropriate punctuation in translation is needed to make the causal relation more transparent. A careful study of whether the Masoretic system of conjunctive and disjunctive accents has any correlation to the discursive dependence or independence of adverbial clauses would be extremely valuable. If precise correlations exist, it would give us

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[242] For example, as noted above in my discussion of bound subordination in section 8.2.2.2, when speech-act causal כי provides the basis for a negated command, the כי clause cannot fall within the main clause scope of negation without completely changing the interpretation.

access to an ancient interpretation of such interclausal relations that "…can be traced back to the earliest surviving Bible manuscripts in the Second Temple period" (Kahn 2013:16).[243] Indeed, such exegetically significant indications are in fact present in the Masoretic system. As Khan (2013:37) explains, the system "… had an exegetical function in two respects. The chant marked the semantic and syntactic connections between words and phrases. It also marked the position of stress in a word, which can be crucial in understanding the correct meaning." Perhaps the significance of the Masoretic system for interpretation at the word and phrase level can be extended to the interclausal level if it can be shown that the pauses associated with the various conjunctive and disjunctive accents correspond to comma or commaless intonation as described in chapter 5. However, it has also been observed that the accent system does not always divide the text into syntactically parallel portions, but also into what the Masoretes regarded as logically or even rhetorically parallel segments (Price 1990:143, 175). Thus, due to the limitations of the current project, I have sought to be very conservative in drawing any conclusions from the Masoretic accents. Nevertheless, I would like to make one basic observation on this topic— major pause may presumably constrain more semantically subjective and syntactically independent interpretations.

The above caveats withstanding, it seems that there are at least some cases in which the Masoretic system in the BHS would constrain a particular interpretation of causal כי, both semantically and syntactically. In section 5.2.3, I discussed the relationship between comma(less) intonation on the one hand and semantic subjectivity and syntactic (in)dependence on the other. It was argued that comma intonation may be compatible with both content and non-content interpretations (depending on compatibility with main clause phenomena), but resists bound subordinate syntax altogether. Near the end of section 5.4, it was also pointed out that period intonation constrained non-content semantics and coordinate syntax. Therefore, the greater pausal values associated with the stronger disjunctive accents (e.g. *silluq*, *atnach*, etc. Price 1990:12; Khan 2013:38) would presumably constrain the interpretation of causal כי as not having bound subordinate syntax. In cases where the pause separates two sentences (the *silluq*) or even paragraphs (the *parashiyyot*), these would presumably be associated with period

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[243] Further along, Khan (2013:39) notes, "Since the syntax could in many cases be interpreted in more than one way, the accents reflect one particular exegesis of the text." Concerning the Tiberian pointing system, Joosten (2015:32) notes: "…the information they transmit is valuable and old, possibly reflecting the same age as the consonantal text…The Tiberian vocalization is to be adopted unless there is evidence showing that it is secondary." Cf. Price (1990:10–11).

221

intonation and constrain some non-content semantic interpretation and coordinate syntax on the causal כי.[244] Of course, these accents don't always line up with verse divisions (e.g. Isa 36:16; cf. Khan 2013:40–41). By contrast, conjunctive accents between causal כי and its main clause are to be read with no pause between clauses, which would presumably constrain content domain semantics and bound subordinate syntax. While an in-depth analysis of this topic is beyond the scope of the current project, the basic point being made here is that even if the Masoretic accent system does not precisely line up with syntactic divisions, the (non-)pausal values associated with the accents would appear to at least be a strong constraint on the semantic and syntactic interpretation of causal כי and point to an ancient exegetical tradition of how they were read. Nevertheless, further research is needed before drawing any systematic conclusions.

In light of the impact pause and punctuation have on the sematic and syntactic interpretation of causal כי, the punctuation employed in modern translations when handling such texts will clearly have tremendous influence on how they are understood. That a misplaced comma can significantly change the reading of a text has often been illustrated with "the now infamous panda who *eats, shoots and leaves* vs *eats shoots and leaves*" (Crystal 2015:13). In the case of כי, when a translation renders a כי clause without comma punctuation, this constrains a content reading semantically, and bound subordination syntactically, since "'No punctuation' is the ultimate marker of semantic tightness" (Crystal 2015:234).[245] This will also affect the construal of the information status of the causal and main clause as given, new, or reactivated, for the reasons discussed in chapter 5.2 and 5.4 and illustrated with causal כי in section 8.2.2. Generally, for example, a causal כי following its main clause and not separated by comma (or some other disjunctive) punctuation will constrain the main clause as given and the causal clause or one of its constituents as the single focal element of the clause complex, since it would be discursively dependent and form a single focal domain with the main clause. By contrast, a causal כי clause following the clause to which it is related and separated by period punctuation (and perhaps also the colon, semi-colon, and to a lesser degree, the comma) would constrain a

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[244] Several cases of כי beginning one of these paragraph divisions will be noted in section 9.2.2 where I discuss the function of כי as a discourse marker.
[245] While these comments are primarily aimed at English translations, these may be more or less generalizable, since the system of punctuation used in English, "…with minor variations, is in use today in practically all alphabetic writing systems in the world, and many nonalphabetic ones, with a set of uses that is remarkably similar across languages" (Lawler 2006:290).

non-content interpretation and coordinate syntax.[246] Comma punctuation at minimum constrains an interpretation of separate focal domains, and thus some newly asserted information in each clause.[247]

However, we must also acknowledge the presence of real interpretive ambiguities that simply cannot be resolved based on linguistic considerations alone. Just after the words cited above from Augustine (1887:3.2) concerning how to judge between competing interpretations, he continues, "But if both readings, or all of them (if there are more than two), give a meaning in harmony with the faith, it remains to consult the context, both what goes before and what comes after, to see which interpretation, out of many that offer themselves, it pronounces for and permits to be dovetailed into itself." With this we must concur.

8.2.4 The connective versatility of causal כי

A characteristic of causal כי syntax that must also be noted is its versatility in connecting sections of text beyond single, contiguous clauses. A causal כי clause may relate larger sections of text beyond individual clauses, it may relate clauses across a span of intervening text, and it may relate text preceding and following the כי clause simultaneously. It has already been noted by many that כי may connect sections of text above the clause level (e.g. Bandstra 1982; Aejmelaeus 1986; Van der Merwe 1993; Meyer 1998; 2001).[248] As Bandstra (1982:162) observes, "Ky can function on the larger discourse-level to tie not only clauses but also paragraphs and larger units together, and provide transitions from one to the other."[249] For example, Bandstra (1982:162) references Gen 15:16, noting that "the ky clause ('For the iniquity of the Amorites is not complete to this point') does not explain just the preceding clause ('in the fourth generation your descendants will come back here') but the entire paragraph (verses 13–16b) which relates the 400 years' sojourn in a foreign country." Similarly, Van der Merwe

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[246] Crystal (2015:233) explains: "Semicolons reinforce the link between clauses that coordinate ideas. Commas do this too, as we've just seen, but they also reinforce clauses where one idea is subordinated to another, as shown by the use of subordinating conjunctions." Cf. Quirk *et al.* (1985:1615)

[247] A comma may also be used to divide independent clauses connected with a coordinate conjunction (Stilman 2010:79).

[248] Concerning Ps 83:3 and 6, Meyer (2001:58) concludes: "To describe these two כִּיs as subordinate conjunctions would not do justice to what they are doing here. The relations created by the כִּיs are between units larger than just clauses."

[249] Joüon & Muraoka (2006:594, §167.p-q) also note that conditional כי is capable of governing multiple clauses.

(1993:41) observes that the כי in Ps 1:6 provides the grounds for the entire preceding text. Many more examples could be multiplied.[250]

The connective diversity of causal כי continues. In 1 Chron 23:25, there appears to be a content volitional causal כי relating clauses across intervening text.[251]

(113)   1 Chron 23:25

<table>
<tr>
<td>כִּי אָמַר דָּוִיד הֵנִיחַ יְהוָה אֱלֹהֵי־יִשְׂרָאֵל לְעַמּוֹ
וַיִּשְׁכֹּן בִּירוּשָׁלַ͏ִם עַד־לְעוֹלָם</td>
<td>For David said, "The LORD God of Israel has given rest to his people and he dwells in Jerusalem forever"</td>
</tr>
</table>

As observed in section 8.1.4.1, the כי אמר construction has a significant association with content-volitional causal כי. However, the closest volitional actions performed by David that could be motivated by such reasoning are in verses 2–6 where he calls for the Levites to be gathered and organized in Jerusalem for permanent service in the house of the Lord which would now be fixed there. After all of the details of the census, David's rationale for this is finally given in verse 25.[252]

Causal כי may also occur in a series. These may be what Bandstra (1982:162) calls "secondary" causal כי in which a subsequent כי explains a preceding כי. For example, in 2 Chron 30:9, the Israelites are commanded to obediently observe temple worship. The next verse begins with a causal כי, which gives the rationale for this command. Namely, if they obeyed, God would return from their captors their fellow Israelites who had been taken in exile. This rationale itself is then supported by an additional כי clause that asserts God is gracious and will not ignore obedience.[253] There may also be a series of parallel causal כי clauses all providing multiple grounds for the same preceding clause. This appears to be what Muilenburg (1961:148) had in

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[250] The only obvious restriction on the ability of causal כי to relate to larger segments of text would be in case of bound subordination, since a discursively dependent כי clause could not be integrated into multiple clauses simultaneously. Alternatively, more syntactically independent and semantically subjective causal כי clauses would lend themselves more easily to functioning at the paragraph level. However, more focused research on this point would be needed to draw any quantitative conclusions.

[251] Cf. Schleppegrell (1993:334) on *because* in English.

[252] Schwenter (2000:266) observes a similar phenomenon with Spanish causal connectives (cf. Couper-Kuhlen 2012). See Keil & Delitzsch ([1866–91] 1996:3.547) for an alternate explanation of the כי clause in 1 Chron 23:25 that seeks to relate it to the immediately preceding text. However, Schleppegrell (1991:334) notes that in certain cases, "The *because* sequence makes both local and global links" simultaneously. The example discussed there is very similar to what we find with כי in Psalm 1:6. Thus, such cases may not be a case of "either or" but "both and."

[253] Bandstra (1982:162–163) also lists Gen 31:31, 35; 47:4, 20; Deut 12:31.

224

mind when he noted: "The rhetorical function of כי is illustrated nowhere so clearly as in its tendency to appear in successive lines or sentences, both in prose and in poetry."[254]

Another unusual connective arrangement of causal כי is that it may relate to both the preceding and following clause simultaneously, in what may be thought of as a Janus structure.[255] That is, the כי clause provides the grounds for both the preceding and following clause. As examples, Bandstra (1982:162) notes Gen 8:21; 13:6; Lev 20:19; 21:6; Num 9:13; Deut 15:11. In light of such connective versatility only briefly sampled above, Bandstra's (1983:129) observation holds true that "One of the problems facing the researcher on the motive clauses is how to decide the scope of a motivation: does it refer to a single preceding legal statement or to a paragraph of prescriptions dealing with the same subject?" This problem extends to the variety of uses for which causal כי is employed.

The only addition I would like to suggest to this well-known connective diversity of causal כי is that such an increasing scope over larger and larger texts may be a major contributing factor to the development of causal כי as a discourse marker. Especially with causal relations that bear a looser (i.e more abstract) relationship to the preceding block of text, these may be reinterpreted more schematically as markers of continuing discourse. This may be especially clear in several of the cases where כי introduces the beginning of a paragraph after the *parasha petuḥa* (פ) or *setuma* (ס) marking a new section.[256] I will discuss this further under the use of כי as a discourse marker in section 9.2.2.

8.2.5   Summary of causal כי syntax

The syntactic distribution along the coordination-subordination continuum of the 617 cases identified as causal כי in my corpus is summarized in the following table.

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[254] As examples, he cites Gen 3:19; Isa 6:5; 9:3–5; 10:20–23; 15:1, 5–6; 25:1–2, 4; 26:3–5; 28:18–22; 43:2 ff.; 57:14–16; 65:8–10; Job 3:24 f.; 1 Chron. 29:14–18; Ps 118:1–4, 10–12. In Ezek 23:40, the causal כי (preceded by אף) seems to be used to refresh the causal nature of the string of listed sins of Israel as the ground for the command to pronounce judgment on them earlier in verse 36.

[255] Gordon (1978:59–60) appears to be the first to observe what he called "Janus parallelism" in ancient Near East literatures.

[256] In my corpus, this only occurs in Ezekiel at 14:21; 16:59; 23:28, 46; 25:6; 26:7, 19; 29:13; 32:11; 34:11. Lev 25:24 has a *parasha setuma* followed by a conditional כי as part of casuistic law.

Table 8.2 Distribution of causal כי along the coordination-subordination continuum[257]

Syntactic (in)dependence	MCP1	MCP2	IP	Number	Percentage	Semantic distribution
Coordination	+	+	-	487	≈ 79%	Non-content 495
Modal subordination	-	+	-	8	≈ 1%	≈ 80%
Free subordination	-	-	-	8–117	≈ 1–19%	Content 122
Bound subordination	-	-	+	5–114	≈ 1–19%	≈20%
Total				617	100%	

Coordinate syntax for causal כי is by far the most frequent, while clauses with unambiguous modal subordination are very few.[258] All cases of coordination and modal subordination are found when causal כי functions in a more semantically subjective domain of use (i.e. non-content domains, cf. Claassen's 1983 speaker-oriented functions), with epistemic causal כי showing the most preference for modal subordination. In terms of free and bound subordination, as discussed above, counting cases has turned out to be more complex, since what often distinguishes between them in an ancient written corpus is a careful analysis of the flow of given and new information in order to determine the number of focal domains (i.e. one for bound subordination and two for free subordination). In light of this, I have determined the lower limit of each based on overt syntactic phenomena. Thus, there are at least 8 cases of free subordination and 5 of bound subordination. However, because free and bound subordinate syntax correspond to the 122 cases where causal כי is more semantically objective (i.e. content domain uses), this also provides an upper limit. Thus, there may be between 8 and 117 cases of free subordination and between 5 and 114 cases of bound subordination in my corpus, depending on how many focal domains one counts based on the complex flow of given, new, and reactivated information.

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[257] MCP1 = main clause phenomena type 1; MCP2 = main clause phenomena type 2; IP = integration phenomena; "+" = compatibility; "-" = incompatibility. Note that incompatibility with integration phenomena entails discursive independence and compatibility with integration phenomena entails discursive dependence. However, to avoid redundancy, this has been omitted.

[258] On a more granular view, cases of content volitional כי categorized as having free subordination may actually occupy a middle ground between modal subordination and free subordination in which the causal clause possesses its own modality. But rather than being speaker modality, it is character modality (Verstraete 2007:146–148). This would be yet another example of character subjectivity (recall the discussion in section 3.3) as either embedded perspective or a blend of perspectives (as represented in Figure 4.8 and seen to be an extension of causal כי in section 8.1.5). This may yield a more gradual cline from coordination to bound subordination.

While more research is needed on how the Masoretic accents may line up with the coordination-subordination continuum, the judicious use of punctuation in modern translations is needed to constrain the appropriate construal of the interclausal relation. Other than cases of bound subordination (which are integrated into a single main clause), the connective versatility of causal כי was also observed to be quite complex. In addition to being able to relate a causal clause to a main clause, causal כי may also relate larger segments of text or may relate to a previous, more remote portion of text separated from the כי clause by intervening material. Causal כי may also be in a series of parallel causal כי clauses, may itself contain embedded causal כי clauses, and may even relate to both a preceding and following clause simultaneously. This makes the delimitation of the scope of causal כי quite difficult at times.

In terms of distribution throughout my corpus and along semantic lines in terms of domains of use, several notable patterns emerge. The percentage of coordinate causal כי in each section of my corpus lines up very closely to the percentage of total causal כי in those sections. That is, Genesis contains about 26.6% of all causal כי clauses in my corpus and 22.4% of all coordinate causal כי. A similar pattern holds with the other books as well: Leviticus (12% and 13.6%, respectively), Ezekiel (10.7% and 12.1%, respectively), Psalms (16.5% and 16.5%, respectively), and Chronicles (34.1% and 35%, respectively). I take this as indirect support for my analysis. Unfortunately, the percentages of unambiguous cases of the other syntactic categories are likely too low to be generalizable. There is also a clear correlation between the semantic subjectivity of the causal relation being communicated and its syntactic (in)dependence, dividing more syntactically independent non-content uses from more syntactically dependent content uses.[259] Thus, the above syntactic and semantic analyses are mutually supportive.
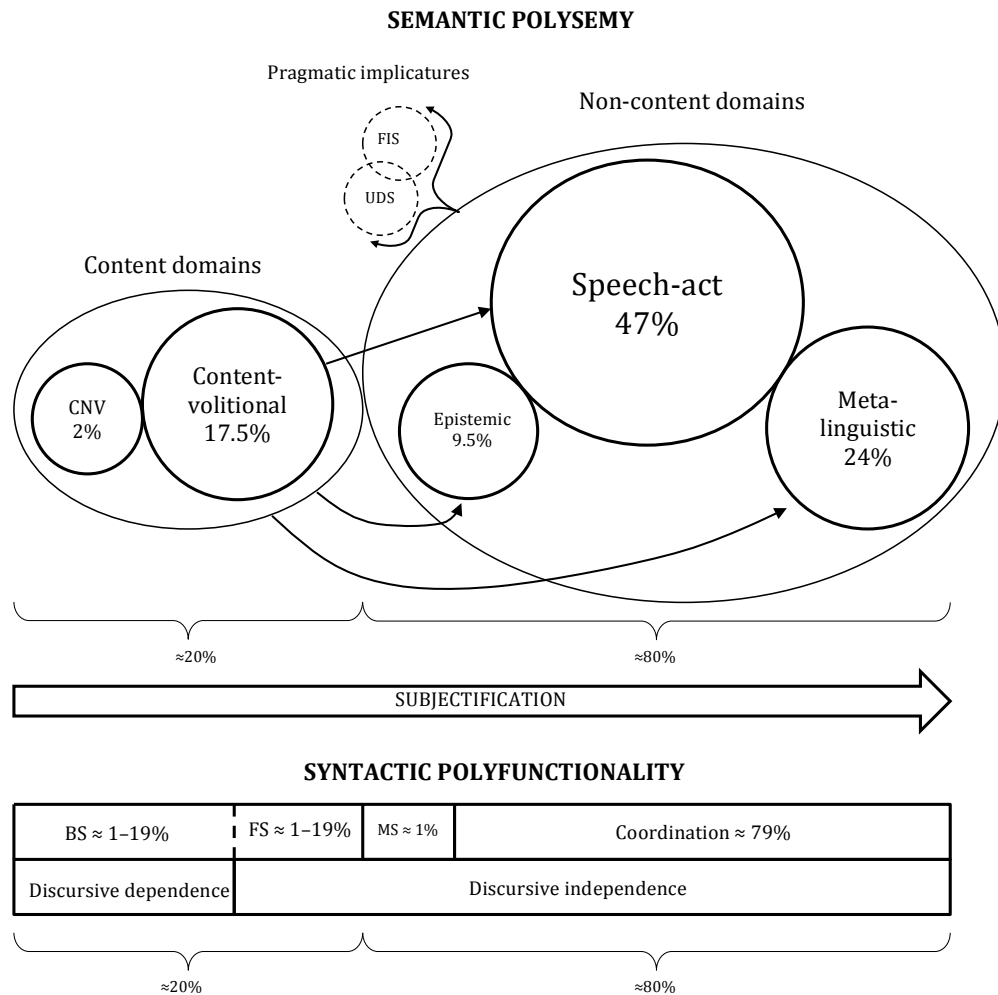
8.3   Chapter summary

This chapter has set out to delineate the semantic and syntactic categories of causal כי and to explain their principled connection as described in chapter 5 and arranged along the path of subjectification in section 6.2. While each of these semantic and syntactic categories display prototypicality effects and a finely-grained interface approaching other categories, this approach

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[259] Nevertheless, as argued throughout this study, the borders between these distinctions continually prove to be fuzzy and scalar when viewed from a more fine-grained perspective.

offers a principled categorization of uses. An attempt at capturing the organization of the polysemy and syntactic polyfunctionality of causal כי is presented below in Figure 8.1. The top half presents its semantic polysemy and the bottom half presents its syntactic polyfunctionality as it correlates with those causal categories.

Figure 8.1 The semantic and syntactic profile of causal כי[260]

SEMANTIC POLYSEMY

Pragmatic implicatures

Non-content domains

FIS

UDS

Content domains

Speech-act
47%

CNV
2%

Content-
volitional
17.5%

Epistemic
9.5%

Meta-
linguistic
24%

≈20%   ≈80%

SUBJECTIFICATION

SYNTACTIC POLYFUNCTIONALITY

BS ≈ 1–19%	FS ≈ 1–19%	MS ≈ 1%	Coordination ≈ 79%
Discursive dependence	Discursive independence		

≈20%   ≈80%

In terms of its semantic polysemy, speech-act causal כי was the most frequent use of causal כי amounting to approximately 47% of all uses. The epistemic use was much less frequent, but still witnessed many clear cases, amounting to about 9.5% of causal כי. The metalinguistic

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[260] BS = bound subordination; CNV = content nonvolitional; FIS = free indirect speech; FS = free subordination; MS = modal subordination UDS = unframed direct speech.

228

use accounted for approximately 24% of causal כי. Content volitional uses of כי are well attested, amounting to around 17.5% of causal כי. This is not unexpected for this bridging category at the boundary between the more subjective non-content uses and the more objective content nonvolitional uses. Finally, the most poorly attested use was the content nonvolitional use of causal כי, amounting to only about 2% of uses. As described in section 8.1.6, these uses were distributed throughout my corpus in principled ways. In light of the view of prototypicality presented in section 6.1.4 and my approach to quantifying it described in section 7.2, the percentages for each domain of use in Figure 8.1 are taken as the relative prototypicality within the polysemous network of causal relations communicated by כי.[261] At a more coarse-grained level, we may also observe the most basic distinction between content uses (about 20%) and noncontent uses (about 80%), which reveals the prototypicality of noncontent uses.

The pragmatic extension of causal כי in free indirect speech was also discussed. Here, the prototypical subjectivity of causal כי may be leveraged in objective contexts in order to adopt the perspective of some third person narrative character. Furthermore, a gradation of speech representation approaching the pragmatic nuances of free indirect speech was observed. Namely, cases of belated quotatives and the absence of quotatives in free (or unframed) direct speech. Each of these uses were seen as contextually dependent and inferentially enriched interpretations that had not gained sufficient semanticization.

Several seams were also revealed between the various domains of use which indicate the possible paths of development in the process of subjectification that כי may have traversed in its journey from a more objective to a more subjective causal connective. These are represented by both directional arrows from one domain (or group of domains) to another, as well as by the close boundaries between domains which is meant to represent their gradient interfaces. The most significant of these seams, both in terms of number and in terms of the process of subjectification, is between the content and non-content uses (with the moderately subjective content volitional use as a common bridge between the two).

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[261] While certain constructions were observed to have a greater attraction to certain domains of use (e.g. כי אמר being often associated with content-volitional uses), each domain of use was considered more or less unrestricted and not requiring a special context. An exception to this may be content-nonvolitional causal כי, which only appeared in narrative texts in my corpus, and could therefore be considered relatively restricted. However, this may simply be an inherent characteristic of content nonvolitional causal relations, rather than a sign of additional contextual restriction.

In light of the above discussion, the observation in BDB (473) has proven true: "the causal relation expressed by כִּי is sometimes subtle, especially in poetry, and not apparent without careful study of a passage." Perhaps much of the resistance to causal interpretations of various tokens of כי, and the over–appeal to "asseverative" or "emphatic" uses, may be alleviated by a greater appreciation for the complex array of elements within language to which a causal clause may relate, as well as a greater precision when it comes to describing and providing linguistic justification for more abstract causal relations. It is hoped that the present study has offered a greater precision and organization of such causal relationships and provided an explanation of how they hold together.

Overall, causal כי appears to be the prototypical subjective causal connective, even paradigmatically in comparison with the larger repertoire of causal connectives. Bliboim (2013:411) notes regarding the semantic-functional polysemy of כי in Biblical and Modern Hebrew that, "It is mainly כי *ki* which serves to express other meanings, beyond the usual level of content."[262] Thus, while a quantitative paradigmatic analysis of other causal connectives in comparison with כי is needed, it appears that semantic subjectivity, with its corollary of greater syntactic independence, is not only the prototypical use of causal כי, but also that כי is the prototypical expression of such syntactic and semantic relations in Hebrew.

In terms of the syntactic status of causal כי along the coordination-subordination continuum, my analysis has fit well with the theoretical perspective presented in chapter 5 which argued for a principled correlation between the semantics and syntax of adverbial connectives. Increasing subjectivity semantically generally corresponds to an increasing independence syntactically. Bound and free subordination are confined to the content domains. However, exact counts depend on how one parses the complex information structure of the clause complex and larger context. The potential ambiguity of where one should draw the line between bound or free subordination is indicated by the dashed line separating them in Figure 8.1, which corresponds to the boundary between discursively dependent and independent כי clauses. Modal subordination appears to have the greatest attraction to epistemic causal כי. Coordination is most often realized with speech-act and metalinguistic uses of causal כי.

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[262] Cf. Glinert's (1989:351) observation of כי's ability in Modern Hebrew to express "the 'reason why one is saying something' ('illocutionary' reason) as well as the actual cause for a situation" (i.e. non-content vs. content uses).

230

The structuring of Figure 8.1 is not meant to suggest that an element in the semantic portion correlates exactly and exclusively with the corresponding element in the syntactic portion. For example, even though the speech-act use only appears over the coordinate spectrum of the syntactic continuum, this is not meant to suggest there are no cases of modal subordination with speech-act causal כי (e.g. Gen 3:14, 17). Rather, the semantic categories are arranged relative to the other semantic values along the path of subjectification. The syntactic categories are also arranged in that way. Nevertheless, when arranging each group along the path of subjectification, the resulting correlation in the figure between semantic and syntactic categories turns out to line up very well, especially along the major division between content and non-content uses.

Crucially, it should be emphasized that this figure represents the synchronic profile of causal כי in the Hebrew Bible (insofar as my corpus can be considered a synchronic snapshot). As described throughout chapter 6, these synchronic profiles contain traces of a form's diachronic past and future. Thus, Figure 8.1 presents the synchronic semantic potential of causal כי found in my corpus, arranged quantitatively according to prototypicality and qualitatively according to subjectification. All throughout my corpus, non-content uses are clearly prototypical. However, there does appear to be an increase in subjective uses in those sections of my corpus that are relatively later (e.g. Genesis vs. Chronicles).[263] Research focused on the diachronic development of כי throughout the various stages of Hebrew would be required to trace the details of such a path of subjectification.[264] In the following chapter, I will round out this study of כי in the Hebrew Bible by incorporating its non-causal uses into its overarching profile.

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[263] From the distributions in Table 8.1 above, we can see that about 67% of causal כי clauses in Genesis are non-content uses, but about 81% of causal כי clauses in Chronicles are non-content uses. Both profiles are prototypically subjective, but the subjectivity of causal כי in Chronicles appears to be even more entrenched.

[264] Comparison with later corpora would shed further light on the trajectory of causal כי. Keddari's (1997) brief study of כי in Ben Sira is notable in this regard. He observes that the vast majority of uses are causal, and that of these the greatest number are employed "as links in the arguments expressed by admonitory speech-acts" (ibid:87).

9   The grammaticalization and polysemy of כי: A dynamic definition

> *[t]he radial category provides powerful explanations for all kinds of linguistic relationships involving polysemy, for it allows the linguist to explore both the variety and the coherence of related items, rather than attending exclusively to either the variety by making atomistic lists, or to the coherence by assigning abstract features that fail to capture the variety. The linguist can see both the trees and the forest, since even the messiest array of related items can usually be viewed as a unified (though internally complex) category.* Janda (2015:137)

In this chapter, I will discuss the relationship between the diverse uses of כי that connect them into a coherent and principled polyfunctional profile. Aejmelaeus (1986:193) observed that, "כי has seldom received systematic discussion of all of its functions." Even less attention has been given to proposing an overarching explanation for the relationship between all its functions, how it has developed such a polysemous semantic and functional potential, and how it is synchronically organized. My goal here is not to offer a comprehensive analysis of each of the non-causal uses of כי.[265] Rather, my goal is to propose how the various uses of כי coherently hold together without simply proposing a new taxonomy of uses on the one hand, nor flattening them out under a homogenous label of "pragmatics" on the other. Building on the foundation laid in chapter 6, here I will propose such an explanation in the form of a radial network of uses, organized qualitatively according to grammaticalization paths and quantitatively according to prototypicality.[266] That is, rather than simply relying on researcher intuition, crosslinguistic grammaticalization paths will provide independent evidence to establish and distinguish the most typologically plausible uses a form like כי may have in its functional potential, as well as which uses are diachronically earlier or later relative to each other. Then these uses will be further organized according their prototypicality within כי's synchronic usage profile as indicated by relative frequency.

It is important to note that, apart from extensive diachronic corpora in which particular uses of a form are completely absent at one stage and can be directly observed to emerge in particular contexts, any proposal of the directional relationship between uses in a polysemous/polyfunctional set rests on the strength of the crosslinguistically observed tendency

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[265] Such treatments are offered in the various works surveyed in chapter 2.

[266] This chapter will refer repeatedly especially to the studies by Bandstra (1982) and Follingstad (2001), since they also take a quantitative, corpus-based approach and report extensively on various frequencies of usage.

for such developments. Of course, as seen in chapter 6, such crosslinguistic evidence may be extremely strong. Nevertheless, the complex textual history of the Hebrew Bible, its relatively limited size, and the absence of absolutely dated consecutive stages in which each use gradually emerges, means that the relationship between each use of כי is not observed directly, but must be derived by comparing its synchronic usage profile with crosslinguistically pervasive grammaticalization paths in order to find the most likely match. Thus, it is crucial to keep in mind that the examples I present below are not to be taken as actual contexts in which one sense first developed into another, but merely the remnant of such contexts still visible after the new senses have already emerged (corresponding to stages 3 or 4 in Figure 6.1 discussed in section 6.1.4 above). Of course, the grammaticalization paths I propose here are subject to revision in light of more data (e.g. broader corpus material, comparative study, additional typological research) and may be added to, revised, or replaced with better hypotheses. The stronger claim being argued here is that the definition of כי or indeed any polysemous and/or polyfunctional word must take the form of a radial network with each use ordered in terms of grammaticalization and weighted according to degree of prototypicality.

Additionally, in the case of completely extinct uses (e.g. as a modal preposition, which I will argue is the original source of כי), the contexts in which its semantic extensions originated are no longer observable, (hence the reliance on crosslinguistically pervasive and cognitively motivated grammaticalization paths). While such a method has proven to be explanatorily powerful in linguistic analysis, the relationships I propose here between the uses of כי should be considered with this in mind.

In what follows, I will first discuss each use of כי according to the groupings established in section 6.3, both the major category continua and the major categories of adverbial relations, especially temporal and CCC (causal, conditional, concessive, etc.) relations. Continuing to rely on the approach to token analysis presented in section 7.2 and 7.3, pragmatic uses of כי have been distinguished from semanticized uses according to the principle of semantic uniqueness.[267] Semanticized uses have been distinguished from each other based on the presence of different

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[267] Putative uses that I do not accept will be discussed along with what I argue is its more correctly understood use. For example, I will address the purported emphatic or asseverative use of כי in oath formulas along with my discussion of כי as a complementizer, which I take to be the preferred analysis of those cases. Several collocations sometimes presented as pleonastic with causal כי (e.g. יאן כי, על כי) will also be included in my discussion of complementizer כי, since I take these uses to be best analyzed as such. However, the collocation והיה/ויהי כי is treated in section 9.1.1 as a case of temporal כי.

syntactic constraints. Finally, semanticized uses have been further distinguished in terms of their prototypicality in the overall profile of כי based on entrenchment as indicated by relative frequency. As with the profile of causal כי just presented above, the synchronic semantic potential of כי's other uses has diachronic implications. Building on the synchronic profile laid out in the following sections, I will propose the extinct function from which the oldest extant adverbial usage (i.e. temporal) may have arisen, namely, a comparative preposition related to כְּ. This will also suggest a probable source for the parallel development of complementizer כי. All of this will be synthesized into a visualization of כי's full usage profile at the end of the chapter.

9.1 Adverbial uses of כי

Beginning with uses of כי as an adverbial connective, we encounter the senses of כי that make up the largest portion of its functional profile.[268] These include uses as an adversative, causal, concessive, conditional, consecutive, exceptive, and temporal adverbial connective. In this section, I will discuss each of these in turn, noting major syntactic characteristics of each and suggesting the most probable relations to the other uses in the overall profile of כי. Following the typological pattern presented in section 6.3, especially Figures 6.4 and 6.5, I will begin with the temporal use of כי as the prototypical source for CCC relations. Thus, it will be useful to refer back to Figure 6.5 in considering the following discussion. I will also discuss the developments likely to have occurred internally within the CCC semantic space. Special focus will be given to temporal and causal uses of כי as the most prolific sources for the meaning extensions that have produced כי's extreme polysemy.

9.1.1 Temporal relations

The temporal use of כי is a semanticized use in my corpus beyond mere pragmatic implicature. This is clear from the cases that fulfill the criteria of semantic uniqueness.[269] Such cases where the temporal use is the only one present show that it is not merely a pragmatically enriched interpretation of some other sense also present in the text. Of all uses of כי, temporal

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[268] The uses of כי as an adversative, causal, concessive, conditional, purpose/result (or so-called consecutive), exceptive, and temporal adverbial connective account for 827 of the 1,058 tokens in my corpus (≈78%). Cf. Follingstad (2001:411) who reports that 63% of all cases of כי in his corpus are adverbial.

[269] See for example Lev 14:34; 15:13, 16, 19; 19:5, 23; 23:10; 22:27. Outside my corpus, see Num 33:51; 35:10; Deut 18:9. In these and other cases, it seems very difficult to argue that the temporal meaning is merely an inferentially enriched interpretation of another simultaneously present sense. As observed by Schoors (1981:267), "there are an impressive number of instances where *kî* clearly has a temporal meaning."

uses make up about 4.5% (49 cases).[270] The primary syntactic constraints by which the temporal use is distinguished from others is its clear preference for position before its main clause and the use of the *yiqtol* verb form as the main verb of the כי clause. Specifically, of the 38 cases of temporal כי throughout my corpus, 24 (about 63%) of temporal כי clauses in my corpus appear before the main clause and 14 (about 37%) appear after.[271] Around 85% of temporal כי clauses employ a *yiqtol* verbal form and 15% a *qatal*.[272] There is a great deal of formal similarity between temporal, conditional, and concessive uses of כי as a result of their conceptual relationship (cf. Bandstra 1982:121; Aejmelaeus 1993:171–172). However, Bandstra (1982:121) goes on to note that there are several finer features that may serve to distinguish between these senses. For instance, he notes that a כי clause prefixed with a conjunction is usually conditional (ibid:128). Conditionals are also much more restricted to casuistic law (ibid:126). For example, I have identified 48 conditional uses of כי in Leviticus as opposed to 19 cases of temporal. In terms of concessive כי, Bandstra (1982:130) notes that these are expendable (i.e. the main clause can grammatically stand alone without them), while conditional כי is required for the apodosis to make sense. Furthermore, because concession is essentially negated causation (recall section 6.3.3.3), constructions with concessive כי have a strong preference for some sort of negation or contrast in the clause complex (cf. Bandstra 1982:131–132).

It is the conceptual similarity between these senses that results in expected cases of ambiguity between uses. Once again, these cases of ambiguity cannot be pressed to argue that these are not distinct semanticized uses of כי, anymore than the cases of ambiguity between "when," "if," and "although" in English can be used to argue they are essentially the same apart from context, or that there are not clearly semanticized causal and temporal uses of *since* (recall the discussion of example (78) in section 7.2 above). Rather, as argued throughout chapter 6, these cases of ambiguity serve to further highlight conceptual similarity between uses and point to the seams of developing polysemy through conventionalization.

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[270] Cf. Follingstad's (2001:411) reported 5% from a similar sized corpus. The cases in my corpus occur at the following references: **Gen** 4:12; 6:1; 12:12; 24:41; 26:8; 27:1; 30:33; 31:49; 32:18; 43:21; 44:24; 46:33; **Lev** 1:2; 2:1, 4; 4:2; 5:5, 23; **Ezek** 14:23(1); 21:12(1); 25:3(1-3); 46:12; **Ps** 2:12; 8:4; 13:5; 32:3; **1 Chron** 7:21; 14:34; 15:2, 13, 16, 19; 17:11; 19:5, 23, 33; 22:21, 27, 29; 23:10; 25:2; **2 Chron** 6:24, 26(1-2), 27, 36(1); 10:16.

[271] This is excluding cases where כי is used after עד (always following the main clause), since I treat them as likely developing from an originally complementizer use of כי in section 9.2.1.2 below.

[272] Four of the cases where temporal כי governs a *yiqtol* clause also contain a coordinate clause with *weqatal* (Lev 14:34; 19:23; 23:10; and 25:2). Outside my corpus, Bandstra (1982:123) reports four uses of a participial predicate in the temporal כי clause in the subject+predicate order: Num 33:51; 34:2; 35:10; Deut 18:9.

Building on the polysemy patterns arising from the grammaticalization tendencies of temporal connectives discussed in section 6.3.3.2, it was observed that, "across the board, the temporal readings of adverbial subordinators are either always the source of semantic changes (relative to the CCC relations) or their goal (judging from the perspective of locative and modal relations)" (Kortmann 1997:188). This already gives us an indication of the potential sources and developments of temporal כי clauses. Specifically, temporal כי likely developed from a modal adverbial connective meaning something like "as, in this way," which in turn developed from an original comparative preposition "like, as" (see section 9.3 below). While temporal כי represents a relatively small portion of the cases in my corpus, its significance as the source of semantic extensions into the semantic space of logical adverbial uses (i.e. the CCC domain) calls for its careful consideration. The uses into which temporal כי may develop depends on the portion it occupies on the spectrum of temporal relations represented in Figure 6.5. In my corpus, I have identified temporal uses of כי falling along the spectrum of temporal subsenses spanning anteriority "after" (example 114), immediate anteriority "as soon as" (example 115), simultaneous overlap "when" (example 116), contingency (indefinite time) "whenever" (example 117), simultaneous duration "while" (example 118), and simultaneous coextensiveness "as long as" (example 119).

I also include in the category of temporal כי those cases occurring immediately after והיה/ויהי. It has been suggested by some that this collocation is more properly a use of complementizer כי, the sense being "And it was/will be *that*…"[273] I agree with Bandstra (1982:124–125) in seeking an alternative, but for different reasons. Bandstra rejects this because he says it implies that temporal כי developed from complementizer כי.[274] Although hypothetically, it could be the case that temporal כי developed in parallel with complementizer כי, and that complementizer כי with והיה/ויהי later developed into this temporal collocation. This seems just as plausible as Bandstra's (1982:125) suggestion that והיה/ויהי כי was an analogical development from infinitive + כְּ + והיה/ויהי. However, on the grounds of simplicity, it seems preferable to analyze this construction as temporal כי plus והיה/ויהי. This also makes sense in light of the narrative function Bandstra (1982:124–125) proposes for this collocation. That is, it is

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[273] See, e.g. Meyer (1992:§113.1.b, also cited by Bandstra 1982:125).
[274] This would conflict with the use of temporal *k* in Ugaritic without the copula. It would also conflict with the typological evidence presented in section 6.3 on the most common sources for temporal adverbials, and the reconstructed diachronic history of כי proposed in section 9.3 below.

236

used to maintain sequential continuity, as apposed to temporal כי without והיה/ויהי, which disrupts continuity (cf. Westbury & Andrason 2016).[275] Furthermore, such specialization may be put forth as evidence for the relative unitization of this collocation.

(114)   Lev 14:34–35a (anteriority)

כִּ֤י תָבֹ֙אוּ֙ אֶל־אֶ֣רֶץ כְּנַ֔עַן אֲשֶׁ֥ר אֲנִ֛י נֹתֵ֥ן לָכֶ֖ם לַאֲחֻזָּ֑ה וְנָתַתִּי֙ נֶ֣גַע צָרַ֔עַת בְּבֵ֖ית אֶ֥רֶץ אֲחֻזַּתְכֶֽם׃ ³⁵וּבָא֙ אֲשֶׁר־ל֣וֹ הַבַּ֔יִת וְהִגִּ֥יד לַכֹּהֵ֖ן

When [i.e. after] you enter into the land of Canaan that I am giving to you as property and [as soon as] I place a leprous disease in a house of the land of your possession,
³⁵ then the one who owns the house shall go and make it known to the priest…

(115)   Lev 15:13 (immediate anteriority)

וְכִֽי־יִטְהַ֤ר הַזָּב֙ מִזּוֹב֔וֹ וְסָ֥פַר ל֛וֹ שִׁבְעַ֥ת יָמִ֛ים לְטָהֳרָת֖וֹ וְכִבֶּ֣ס בְּגָדָ֑יו וְרָחַ֧ץ בְּשָׂר֛וֹ בְּמַ֥יִם חַיִּ֖ים aוְטָהֵֽר׃

And when [i.e. as soon as] the one with a discharge recovers[276] from his discharge, then he shall count for himself seven days for his cleansing and wash his clothes and bath his flesh in flowing water and he will be clean.

(116)   2 Chron 10:16 (simultaneous overlap)

וְכָל־יִשְׂרָאֵ֗ל כִּ֠י לֹא־שָׁמַ֣ע הַמֶּלֶךְ֮ לָהֶם֒ וַיָּשִׁ֣יבוּ הָעָ֣ם אֶת־הַמֶּ֣לֶךְ׀ לֵאמֹ֗ר מַה־לָּ֨נוּ חֵ֜לֶק בְּדָוִ֗יד וְלֹֽא־נַחֲלָה֙ בְּבֶן־יִשַׁ֔י אִ֤ישׁ לְאֹהָלֶ֙יךָ֙ cיִשְׂרָאֵ֔ל עַתָּ֕ה רְאֵ֥ה בֵיתְךָ֖ דָּוִ֑יד וַיֵּ֥לֶךְ כָּל־יִשְׂרָאֵ֖ל לְאֹהָלָֽיו׃

And all Israel,[277] when the king did not listen to them, the people replied to the king saying, "What share do we have in David?" and "We do not have an inheritance in the son of Jesse. Each man to his tent, O Israel. Now see to your own house, David." Then all Israel went to their tents.

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[275] There, Bandstra discusses the contrast between temporal כי without והיה/ויהי in Gen 32:18 as apposed to Gen 44:24 where והיה/ויהי כי is used. However, this is also used in texts that are not prototypically narrative (e.g. Lev 5:5, 23; Ezek 21:12(1)), even if narrative-like.

[276] Lit. "is cleansed." For the rendering "recovered" indicating the end of the emission, see Hartley (1998:210).

[277] I take the phrase וְכָל־יִשְׂרָאֵל a case of left dislocation (cf. Runge & Westbury 2012–2014). Therefore, the temporal כי clause should be taken as being in clause initial position.

(117)   2 Chron 6:36 (1) (contingency)

כִּי יֶחֶטְאוּ־לָךְ כִּי אֵין אָדָם אֲשֶׁר לֹא־יֶחֱטָא
וְאָנַפְתָּ בָם וּנְתַתָּם לִפְנֵי אוֹיֵב וְשָׁבוּם
שׁוֹבֵיהֶם אֶל־אֶרֶץ רְחוֹקָה אוֹ קְרוֹבָה

When [i.e. whenever] they sin against you (for there is no one who does not sin) and you are angry with them and give them up before an enemy, and they take the captive to a land far or near…

(118)   Ezek 25:3b (1–3) (simultaneous duration)

כֹּה־אָמַר אֲדֹנָי יְהוִֹה יַעַן אָמְרֵךְ הֶאָח אֶל־
מִקְדָּשִׁי כִי־נִחָל וְאֶל־אַדְמַת יִשְׂרָאֵל כִּי
נָשַׁמָּה וְאֶל־בֵּית יְהוּדָה כִּי הָלְכוּ בַּגּוֹלָה:

Thus says the Lord Yahweh, "Since you said, 'Aha!'" concerning my sanctuary when it was profaned and concerning the land of Israel when it was made desolate and concerning the house of Judah when they went into exile, [therefore…]

(119)   Ps 32:3 (simultaneous coextensiveness)

כִּי־הֶחֱרַשְׁתִּי בָּלוּ עֲצָמָי בְּשַׁאֲגָתִי כָּל־
הַיּוֹם:

When [i.e. as long as] I kept silent, my bones wasted away in my groaning all day.

Beginning with the sense of anteriority, there are a couple of cases where כי is found in a context that seems to be somewhere between anteriority "after" and immediate anteriority "as soon as."[278] In these cases, the schematic relationship is "after *p*, *q*" where "*p* simply precedes *q* in time" (Kortmann 1997:84). Consider, for example, Lev 14:34–35a in example (114). It is the mention of entering the land of Canaan along with the following more specific circumstance that pushes this toward an anterior interpretation. In this case, entering the land is simply an anterior event after which the more specific circumstance of the leprous disease being found in a house occurs. Thus, entering Canaan appears to have a relationship of simple anteriority to the main

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[278] See Lev 14:34; 25:2; Deut 18:9. Something similar seems to obtain in Lev 19:23 and 23:10, but in these cases the second part of the complex temporal clause appears to communicate the temporal sense of contingency in indefinite time. There is one case where ויהי כי appears to communicate anteriority (Gen 26:8). The clearly anterior sense of temporal כי appears to be receding. The fact that the older Akkadian *kî* can communicate clear anteriority provides additional evidence of this as well. See CAD (316–317) for references.

clause while the appearance of a leprous disease has a relationship of immediate anteriority to the main clause.

Immediate anteriority > causal: There are also several cases in my corpus where כי communicates the temporal idea of immediate anteriority "as soon as."[279] These cases assert the proposition "as soon as *p*, *q*" where "*p* immediately precedes *q*" (Kortmann 1997:84). This can be seen in Lev 15:13 in example (115). There, the precise counting of days for cleansing highlights the immediate anteriority expressed by the temporal כי clause. That is, the counting of seven days must start as soon as the discharge ends. Recalling Figure 6.5, the concept of immediate anteriority has the tendency to invite causal implicatures leading to grammaticalization into a causal connective. As pointed out in section 6.3.3.2, this is due to inferential process of the *post hoc ergo propter hoc* ("after this, therefore because of this") fallacy, which has been widely observed as the mechanism for deriving causal meanings from a variety of temporal relations. Schoors (1981:267) has already pointed out this very inferential process as the link between causal and temporal uses, but suggested the opposite directionality: from causal to temporal. Adopting a thoroughly crosslinguistic approach confirms Schoors' keen pre-theoretical intuition about the relationship between these uses, but further research into the pragmatic processes responsible for such developments also clearly reveals that the conceptual and diachronic directionality is from temporal to causal.

Simultaneous overlap > causal: Temporal כי is also found expressing simultaneous overlap "when."[280] These cases assert the proposition "when *p*, *q*" where "*p* overlaps with *q*" (Kortmann 1997:84). An especially illustrative case of this temporal subsense for the development of causal semantic extensions can be seen in 2 Chron 10:16 in example (116). It has already been observed in section 6.3.3 that connectives expressing simultaneous overlap have a strong tendency to develop into causal connectives. In 2 Chron 10:16, position before the main clause fits a typical temporal reading, but the use of the *qatal*, atypical of temporal clauses, facilitates the invited implicature of causation.[281] In this case, it is easy to see the clear implicature inviting the reader to infer a causal relationship between the king's refusal to listen

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[279] Gen 24:41; 32:18; Lev 15:13; 19:23. With the והיה/ויהי כי collocation, see Gen 12:12; 43:21; 44:24; 46:33; Lev 5:5, 23; Ezek 21:12(1); 1 Chron 17:11.

[280] Cf. Gen 30:33; Ezek 14:23(1); Psalm 8:4; 13:5; 1 Chron 7:21; 2 Chron 6:24, 26(1–2), 27; 10:16. With ויהי כי, see Gen 6:1; 27:1.

[281] The LXX takes this כי as causal, but renders it so as to stand in relation to the previous clause, thus placing it after its main clause, as is typical of causal clauses.

and the Israelites' response. There is no reason to think that this source of the causal use would be in competition with immediate anteriority mentioned above as another source. Rather, the compatibility of temporal כי with both of these subsenses would only strengthen the likelihood of such a semantic extension and render temporal כי an especially likely source for the development of the causal use.

 Contingency > condition: Example (117) shows a case of the contingency subsense in indefinite time.[282] The idea being communicated here is "in cases when *p, q*" or "whenever *p, q*" (Kortmann 1997:85). In 2 Chron 6:36 (1), any interpretation of the first כי clause other than as a temporal is virtually excluded. This is highlighted by the following metalinguistic causal כי, the whole point of which is to support the certainty of the fact that Israel will indeed sin. In other words, it is not a matter of "if" they will sin, but "when." The precise temporal idea appears to be one of contingency. While the event of the exile may be primarily in view from the perspective of the Chronicler, this does not exclude the idea that the Chronicler (and Solomon, the speaker in this case) intends this to be taken to refer to any case when Israel's sin would incur God's judgment. This is clearly indicated by the phrase "רְחוֹקָה אוֹ קְרוֹבָה." As Dillard (1987:51) argues, "the reference to the exile does not exhaust the significance of this petition for the Chronicler… temporary captivity is reported for part of the population of Judah in nearby Samaria (28:6–15) and for Manasseh in distant Babylon (33:10–13)." Thus, Solomon does not simply have a specific situation in mind, but a general contingency. It is also easy to see how such uses are at a mid-point between simultaneous overlap ("when") and condition.[283] When the subsense of simultaneous overlap is moved into the realm of indefinite time (as with contingency) and put into a context where the likelihood of the event is uncertain, this yields a conditional reading. This close conceptual and diachronic relationship makes sense of why temporal and conditional uses of כי have such a large degree of overlap in their syntactic preference, as noted at the beginning of this section. Compare Aejmelaeus' (1993:171–172) discussion where she cites Deut 6:20–21 of a case of such overlap. This also makes sense of why such uses are found almost exclusively in casuistic texts.

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[282] Genesis 4:12; Lev 1:2; 2:1, 4; 4:2; 15:2, 16, 19; 19:5, 23; 22:21, 27, 29; 23:10; Ezek 46:12; 2 Chron 6:36 (1).
[283] Compare the observation in HALOT that temporal כי develops into conditional כי.

Simultaneous duration > adversative: Moving to the subsense of simultaneous duration, three cases of this use can be seen in Ezekiel 25:3, given in example (118) above.[284] This communicates the relationship "while/when *p*, *q*" where "*p* opens up a time interval for the whole or part(s) of which *q* is true." In example (118), the time interval in which enemies rejoice is opened when calamity befalls the temple, Israel, and Judah. Crosslinguistically, such uses may invite contrastive (i.e. "whereas") inferences (recall example (76) in section 6.3.3.4). However, the contexts in which these limited examples occur do not appear to clearly invite such inferences. Another possibility that commends itself both crosslinguistically and from my corpus data is the development of adversative כי from causal כי, discussed in section 9.1.2.1.

Simultaneous coextensiveness > condition: Finally, there are a couple cases of temporal כי communicating the subsense of simultaneous coextensiveness.[285] As seen from Ps 32:3 in example (119), the idea being communicated is that the psalmist's anguish was coextensive with his refusal to confess sin. As soon as confession is offered in verse 5, the psalmist finds relief (cf. Craigie & Tate 2004:266). Crosslinguistically, such uses have a tendency to invite conditional implicatures that may become conventionalized through entrenchment. It is not difficult to see how examples such as Ps 32:3 can be interpreted as conditional. Thus, temporal כי in such contexts may have served as the locus for the emergence of conditional כי.

This distribution of temporal subsenses receives corroboration from the fact that it corresponds to the crosslinguistically pervasive continuum of temporal relations identified by Kortmann (1997:175): "In other words, in the network of temporal relations we encounter a greater tendency towards conceptual fuzziness. This concerns four relations, in particular, viz. Simultaneity Overlap, Simultaneity Duration, Anteriority and Immediate Anteriority. Indeed, these four will be shown to form a continuum, with Simultaneity Co-Extensiveness as a marginal fifth member…"[286] Since discerning the precise subsense being communicated often depends on a special context, it does not seem possible to single any one out as prototypical of temporal כי

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[284] Cf. Lev 19:33; Ps 2:12 (if taken as temporal rather than causal, cf. LXX; KJV; NET). In the case of Lev 19:33, this seems to occupy a mid-point between simultaneous duration and simultaneous coextensiveness along the spectrum of temporal relations (as seen in Figure 6.5).

[285] From my corpus, see Gen 31:49 and Ps 32:3.

[286] The fact that these temporal uses of כי occupy contiguous uses along the spectrum supports Kortmann's (1997:186–187) conclusion that it forms an implicational hierarchy, such that any connective compatible with multiple uses along the continuum must also be compatible with uses falling between them on the continuum.

and enjoying a significant degree of entrenchment. This is reinforced by the conceptual fuzziness of these subsenses and the fact that temporal כי does not reveal a clear preference for one.[287]

Nevertheless, different portions of the spectrum of temporal relations have different affinities for development into other adverbial relations. In terms of its function as a source, the above discussion of temporal כי has revealed potential loci for the development of several uses in the CCC semantic space. Thus, the above examples illustrate the types of contexts where the concept of immediate anteriority (115) or simultaneous overlap (116) may develop into causation, where simultaneous overlap may develop into contingency (117) and then conditionality, where simultaneous duration (118) may develop into contrast/adversion, and where simultaneous coextensiveness (119) may develop into conditionality.

The inherent cognitive pull latent in such inferential processes is facilitated by contexts in which the syntax of a given use approaches the boundary of a conceptually similar use. For example, the latent pull on temporal כי communicating simultaneous overlap toward a causal implicature would be facilitated in contexts where temporal כי departs from some of its prototypical syntactic preferences, such as position before the main clause and the use of the *yiqtol* in the כי clause. When temporal כי occurs after the main clause or with another verbal form (e.g. the *qatal*), it is much easier for the causal implicature to take prominence in the conceptualization of the adverbial relation and become entrenched. Such appears to be the case in contexts such as that seen in 2 Chron 10:16 in example (116) above where the temporal כי retains its typical initial position, but uses a *qatal* instead of the typical *yiqtol*, in this case due to the past time reference of the action being described.[288] Thus, departure from position before the

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[287] I have counted 16 cases of the contingent sense: **Gen** 4:12; **Lev** 1:2; 2:1, 4; 4:2; 15:2, 16, 19; 19:5, 23; 22:21, 27, 29; 23:10; **Ezek** 46:12; **2 Chron** 6:36(1). Five cases of immediate anteriority (including those approaching the sense of simple anteriority): **Gen** 24:41; 32:18; **Lev** 14:34; 15:13; 25:2. Two cases of simultaneous coextensiveness: **Gen** 31:49; **Ps** 32:3. Five cases of simultaneous duration: **Lev** 19:33; **Ezek** 25:3(1–3); **Ps** 2:12. 10 cases of simultaneous overlap: **Gen** 30:33; **Ezek** 14:23 (1); **Ps** 8:4; 13:5; **1 Chron** 7:21; **2 Chron** 6:24, 26(1–2), 27; 10:16. Contingency, the most frequent sense, appears to be more or less restricted to casuistic contexts (unsurprisingly, 13 of these are found in the casuistic law of Leviticus, and the one in Ezek 46:12 is also casuistic), which reduces its impact on relative frequency and therefore entrenchment discussed in section 7.3.

[288] Cf. Gen 24:41, which may possibly be taken as a context where the invited causal inference of a temporal כי expressing immediately anteriority is strengthened by its position after the main clause (cf. KJV, NASB, ESV, Vulg). However, see Bandstra (1982:122, 293) where he interprets this as the conditional protasis related to the following clause, not the preceding clause, which is also possible. In fact, on comparison with texts like Ex 22:6 and 22, this may be the preferred reading. Nevertheless, rather than undermining my essential thesis, alternative interpretations further highlight the conceptual similarity between these senses and therefore strengthen the position that these indeed represent the conceptual seams where semantic extensions occur. This is illustrated with the LXX of Gen 24:41, which translates the כי as both temporal and causal (ἡνίκα γὰρ ἐὰν...). Cf. the NIV, which translates it

242

main clause and the use of a *yiqtol* verbal form, especially in contexts where inferring a logical CCC relation would render a more relevant interpretation, would facilitate the conceptual pressure toward semantic extension, which I now discuss in the following section.

9.1.2   CCC relations

This section covers the various uses of כי that fall within the CCC semantic domain of adverbial relations.[289] These include causal, conditional, concessive, contrastive/adversative, exceptive/restrictive, negative conditional, purpose/result, and conditional apodosis marker. As with the temporal uses treated above, I will discuss each use, giving special attention to its most typologically plausible source (either temporal or some use internal to the CCC network) and goal (if any). The following discussion relies heavily upon the inferential processes involved in such grammaticalization paths as described in section 6.3.3.3 above.

9.1.2.1   Causal

Because causal כי is the most frequent (617 of 1,058 tokens or ≈58% of all uses) and least contextually and syntactically restricted use, it has already received an extensive treatment in the previous chapter as the most prototypical use of כי. I will only recall the following summary points. The above analysis clearly shows that it fulfills the test of semantic uniqueness for identifying semanticized uses, as is clear from the numerous examples discussed that can only reasonably be interpreted as causal. While it certainly has syntactic preferences (e.g. especially occurrence after its main clause) that help distinguish it from other semanticized uses, it appears to be the most contextually free of the various uses of כי, imparting a greater degree of salience to its frequency of usage, resulting in greater entrenchment. This contextual diversity of its bare frequency strongly supports its designation as the most prominent sense within the usage profile of כי in the Hebrew Bible.[290] In the following, I will now focus on the relationship of causal כי to the other uses in terms of source and goal relationships in its diachronic development and

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as both temporal and conditional ("if, when…"). Furthermore, Bandstra (1982:123) does affirm that there are indeed cases where temporal כי follows the main clause.

[289] Hebraists have intuitively noted the close relationship between CCC uses of כי. For example, Thorion (1984:3–5) observes that causal, conditional, concessive, and result uses of כי have a close underlying conceptual relationship (cf. Benigni 199:128–129). These observations based on an intuitive command of Hebrew (and several other languages) are largely confirmed by crosslinguistic data that shows the diachronic and synchronic connections between CCC relations and reveals its cognitive salience as an identifiable category of interclausal relationships, as discussed in section 6.3 above.

[290] See the various sections in chapter 8 for references.

synchronic polysemy. Certain subsenses of temporal כי (especially immediate anteriority and simultaneous overlap) have already been discussed above in section 9.1.1 as the most probable source of the causal use, especially through inferential processes exploiting the *post hoc* fallacy.

      Relativizer, complementizer, conditional > causal: There are also some other typologically plausible proposals for the source of causal כי. As noted regarding the source of causal כי from both the immediate anteriority and simultaneous overlap subsenses of temporal כי, there may be additional mutually reinforcing sources of causal כי beyond temporal כי. Specifically, relativizers, complementizers, and conditionals are also possible sources of causal connectives (recall the developments of complementizers and relativizers into adverbial connectives in Figure 6.3). Gesenius & Tregelles (1846:390–391) present the relative function first among the list of uses and call it "primitive" (cf. Benigni 1999:128; Givón 1991:305).[291] Miller (2003:205) notes that complementizers may develop into causal connectives.[292] There are indeed cases where the complementizer use appears to blur with the causal. Specifically, use of complementizer כי with certain verbs of perception (or their or nominal counterparts) may have been a context in which they were reinterpreted as a causal clause when the thing being perceive is also the cause of perception.[293] As discussed in example (73) above in section 6.3.3.3, in contexts in which a condition is known or assumed to be true, conditionals may be reinterpreted as causals.[294]

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[291] Gesenius & Tregelles (1846:390–391) list Gen 3:19 (cf. 3:23); 4:25; Isa 54:6; 57:20 as cases of relativizer כי. They also list as uncertain cases, Deut 14:29 and Ps 90:4. These may conceivably be taken as the types of contexts where relativizer כי was reanalyzed as causal כי (cf. the discussion of Gen 3:19 in section 9.3.2 below). Compare Givón's (1974:13–14) proposal that relative –שׁ developed purpose and causal uses. See Pat-El (2008:58) on this path in Semitic generally.

[292] Aejmelaeus (1993:17) notes the development of causal ὅτι from "that."

[293] For example, in 2 Chron 20:27, the thing for which Israel is rejoicing can also be construed as the cause of their rejoicing. In Gen 45:5(1), the כי clause may be the complement expressing the content of the distressing thoughts of Joseph's brothers, or it may be the cause of them (cf. 1 Chron 13:11; 14:2(2)). Also see Ps 136:1 where the כי clause can be understood as the content of the praise "that he is good" (cf. כי טוב in Gen 1) or the cause of the praise, "because he is good." Compare the similar situation in Ps 22:25, 32 where the כי clause can be either the content or the motivation of the verb of speech. Ps 25:19 contains the same ambiguity, but with a verb of seeing. See Aejmelaeus (1993:19) for a discussion of this in Gen 6:6 and Ex 4:31. Also see Givón (1991:296).

[294] A possible example of such a context can be found in Lev 22:9 where the content of the כי clause is envisioned as true in the main clause. The casuistic context and the use of the *yiqtol* in the כי clause contribute to a conditional reading (and/or temporal), but position following the main clause and its being envisioned as true (for the sake of argument) facilitate a causal interpretation. These appear to be the reasons for the diverse translations of the כי in this verse as conditional (Geneva, KJV, JPS1917) or causal (GNB, CEB, NET, HCSB, NIV, NASB, cf. JPS1985). Several translations also render it as a temporal relation (Vulg, ESV), which is of course closely related to both causal and conditional, as seen in section 9.1.1 above. The LXX skillfully renders כי here with ἐὰν, which itself may be ambiguous between temporal and conditional interpretations.

Nevertheless, temporal כי appears to offer a more likely candidate as the source of causal כי, as illustrated from the above examples in section 9.1.1 above. This view is commended by the fact that this path is more strongly and directly linked crosslinguistically. There also appear to be many more contexts in which a temporal relation may be reanalyzed as causal. Furthermore, these first two observations stem from the fact that temporal and causal relations have an especially strong conceptual relationship in which the former naturally leads to the latter via inferential processes common to human cognition.[295] Furthermore, if complementizer כי is the source of its adverbial connective functions, this would orphan its temporal uses since they do not develop from complementizers.[296] However, rather than pitting these potential sources against one another, it may be preferable to see them all as a convergence of possible reinterpretive loci from which causal כי is able to emerge, with temporal כי being the most productive.[297] This fits the crosslinguistic data presented in Figure 6.3, which presents adverbial connectives as occupying the midpoint on the continuum between, and being the common developmental goal of, complementizers and relativizers (in addition to adpositions, which I discuss in section 9.3 below).

Causal > concessive: In terms of developmental goals of causal כי, I will begin with concessive כי. Recall from example (74) in section 6.3.3.3 that concession is essentially negated causation where a causal relationship is normally expected. Thus, concession appears to be a potential extension of causal כי in contexts where a causal clause expressing a generally held causal relationship is explicitly or implicitly negated.[298] Consider Ezek 3:9b.[299]

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[295] Recall Kortmann's (1997:192) implicational universal quoted above: "If a marker of Simultaneity Overlap develops an additional or exclusive use as a marker of some interclausal relation belonging to another semantic network, this relation is most likely to be Cause or Condition. In the latter case, there is an implicational tendency that the relevant marker will also signal Contingency." Given the synchronic polysemy pattern in , it seems more likely that uses of כי in the CCC semantic space emerged from the temporal use.

[296] The solution proposed below is that both the complementizer and adverbial connective uses developed in parallel from their common source in an original comparative preposition. This is both simpler and more explanatory, and entails that temporal כי is the source of subsequent CCC relations.

[297] However, as discussed below in section 9.2.3, there is reason to doubt the presence of a relativizer function within the usage profile of כי, and thus its role as the source of causal כי.

[298] Compare Hopper & Traugott (2003:91) where they note that "in German, the temporal meaning of *weil* 'during' has become obsolete and the causal has become the main meaning; interestingly causal *weil* came to be used in the latter part of the twentieth century with a concessive meaning (main clause rather than subordinate clause syntax)."

[299] Cf. Gen 48:14; Ezek 2:6; 12:3; 32:25, 26, 27 (in Ezek 32:25–27, the downfall of Elam and Meshech-Tubal could either be because of their terrorizing, or despite it), Ps 27:10.

(120)   Ezek 3:9b

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לֹא־תִירָ֤א אוֹתָם֙ וְלֹא־תֵחַ֣ת מִפְּנֵיהֶ֔ם כִּ֛י בֵּית־מְרִ֖י הֵֽמָּה׃

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Do not fear them and do not be dismayed before them, although they are a rebellious house.

Translations are generally split between causal (e.g. LXX, JPS1917, ESV, NET) and concessive (e.g. KJV, JPS1985, NASB, NCV, NIV) renderings. This seems to be due to the fact that in these sorts of contexts such logical relationships fall at a mid-point between causation and concession. Such contexts reveal the conceptual seams between these relations and may serve as loci of reinterpretation form causal to concessive. Here, a negated causal construction with broad-scope negation can be reinterpreted as a concessive construction with narrow-scope negation. The first case could be paraphrased, "Don't fear or be dismayed because they are rebellious," and would be expressing an improper motivation for fear and dismay. Such a causal interpretation is facilitated by its position after the main clause and the fact that כי governs a verbless clause (much less common for concessive כי than causal כי). However, since the rebellion of Israel is known normally to be sufficient causal grounds for the fear and dismay of a prophet (i.e. because of the threat of physical harm for their unpopular message, e.g. 1 Kgs 18:4; 19:10), this yields a concessive reading.[300] That is, the normally expected causal relation is what is being negated, rather than the content of the כי clause, as is characteristic of concessive constructions. Furthermore, the *zaqef qaton* separating the כי clause from its main clause also suggests that the negation has narrow-scope over the main clause alone, which fits the pattern of such a reanalysis.[301] However, as will be discussed under condition below, a more potent source for the development of concessive כי is likely conditional כי. Not only is this crosslinguistically better attested, but in Hebrew itself, conditional and concessive כי are more syntactically similar (e.g. preference for initial position and the use of the *yiqtol*), making this development the path of lesser resistance. Nevertheless, as with the multiple possible sources of causal כי, these different loci for the emergence of concessive כי need not necessarily be pitted against each other, but may contribute (in different degrees) to its development.

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[300] Cases where the negated causal relation is not held to be normally true do not facilitate such concessive interpretations (e.g. Isa 41:10; Jer 1:8).

[301] Such non-integration could also be consistent with a speech-act causal כי.

Causal > adversative: Another typologically plausible development of causal כי seems to be adversative כי. While other sources of adversatives are possible (e.g. temporals and conditionals as noted in section 6.3 above), Hebraists have often noted the ease with which an adversative meaning could arise from an originally causal relation (e.g. Joüon & Muraoka 2006:§172c fn. 1 and 2; Andersen 1974:183–184).[302] Bandstra (1982:150) explains: "The semantic development from cause to adversion is fairly straight-forward: x is not the case because y is the case, becomes not x but y. The two meanings are so close at times that they are difficult to distinguish, as in Gen 17:15: You will not call her name Sarai, for Sarah will be her name. This becomes adversative: …but Sarah will be her name."[303] In other words, when the cause of the main clause (e.g. "She will not be called Sarai, *because* she will be called Sarah") can also be construed as the counterpart to its negation (e.g. "She will not be called Sarai, *but* she will be called Sarah"), this can lead to an adversative interpretation.

Bandstra goes on to rightly point out that, despite the diachronic relationship, they must not be collapsed into a single use since they have divergent syntactic profiles, the very criteria cited in section 7.2 for distinguishing between uses within a polysemous set. However, despite divergence in syntactic preference, smoother transitional seams are also observable. For example, while adversative כי has a strong preference for negation in the main clause, this need not be overt, but may be implied. For example, in Gen 21:7, the rhetorical question in the main clause implies a negative answer, thus constraining an adversative interpretation of כי (cf. Bandtsra 1982:150).[304] Additionally, adversative uses only appear after the main clause to which it stands related. This corresponds to the preference for causal כי to occur in the same position. Therefore, contexts in which the cause of the main clause can also be construed as its adversative counterpart and where the negation of the main clause is overt or implied may have provided the initial reinterpretive loci for the development of adversative כי. Thus, causal כי may be a more probable source of adversative כי than temporal or conditional כי mentioned above, especially in light of what may be considered greater syntactic divergence between adversative כי as compared to temporal and conditional כי, the latter two having overwhelming preference for position before

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[302] As examples, Joüon & Muraoka (2006:§172c) give Gen 17:5 and 1 Kgs 21:15. Andersen (1974:183) also cites Gen 17:5, as well as Ex 4:10; 23:25; 34:13; Deut 4:22, 26; 5:3; 8:3; 9:5.

[303] Cf. Gen 3:5(1); 21:7; 48:18; Ezek 7:4(1); 10:11; 12:25(2); 14:18; 46:9; 1 Chron 21:24; 2 Chron 8:9; 17:4; 18:7(2); 22:24(1–2); 33:23.

[304] As analogous cases, Bandstra (ibid) cites Ps 11:3 and 130:4.

the main clause and the use of the *yiqtol*.[305] Coupled with the crosslinguistic data noted in section 6.3.3.4 showing the development of adversatives from causals, especially in dialogical discourse (Schwenter 2000) and following a negator (Ramat & Mauri 2008, 2011), these observations support viewing causal כי as the source of adversative כי. Semantically similar uses to adversative כי (e.g. exceptive, negative conditional "unless," restrictive "only") will be discussed below.

Causal > purpose/result: I now turn to the close relationship between causal כי and כי of purpose/result.[306] As noted above in section 6.3.3.3, the strongest affinities within the CCC semantic network include the relations of cause, reason, purpose, and result. The numerous cases across languages of a single form being used for some or all of these relations and the observation that purposes may be conceptually equivalent to final causes, are sufficient to suppose that there is a developmental link between causal כי and purpose/result כי. The precise developments that took place is more difficult to reconstruct. However, the evidence described above that the diachronically older temporal כי developed into causal (and conditional) כי supports viewing the directionality as being from cause to consequence rather than vice-versa.

A potential context for such an extension observed crosslinguistically to facilitate such developments is when a causal כי has a time reference posterior to its main clause, which is, of course, atypical of causal relationships (Kortmann 1997:323–324). For example, consider the following utterance.

(121)   I tried to explain my argument carefully because/so that/in order that it would be more convincing.

In such utterances, the causal rationale for an action is also its intended result.[307] The path from causal כי to purpose/result כי would also be facilitated by the fact that they approximate the syntactic preferences of causal כי in their occurrence after the main clause and ability to govern a

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[305] Bandstra (1982:149) mentions the fact that both concessive and adversative uses of כי involve contrast and prefer the use of a negative particle. However, as discussed in section 6.3.3.3 above, concessive relationships have been shown to be dead ends of inferential processes leading to extended uses. This makes concessive כי a highly unlikely source for adversative כי, or any other use for that matter.

[306] Note that this includes what has been called consecutive כי.

[307] Sæbø (1991:627) elegantly illustrates this by pointing out that the rational for an action can be given with either a causal or purpose clause.

variety of main verb forms, making their overlap in conceptualization and usage even easier.[308] However, while not restricted to the use of the *yiqtol* in the purpose/result כי clause, there is a clear preference for it. Thus, causal כי in contexts where the causal rationale for a volitional action could also be construed as its purpose, particularly when the use of the *yiqtol* in the causal clause makes its content posterior to the main clause. It may have been such contexts that led to the emergence of purpose/result כי.[309] An example of such a context in my corpus can be seen in the third כי clause in Gen 29:32.[310]

(122)   Gen 29:32

<table>
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<td>

וַתַּהַר לֵאָה וַתֵּלֶד בֵּן וַתִּקְרָא שְׁמוֹ רְאוּבֵן
כִּי אָמְרָה כִּי־רָאָה יְהוָה בְּעָנְיִי כִּי עַתָּה
יֶאֱהָבַנִי אִישִׁי:

</td>
<td>

And Leah conceived and gave birth to a son and she named him Reuben because she said, "For Yahweh has seen my affliction so that now my husband will love me."

</td>
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</table>

Here, the last כי clause in the verse could be interpreted as Yahweh's causal rationale for attending to Leah's affliction by giving her another son, i.e. "Yahweh has attended to my affliction because now my husband will love me."[311] That is, Yahweh acted because it would alleviate Leah's affliction. As described above, the fact that the content of such a causal clause is posterior to the main clause invites its interpretation as a purpose, i.e. "Yahweh has attended to my affliction so that now my husband will love me."[312] Of course, the difference between result

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[308] Bandstra (1982:136) reports that all consequential כי clauses (including marking result and apodosis clauses) in his corpus occur after their main clause and that the most common predicates they govern are *yiqtol* (27x) and *qatal* (10x).

[309] Furthermore, construing the כי clause as a purpose could be considered as a more relevant interpretation since it may highlight even more than a volitional causal relationship the intentionality of the agent. In section 9.1.2.5 where I present the data of purpose/result כי, I will also mention another context that is ambiguous between it and causal כי, but which does not appear to involve such inferential enrichment.

[310] Cf. Gen 38:16. Outside my corpus, see Num 22:29. Note that for Gen 29:32, I take the first כי as content volitional, introducing Leah's rationale for naming Reuben from the narrator's perspective and the second as metalinguistic, introducing Leah's rationale for naming Reuben from her own perspective.

[311] Note that for God to "see" or "hear" the affliction of his people is not a pedantic statement of mere observation but an idiom for his faithfulness to act on their behalf (cf. Gen 16:11; 31:42; Ex 3:7). Cf. Matthews (2005:480).

[312] Bandstra (1982:189) labels this use simply as result. He does not appear to distinguish between purpose and result, even though certain uses of כי seem to clearly entail the intention associated with purpose, e.g. Gen 38:16(3). Cf. DCH (386).

and purpose is that the former is factual and generally unintended while the latter is putative and intended Kortmann (1997:197).[313]

Another context in which causal כי may have possibly developed into purpose/result is from speech-act causal כי used to justify the asking of a question, discussed in section 8.1.1 above. This overlaps with the syntagmatic profile of several cases of purpose/result כי. Bandstra (1982:139–141) notes, "The formal structure <u>mh/my</u> … <u>ky</u> is the identifying syntactic feature of a large number of result clauses…"[314] These overlapping contexts create ambiguity between a causal and purpose/result interpretation.[315] Schoors (1981:262–264) notes this in his discussion of consecutive כי where he cites the definition of Köhler-Baumgartner (1958) "that *kî* here introduces the clause which indicates the inducement for an action." However, the "action" justified by the כי clause can either refer to the action of the addressee, the rationale of which is being interrogated, or the action of the speaker in interrogating the addressee's rationale (Schoors 1981:262–263). Thus, there is at times ambiguity between causal and purpose/result senses of כי in these cases.[316] Such a development would make sense in light of the close conceptual relationship between causal and purpose/result relationships and the fact that languages regularly employ the same form to communicate both.

Causal (non-content) > discourse marker: Finally, a potential development of causal כי appears to be into a discourse marker, which seems to offer a more precise explanation for many cases treated as asseverative uses of כי (especially in more recent, dynamically oriented translations). As noted above in section 8.2.4, cases of causal כי with a more schematic causal relationship and relating to larger sections of text were put forth as a likely locus for the emergence of its use as a discourse marker of continuing speech. Typologically speaking, it was argued in section 6.3.1 that discourse markers are a common developmental goal of adverbial connectives. For example, Schleppegrell (1991:323) has shown how English *because* developed into a discourse marker used to introduce an elaboration of a previous point or to indicate

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[313] It should be noted, however, that it is more difficult to explain the use of resultative כי along the lines I have proposed, since it would not necessarily entail the purpose of an agent. The same holds true for the use of כי to introduce the apodosis of a conditional clause.

[314] These include Gen 20:9, 10; 31:36; 37:26; 38:16; Ex 3:11; 14:5; 16:7; 32:21; Num 11:29; 16:11; 22:28; Ps 8:5 (2x); 114:5.

[315] While glossing כי as "for" can be awkward in these contexts, "since" often fits quite well.

[316] E.g. Gen 20:9, 10; 31:36; 1 Sam 26:15. Cf. Bandstra's (1982:293) comment on Gen 21:30. However, such overlaps in meaning appear to be different from cognitively motivated inferential enrichments. That is, in the cases being discussed here, the overlap seems to be simply the result of an ambiguous context rather than inferential process. Nevertheless, these need not be mutually exclusive, but may be mutually reinforcing.

continuation in conversational interaction.[317] Indeed, this is only one example of what is a crosslinguistic tendency (Traugott 1995b). Crucially, the causal uses continue to exist alongside the emergence of this more schematic discourse marker usage.[318]

Schleppegrell's (1993) study reveals that the causal meaning of *because* in such cases has become gradually more and more schematic until it is simply used as a marker of continuation in discourse (cf. Schiffrin 1987).[319] She also presents several intermediate cases where *because* still communicates a causal meaning, but one that is highly schematic, such as justifying the relevance of a previous statement (cf. Couper-Kuhlen 1996:422; Verhagen 2005:180; Onodera 2011:623). This parallels especially the metalinguistic use of כי discussed in section 8.1.2 and commends it as the most likely source of the development of כי into a discourse marker introducing continuing speech in discourse. Schleppegrell (1993:330) explains, "As a marker of continuation, *because* is a means for a speaker to hold the floor, indicating that he/she has more to say." In such cases, Schleppegrell (1993:333) elaborates, "the link displayed by *because* can be quite broad, as it introduces sequences which re-evoke topics and expand utterances prior to the previous clause."

A syntactic corollary of this schematization is that a causal connective will gain increasing scope over larger chunks of discourse (see references in section 6.3.1). Such developments are part of the ubiquitous pressure of subjectification discussed in section 6.2 (cf. Evers-Vermeul 2005:161). That is, a causal connective undergoing subjectification will progress from more objective causal relations expressing propositional relations in the external world, to expressing speaker-related causal relationships, to marking interactional relations in the ground of communication. Traugott (2010:36) notes that in this process, such discourse markers are used to simply keep things going or to draw the interlocutor's attention to the very continuation of the discourse itself.

While other sources of discourse markers are possible, Brinton (2006:311–315) observes that the cline Adverb/preposition > conjunction > pragmatic marker (i.e. discourse marker) is a

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[317] Note that Schleppegrell distinguishes between the functions of an "expressive, non-causal link" and "discourse marker" of continuing speech. However, in the following discussion I will simply use the term "discourse marker."
[318] In fact, Schleppegrell (1993:332–333) shows that the various functions of *because* often converge. Of course, this is to be expected given the dynamic perspective of language outlined in chapter 6.
[319] Rather than describing discourse markers as "void", I prefer to describe them as highly schematic, following Sapir's observation that "Now [sic] form lives longer than its own conceptual content" (quoted in Heine *et al.* 1991:9).

prototypical pathway.[320] Additionally, Bybee *et al.* (1994) and Bybee (2003, *inter alia*) point out that frequency is one of the key factors resulting in decategorization, autonomy, and bleaching which occurs in later stages of grammaticalization and would result in a schematic use like that of a discourse marker. The fact that the causal use of כי is by far the most frequent further suggests that it is the most likely source of כי as a discourse marker. Thus, through the process of subjectification leading into intersubjectification, non-content causal כי (especially its metalinguistic use) appears to have become increasingly schematized as a discourse marker used to introduce larger sections of texts as elaborations or continuations of ongoing speech.[321] Further details of such uses will be presented in section 9.2.2 below where I discuss this discourse marker function among the non-adverbial uses of כי.

9.1.2.2   Conditional

Conditional כי comprises about 7% (71 cases) of all uses of כי.[322] It is a fully semanticized use according to the criteria of semantic uniqueness. For instance, the כי clause in Lev 13:16 given in example (123) below has a clearly conditional reading to the exclusion of others. Here, this is highlighted by the use of או before the כי clause, which constrains the idea of alternative possibility, rather than certainty or likelihood associated with, for instance, temporal or causal

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[320] In fact, within the category of conjunction, Crevels (2000:328) argues based on data from 30 languages that it is the more schematic and subjective connectives that may be extended as discourse markers, positing the cline content > epistemic > illocutionary > textual, where the last stage represents connectives whose scope extends over many utterances. This cline corresponds more or less with the one presented in Figure 6.2 above and suggests that the most advanced use of causal כי (i.e. metalinguistic) is the best suited for extension as a discourse marker.

[321] Compare the four tendencies listed in Hansen (2006:29): "(i) the tendency for meanings to become increasingly subjective; (ii) the tendencies for conceptual or truth-conditional meanings to become, respectively, increasingly procedural or non-truth-conditional; (iii) the tendency for meanings with subpropositional scope to progressively enlarge their scope, possibly even to the discourse level; and (iv) the tendency for meanings that originally make reference to the described event to come to make reference to the speech event itself."

[322] Cf. Bandstra's (1982:126, 410) reported 11% and Follingstad's (2001:411) reported 3%. The differences can be accounted for in light of the different texts included in each corpus. Inclusion of Leviticus in my corpus, which contains the largest count of conditional כי, yields a far larger number of conditionals that Follingstad's which does not contain any significant amount of casuistic texts. The greater percentage reported by Bandstra is accounted for by the fact that his corpus includes the entire Pentateuch, which contains additional casuistic texts than Genesis and Leviticus in my corpus, such as the Book of the Covenant (Ex 20:22–23:19) as well the legal text of Num 5–19 and Deut 12–26. All the cases in my corpus are found at the following references: **Gen** 4:24; 37:26; **Lev** 5:1, 3, 4, 15, 17, 21; 7:21; 11:37, 38, 39; 12:2; 13:2, 9, 16, 18, 24, 29, 31, 38, 40, 42, 47, 51; 15:8, 25(1-2); 19:20(1); 20:9, 27; 21:9; 22:9, 11, 12, 13, 14; 23:29; 24:15, 17, 19; 25:14, 20, 25, 26, 29, 35, 39, 47; 27:2, 14; **Ezek** 3:19, 20, 21(1); 14:9, 13; 18:5, 21; 33:2, 6, 9, 10; 46:16, 17; **Ps** 11:3; 37:24(1); **2 Chron** 6:28(1-4), 34.

readings.[323] In fact, Bandstra (1982:128) observes that of all uses of כי, it is almost exclusively

the conditional use that may be prefixed by a conjunction.[324] Conditional uses are distinguished

from others in כי's semantic polysemy by its virtual requirement of the *yiqtol* as its main verb and

position before the apodosis of the conditional construction.[325] Conditional כי is also highly

restricted to casuistic texts in my corpus (cf. Schoors 1981:270; Bandstra 1982:126; Aejmelaeus

1993:171). Of the 70 cases in my corpus, 55 occur in clearly casuistic contexts, 48 of which are

found in Leviticus. As has been widely observed, כי is often used to introduce main sections of

casuistic law, while אם introduces subsections.[326] A characteristic that seems to be tied to its use

in casuistic contexts is the frequent use of a left-dislocate before the conditional כי.[327] While fully

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[323] Mauri & van der Auwera (2012:397) write: "What distinguishes conditional relations from temporal and, especially, causal ones is indeed the uncertainty of the condition, which makes the whole co-occurrence of the two SoAs [states of affairs] a possibility, rather than a fact (or a non-fact)."

[324] For conditional כי prefixed with conjunction ו, see Lev 5:3; 11:37, 38, 39; 13:31, 42; 15:8; 25:14, 20, 35, 39, 47. For cases of כי immediately preceded by או, see Lev 5:3; 13:16; 15:25(1–2).

[325] Cf. Bandstra (1982:126) who reports that out of 161 conditional כי's in his corpus, 154 employed the *yiqtol*, 5 employed the *qatal*, and once in the Psalms a participle is used. He also reports 9 cases where the conditional protasis follows the apodosis. Exceptions to this in my corpus include Ezek 3:19; 33:9 which use the *qatal* and Ezek 33:10 which employs a verbless clause. Schoors (1981:269–270) also mentions conditional כי in 2 Sam 19:8 used with a participle with future reference. Gen 37:26 and Lev 22:9 appear to employ a conditional clause after the apodosis.

The almost absolute use of the *yiqtol* with conditional כי appears to be connected to the fact that it is used for real rather than contrary-to-fact conditions (Schoors 1981:270; Bandstra 1982:126, but see Joüon & Muraoka 2006:§167.i). Such contrary to fact conditionals regularly employ the *qatal* and are introduced by לוּ (e.g. Judg 8:19; 13:23; Mic 2:11) and לוּלֵא/א (Gen 31:42; 43:10; Judg 14:18; 1 Sam 25:34; 2 Sam 2:27; Is 1:9; Ps 106:23). HALOT also lists cases where לוּלי is used with a *yiqtol* (Deut 32:27), with a participle (2 Kgs 3:14), and in a nominal clause (Ps 94:17; 119:92 124:1). This fact turns out to be crucial for conditional כי as the locus of semantic extension described below, since, as observed by Kortmann (1997:16), "only conditionals denoting open (or: real) conditions typically serve as starting-point of semantic changes or interpretative enrichments…" including cause, concessive condition, and concession.

[326] See Bivin (2016:161–162) for an overview and analysis from the perspective of Construction Grammar. In the Hebrew of Qumran, Muraoka (2000:212–213) observes that כי can be seen to give way to the less polyfunctional אם (Cf. Peursen 2000:231). Furthermore, אם in Rabbinic Hebrew has developed a concessive use (Perez Fernandez 1997:215), a very common extension of conditionals, as will be discussed below with conditional כי.

[327] This occurs most frequently in Leviticus: Lev 5:15, 21; 7:21; 12:2; 13:2, 9, 24, 29, 38, 40, 47; 15:25; 19:20; 20:27; 21:9; Lev 22:11, 12, 13, 14; 24:15, 17, 19; 25:26, 29; 27:2, 14. Bandstra (1982:127–128) calls this topicalization. Following Westbury (2014, 2016), I refer to these constructions as left-dislocation. Essentially, the left-dislocated element is moved outside the clause boundary to (re)activate it as the discourse topic while some element in the clause (often a resumptive pronoun co-referential with the dislocate) can be structured as the focus. Westbury's explanation of the phenomena as a structuring device of topic and focus compliments Bandstra's (1982:127) observation that it also structures the larger discourse "as a rough heading for the following law with its sub-categories." Left-dislocation is also found in Ezek 14:9, 13; 18:5, 21; 33:2, 6, 9, which have a casuistic flavor. Compare Bandstra (1982:134), Block (1997:142), and Allen (1998:142). This may also be found with temporal כי. Recall example (116) just discussed in section 9.1.1 above. Also recall the causal uses noted to occur with a left-dislocate in section 8.2.1.2.

253

semanticized, the syntactic and contextual constraints of conditional כי mitigate its contextual frequency and therefore its degree of prototypicality within the overall usage profile of כי.[328]

As already described concerning the temporal and causal uses, while the divergent syntactic preferences of conditional כי distinguish it from other uses, perfect complementary distribution is not the norm in natural language. Rather, cases of ambiguity are expected, especially between conditional כי and its conceptually related uses (e.g. temporal, concessive) that reveal the seams of its past development through its synchronic polysemy. In terms of the source of conditional כי, its likely development from temporal (simultaneous coextensiveness) כי was already described in section 9.1.1 above. In terms of developmental goals of conditional כי, the possibility that it served as (one of) the sources of causal כי was also already discussed in section 9.1.2.1.

Conditional > concessive conditional > concessive: A clear development of conditional כי was into concessive כי via a concessive conditional bridge (cf. example (72) in section 6.3.3.3). The stages of this development can be illustrated in examples (123–126) below.

(123)   Lev 13:16

אֹ֣ו כִ֥י יָשׁ֛וּב הַבָּשָׂ֥ר הַחַ֖י וְנֶהְפַּ֣ךְ לְלָבָ֑ן וּבָ֖א אֶל־הַכֹּהֵֽן׃

Or if the flesh comes back to life and turns white, then he will go to the priest. [...and will be clean]

(124)   Ps 37:24 (1)

כִּֽי־יִפֹּ֥ל לֹֽא־יוּטָ֑ל כִּֽי־יְהוָ֗ה סֹומֵ֥ךְ יָדֹֽו׃

Even if he falls, he will not be cast down. For Yahweh upholds his hand.

(125)   Ps 23:4 (1)

גַּ֤ם כִּֽי־אֵלֵ֨ךְ בְּגֵ֪יא צַלְמָ֡וֶת לֹא־אִ֘ירָ֤א רָ֗ע כִּי־אַתָּ֥ה עִמָּדִ֑י שִׁבְטְךָ֥ וּ֝מִשְׁעַנְתֶּ֗ךָ הֵ֣מָּה יְנַחֲמֻֽנִי׃

Even if I walk through the valley of the shadow of death, I will not fear evil. For you are with me. Your rod and your staff, they comfort me.

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[328] Its competition with the far less polysemous conditional אם likely mitigates this even further.

254

(126) 1 Chron 5:2

כִּי יְהוּדָה גָּבַר בְּאֶחָיו וּלְנָגִיד מִמֶּנּוּ
וְהַבְּכֹרָה לְיוֹסֵף:

Although Judah was strong among his brothers and was chief, the right of the first-born belonged to Joseph.

Lev 13:16 in example (123) has already been discussed in terms of the semantic uniqueness of the conditional reading. The crucial point here is that it displays the characteristics of a typical conditional construction: the protasis is only potential (as opposed to a "when" interpretation which would not make sense here, see comments above), and the apodosis is generally held to follow from the protasis. Going to the priest and being pronounced clean (v. 17) follows from the skin disease being healed. Moving to Ps 37:24 (1) in example (124), we see a case where conditional כי is placed in a context in which the protasis and apodosis are generally incompatible. That is, "falling" usually does entail being "cast down." This renders a concessive conditional reading "even if" (cf. Joüon & Muraoka 2006:§171.b). This maintains the potentiality of the conditional, while adding the concessive characteristic of asserting that normally incompatible events would coincide if this potential were realized (cf. König 2006:822). It is this potentiality that continues to distinguish it from a genuine concessive (cf. NET).[329] Such concessive conditional readings are constrained even more when conditional כי is immediately preceded by the focus particle גם, as in Ps 23:4 (1) in example (125).[330] The use of a focus particle with a conditional to yield a genuine concessive has even been suggested as a potentially universal phenomenon (König 2006:822). This variously rendered construction should therefore probably be rendered as either a concessive conditional or genuine concessive, depending on whether the context reinforces the factuality of the protasis, or merely its potential. Finally, examples such as (126) show the final stage of such a development where כי introduces

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[329] Compare the factual, not merely potential, status of the concessive כי clause in 1 Chron 5:2 in example (126). As explained by Kortmann (1997:199–200): "The propositional schemas 'even if *p, q*' and 'although *p, q*' have in common that both entail the consequent *q* and that *p* carries an implication of being incompatible with *q*. The difference is that *even if* clauses are hypothetical and thus typically have subjunctive or other modalized verbs, while *although* clauses are factual and typically have indicative verbs."

[330] Compare Schoors (1981:273) where he observes: "Quite often the concessive force is strengthened by adding *gam* before *kî*" (cf. Bandstra 1982:133; Aejmelaeus 1993:173; Joüon & Muraoka 2006:§171.a–c). For further examples, see Lam 3:8; Isa 1:15; Hos 8:10; 9:16. Eccl 8:17 has גם אם (contra Joüon & Muraoka 2006:§171.a) with a concessive conditional reading. On the use of גם as a focus particle, see Van der Merwe (2009a) and Van der Merwe *et al.* (2017:§40.20).

the protasis of a clearly concessive clause, the factuality of which coincides with the factuality of the apodosis, while at the same time both are held to be generally incompatible.

Through the conventionalization of the added implicatures traced here (via metonymic, part-for whole extension), such a process would yield semanticized concessive uses. Thus, Schoors' (1981:271) observation was nearly spot-on when he wrote concerning כי, "From conditional to concessive clause it is but one step." As noted above in section 9.1.2.1, causal כי may also serve as a locus for the emergence of concessive כי. However, not only is it more typologically likely for conditionals to develop into concessives, the greater similarity in syntactic preferences of concessive and conditional כי would also appear to better facilitate such a developmental path. Yet, once again, these need not be mutually exclusive.

9.1.2.3 Concessive

Turning to concessive כי, I have only identified 15 cases (≈1.5%) for which this seems to be the best reading.[331] Recalling the comments at the end of section 6.3.3.3, the fact that concessives (a dead-end street of inferential enrichment) are the most advanced sense in the CCC semantic space makes its low count unsurprising.[332] However cases such as 1 Chron 5:2 discussed in example (126) above appear to fulfill the criteria of semantic uniqueness. Bandstra (1982:129) notes that Vriezen (1958) was the first to offer an extensive treatment of the already widely recognized concessive use of כי. However, some scholars have often disputed putative cases. Schoors (1981:272) contends that for some of Vriezen's proposals, other interpretations are possible. Though, he does go on to concur that there are indeed cases where the concessive meaning is preferable and even doubtless. Aejmelaeus (1993:173–174, 181–182) is probably the most skeptical of a concessive use and lists alternative interpretations for a great number of proposed cases. Nevertheless, even she concedes that the cases with גם כי are "clearly concessive," citing Isa 1:15, and that in several cases of כי without גם, "the context also seems to suggest a concessive rendering," citing Jer 51:53 and Zech 8:6.

As with several other CCC adverbial relations, concessive uses often overlap with others, especially conditional and temporal, as just discussed above at the beginning of section 9.1.2.2

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[331] Follingstad's (2001:412) reports 1% of uses being concessive in his similarly-sized corpus. Bandstra (1982:129) reports 36 cases out of 1,480 (≈2%). The cases in my corpus are found at **Gen** 31:37; 48:14; **Ezek** 2:6(1); 3:9; 11:16(1-2); 12:3; 32:25, 26, 27, 32; **Ps** 21:12; 23:4(1); **1 Chron** 5:2; **2 Chron** 24:24(1).
[332] This may also make sense of why there are no cases of concessive *ki* attested in CAD (cf. Bandstra 1982:404).

and at the beginning of section 9.1.1, respectively. For example, concessive כי also has a clear preference for first position in the clause complex. 11 of the 15 cases (≈73%) in my corpus appear in such a position.[333] Bandstra (1982:129–130) explains final position in the clause complex by noting that these seem to occur in cases where the concessive clause is parenthetical or an afterthought.[334]

However, several divergent characteristics are also observable, marking out concession as a distinct sense within the semantic polysemy of כי. For example, as observed by Bandstra (1982:130), while concessive clauses are expendable, conditional clauses are required. Furthermore, it was noted that conceptually, concession is essentially negated causation (see section 6.3.3.3). Therefore, there is a strong preference for concessives to occur either with some negative particle or with elements in the protasis and apodosis that are held to be generally incompatible on background knowledge (cf. Bandstra 1982:130–132). Additionally, with the exception of Ps 23:4, all the clauses in my corpus that may be identified as concessive כי employ the *qatal* or a verbless clause, and as discussed above in example (124), Ps 23:4 actually occupies the concessive conditional midpoint between condition (which typically uses the *yiqtol*) and concession. This fits with the conceptual nature of concession in which the apodosis and protasis are typically actual, rather than merely potential as with conditionality.

In terms of the origin of the concessive use, causal כי and especially conditional כי were already presented as the most likely sources for its emergence in section 9.1.2.1 and 9.1.2.2, respectively.[335] In terms of its developmental goals, it has already been observed at the end of section 6.3.3.3 that concession is a dead-end street when it comes to interpretive enrichment.

9.1.2.4 Adversative

I have identified 65 cases (just over 6%) of adversative כי in my corpus.[336] I include here cases of adversative כי by itself (127) and in the כי אם construction, "exceptive" כי אם (128), as

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[333] Cf. Bandstra's (1982:129) reported (86%).

[334] E.g. Gen 48:14; Ezek 2:6; 3:9, 12:3. Compare Bandstra's (1982:129–130) discussion of Ex 13:17. Bandstra (1982:130) suggests that the כי in Deut 4:15 is placed in the middle of the main clause. However, in light of the above analysis in sections 8.1.2 and 8.2.1.3, it may be preferable to take this as a metalinguistic causal reading instead of what would otherwise be a very unusual syntactic ordering of a concessive כי clause.

[335] Typologically, these pervasive grammaticalization paths make it very unlikely that concessive כי derived from its putative original "emphatic" sense as Vriezen (1958) suggested.

[336] This is very close to Bandstra's (1982:149) report of approximately 6.5% (101 cases out of 1,480). Follingstad (2001:412) also reports 6%. The cases of adversative/restrictive כי include **Gen** 17:15; 18:15(2); 19:2; 21:7; 24:4; 42:12; 45:8; **Ezek** 7:4(1); 10:11; 12:25(2); 14:18; 46:9; **Ps** 14:5, 6; 22:10; 38:16; **1 Chron** 21:24(1); 29:1(2), 14(1);

well as restrictive (129), i.e. "only," uses. I will also briefly mention the possible use of כי as a negative conditional, i.e. "unless" (130). As already noted in section 9.1.2.1 above, adversative כי always follows the clause to which is stands related.[337] It also overwhelmingly occurs with main clauses that contain a negative particle, especially לא.[338] The many clear examples of adversative כי throughout the Hebrew Bible make it hardly necessary to defend its fulfillment of the semantic uniqueness criteria to qualify as being a genuine sense within the semantic polysemy of כי. Its divergent syntactic constraints (i.e. occurrence after the main clause and the use of some negative element) also distinguish it from other uses within the polysemous set.

While these constraints may appear to make adversative כי appear relatively restricted in terms of contextual frequency, thus bearing on its entrenchment and prototypicality, this may not be the case on further consideration. That is, the syntactic preferences observed in adversative כי stay within the inherent characteristics of adversatives. Adversatives by their nature occur after the clause to which they stand related. Furthermore, any time an adversative is used in a felicitous way, the clauses it connects will by necessity have some sense of contrast. The only time this wouldn't be true is in nonsensical utterances like, "The ice is cold, but it is not hot," where even a clearly adversative connective like *but* does not make sense in this context. However, the requirement of אם for the exceptive use of כי does seem to be a special constraint that would mitigate the degree to which its frequency impacts its prototypicality in the usage profile of כי.[339]

The following examples illustrate these uses within the adversative category of כי's semantic potential. The כי clause in 2 Chron 30:18 (2) in example (127) shows a typical adversative כי. This example is particularly illustrative since it is very hard to see any other

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2 Chron 6:9; 8:9; 12:8; 16:12; 17:4; 18:7(2); 19:6(2); 20:10, 12(2), 15(2); 25:4(1-2); 26:18(1); 30:18(2); 33:23; 35:21, 22. Cases of adversative/restrictive כי אם are **Gen** 32:29(1); 35:10; 40:14; **Lev** 21:14; **Ezek** 12:23; 33:11; 36:22; 44:10, 22, 25; **Ps** 1:2, 4; **1 Chron** 2:34; 23:22; **2 Chron** 18:17, 30; 25:8(1). Cases of exceptive כי אם are **Gen** 15:4; 28:17; 32:27(2); 39:6, 9; 42:15; **Lev** 21:2; 22:6; **1 Chron** 15:2(1); **2 Chron** 2:5(2); 21:17; 23:6(1).

[337] Adversative כי may also simply follow לא (e.g. Gen 18:15; 19:2; 42:12).

[338] Various other negative particles are also found, though which much less frequency. Other negative elements Bandstra (1982:150, 414) lists include negators such as אל and אין (e.g. 2 Chron 18:7(2)). Bandstra also notes that some contrastive pair between the clauses is also sometimes used in the absence of an overt negative particle. For example, a rhetorical question with an implied negative answer could serve such a purpose in the absence of a negative particle, as in Gen 21:7.

[339] There are, however, several cases of כי אם that appear to be best taken as a simple adversative "but" (e.g. Gen 35:10; Ex 12:9; Ezek 44:10).

possible interpretation of כי other than as adversative *but* in this context.[340] In section 9.1.2.1, I have already discussed the typologically likely development of adversative כי from causal כי, which Hebraists have long proposed.[341]

(127)   2 Chron 30:18 (2)

כִּי מַרְבִּית הָעָם רַבַּת מֵאֶפְרַיִם וּמְנַשֶּׁה יִשָּׂשכָר וּזְבֻלוּן לֹא הִטֶּהָרוּ כִּי־אָכְלוּ אֶת־הַפֶּסַח בְּלֹא כַכָּתוּב כִּי הִתְפַּלֵּל יְחִזְקִיָּהוּ עֲלֵיהֶם לֵאמֹר יְהוָה הַטּוֹב יְכַפֵּר בְּעַד	For most of the people, many from Ephraim and Manasseh, Issachar and Zebulin had not cleansed themselves. But they ate the Passover in a way not according to what is written, because Hezekiah had prayed for them saying, "May the good Yahweh forgive on their behalf."

(128)   Gen 28:17

וַיִּירָא וַיֹּאמַר מַה־נּוֹרָא הַמָּקוֹם הַזֶּה אֵין זֶה כִּי אִם־בֵּית אֱלֹהִים וְזֶה שַׁעַר הַשָּׁמָיִם	And he was afraid and said, "How awesome is this place! This is nothing except the house of God and this is the gate of heaven."

(129)   1 Chron 23:22[342]

וַיָּמָת אֶלְעָזָר וְלֹא־הָיוּ לוֹ בָּנִים כִּי אִם־בָּנוֹת	And Eleazar died and he did not have any sons, only daughters.

(130)   Gen 32:27 (2)[343]

וַיֹּאמֶר שַׁלְּחֵנִי כִּי עָלָה הַשָּׁחַר וַיֹּאמֶר לֹא אֲשַׁלֵּחֲךָ כִּי אִם־בֵּרַכְתָּנִי:	And he said, "Release me. For dawn is rising." And he replied, "I will not release you unless you bless me."

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[340] Translations that attempt to render it with some other relationship must drastically change the text's syntax in order to make another reading work (e.g. NLT, NCV, GNB, CEB).

[341] While the putatively original "emphatic" function of כי has been proposed as a source of adversative כי (e.g. Schoors 1981:251 and references there), the typological evidence we would expect to find if such a development were likely is absent. Coupled with the highly disputed status of so-called emphatic uses and the fact that it almost seems to have become simply a favorite source to posit for all sorts of other uses, its explanatory power seems to be lacking, especially when compared to simpler and better-attested alternatives.

[342] Cf. Ezek 44:22, 25; 1 Chron 2:34.

[343] Cf. Gen 42:15.

259

(131)   Gen 40:14

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כִּי אִם־זְכַרְתַּנִי אִתְּךָ֙ כַּאֲשֶׁר֙ יִיטַב לָ֔ךְ
וְעָשִֽׂיתָ־נָּ֥א עִמָּדִ֖י חָ֑סֶד וְהִזְכַּרְתַּ֙נִי֙ אֶל־
פַּרְעֹ֔ה וְהוֹצֵאתַ֖נִי מִן־הַבַּ֥יִת הַזֶּֽה

</div>

But if you remember me when it is well with you, then please act kindly toward me and mention me to Pharaoh and bring me out from this house.

Adversative + conditional > exceptive/restrictive/negative conditional: Gen 28:17 in example (128) illustrates an exceptive use of כי אם where it is difficult to admit a different reading.[344] The restrictive use of כי אם seen in texts like 1 Chron 23:22 in example (129) is conceptually fluid with exceptive uses, as is crosslinguistically typical (Kortmann 1997:87). In terms of the origin of this use, there is good reason to think that exceptive/restrictive כי אם developed from adversative כי + conditional אם. Such a source has already been recognized for some time in Hebrew scholarship.[345] In many cases, the original adversative כי plus conditional אם appears to be transparently recoverable if the presumably elided apodosis is supplied. Thus, Ex 12:9 could be read "Do not eat any of it raw or boiled in water, **but if** it is roasted with fire, its head, its legs, and its inner parts, (then you may eat it)." In such cases, כי אם could be naturally reanalyzed as *except* or *unless*. In fact, some cases like Gen 40:14 in example (131) can even be seen as an adversative כי followed by אם heading a well-formed conditional construction (cf. Driver 1892:142; Waltke & O'Conner 1990:533; Hamilton 1995:478, 480).[346] Furthermore, the fact that אם also combines with other adversative words to yield an exceptive construction adds support to such an analysis of כי אם (Waltke & O'Conner 1990:642–643). Additionally, we may

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[344] While this could possible be glossed with English *but*, this seems to be only due to the polysemy of *but* being able also to function as an exceptive. In other words, the idea communicated by כי in Gen 28:17 cannot be paraphrased as a simple adversative (not x, but y). Rather, the כי אם can only be made sense of as an exception to the main clause, i.e. the place was not anything, with the following exceptions: it was the house of God and the gate of heaven. Compare the rendering in most translations, which is usually some variation of "none other than."

[345] According to Joüon & Muraoka (2006:§173.b fn. 5), "This is a transition from the sense of *but if* to that of *if... not* (Lat. *nisi*), e.g. Gn 32:27 "I will not let go of you, *but if* you bless me (I will let go of you)" > "I will not let go of you *if* you do *not* bless me." Also see Bandstra (1982:155).

[346] The sense this makes of an otherwise unusual construction here seems to commend this interpretation over the suggestion in Gesenius *et al.* (1910:§163.d) that the clause "I desire nothing else" be inserted before and that **כי אם** be translated "except *that*." Concerning the usual translation of זְכַרְתַּנִי as a command, "remember me," Driver (1892:142 fn.2) contends, "I know of no justification for the usual rendering of the *bare* pf. זכרתני as either an imperative, or a 'modal' future." The analysis proposed here also seem to be more explanatory than simply regarding the use of אם as pleonastic to adversative כי. Muilenburg (1961:141) seems to take this pleonastic view in at least some cases. Schoors (1981:251–252) sees the adversative uses of כי אם in such a pleonastic way, but also acknowledges exceptive uses as being connected to adversative כי. For similar cases where an adversative + conditional sense of exceptive כי אם can be recovered, Bandstra (1982:155) also lists Gen 32:27; 42:15; Ex 23:22.

also point out that the various functions of כי are observed to occur immediately before, but separate from, conditional אם (e.g. as a complementizer in Jer 26:15 or causal in Ex 9:2; 10:4). Thus, it is unsurprising to find adversative כי in such contexts, except in those cases it served as the locus of reanalysis into exceptive כי אם, which shows signs of unitization in the Hebrew Bible.[347]

To all of this language-specific data we may add the corroborating crosslinguistic evidence for such a relationship between conditionals and exceptives presented in section 6.3.3.4 (especially examples (75)–(76) above). There are also several cases where such an adversative + conditional reading is much more difficult to recover, since the main clause is totally negated, not simply a particular exception to it, and thus may be best rendered as a simple adversative *but*.[348] This may be taken as further evidence of the generalization and unitization of כי אם beyond the more specific exceptive sense in which a specific case is negated out of a larger group (X is true, except for Y), to a more generic adversative where simple contrast is communicated (Not X, but Y). Thus, there exists the very sort of gradual continuum we would expect to be left over from normal processes of grammaticalization (recall the stages in Figure 6.1 above). Finally, it is typological likely that exceptive כי אם developed a negative conditional sense, as in Gen 32:27 (2) in example (130).[349]

9.1.2.5 Purpose/result

There are only 10 cases (≈1%) of purpose/result כי (also referred to as consecutive, final, consequential) in my corpus.[350] The syntactic profile has already been touched on in section 9.1.2.1 where the possible development from cause to purpose/result was described.[351] The third כי clause in Gen 38:16 in example (132) shows a clear use of purpose/result כי.[352]

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[347] Recall that in section 6.1.4 unitization was discussed as a phenomenon of grammaticalization, which Bybee (2003:603) characterizes as "the process by which a frequently used sequence of words or morphemes becomes automated as a single processing unit."

[348] See references to cases of adversative/restrictive כי אם in fn. 336 above. Outside my corpus, see Ex 12:9.

[349] Recall, once again, examples (75)–(76) discussed in section 6.3.3.4 above.

[350] Cases in my corpus are found at **Gen** 20:9, 10; 29:32(3); 38:16(3); 40:15(2); **Ps** 8:5(1-2); **1 Chron** 17:16; 29:14(2); **2 Chron** 32:14. Despite its few occurrences, Bandstra (1982:142ff) observes that many of the emphatic uses are better explained as result, and that the neglect of this function has led to an undue proliferation of uses purported to be emphatic.

[351] By way of a brief reminder, there it was noted that purpose/result כי always occurs after its main clause and that, while it shows some preference for the use of the *yiqtol* form for the main verb of the כי clause, it is not uncommonly found with other forms.

[352] Cf. Gen 29:32(3) discussed in example (122) above (cf. DCH 386)

261

(132)   Gen 38:16b

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וַתֹּ֙אמֶר֙ מַה־תִּתֶּן־לִּ֔י כִּ֥י תָב֖וֹא אֵלָֽי׃
</div>

And she said, "What will you give me so that you may come in to me?"

Unlike mere result, intentionality is clearly involved here.[353] However, in several other cases it may simply have the sense of result, without necessarily involving purpose.[354] In terms of the origin of this use, I have already described several ways in which causal כי appears to have developed into purpose/result כי in section 9.1.2.1 above. Crass & Meyer (2011:1268–1269) also note that complementizers have been observed to develop into adverbial connectives of purpose in all investigated Ethiosemitic and Cushitic languages (cf. Crass & Meyer 2008:238–240). Thus, causal and complementizer כי may have both served as loci for the emergence of purpose/result כי.

9.1.2.6   Conditional apodosis marker

One of the uses of כי that is particularly difficult to categorize is its seeming function to mark the apodosis of a hypothetical condition introduced by לאלי/לולא. This is a rare use, but it has long been proffered by Hebraists (e.g. BDB; Bandstra 1982:141; Aejmelaeus 1993:181–182 fn. 40). However, כי in such cases has also been identified as the disputed "asseverative" or some other use (e.g. Schoors 1981:250). There are only two candidates for this use in my corpus (Gen 31:42; 43:10 (2)).[355] In both cases, the כי is followed by עתה.[356] Bandstra (1982:141) notes that the use of כי in these cases with a temporal adverb may be taken as evidence that it should be analyzed as asseverative, since the temporal adverb presumably handles the job of marking the apodosis. However, he responds that this function of כי also occurs without a temporal, citing Isa 7:9 (cf. Schoors 1981:250). In any case, unless it can be established that this use is an older semanticized one simply losing ground, its extremely low frequency and confinement to such a

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[353] The use of the *yiqtol* also fits the profile of purpose vis-à-vis result, since the former typically employ subjunctive modality (Kortmann 1997:91) compatible with the *yiqtol* in such contexts (cf. Van der Merwe *et al.* 2017:§ 19.3.2.2).

[354] E.g. Gen 20:9, 10; 40:15(2); Ps 8:5(1–2); 1 Chron 17:16; 29:14; 2 Chron 32:14.

[355] Outside my corpus, see Num 22:29, 33; 1 Sam 14:30; 2 Sam 2:27; 19:7; Job 6:2–3 8:6.

[356] In other cases it is followed by או (e.g. 2 Sam 2:27; 19:7).

262

special context suggests a very low degree of impact upon its entrenchment within the usage profile of כי.

Complementizer, result > apodosis marker: While perhaps not as well attested as the other grammaticalization paths offered as an explanation and organization of כי's polysemy, cases have been observed in which complementizer words develop into conditional apodosis markers (Frajzyngier 1996:407–409). Thus, a provisional hypothesis may be that complementizer כי developed this function.[357] As for cases where כי is followed by a temporal, Heine & Kuteva (2001:6) note that words like "then" have been observed to develop from more complex constructions involving temporal and complementizer-like words, as in "when it is like that" > "then." Alternatively, Gesenius & Treggeles (1846:392) propose that the apodosis use derives from the temporal. Bandstra (1982:141) does not explicitly suggest a source of development, but does categorize this use with what he calls consequential כי (i.e. result), which may also be considered for its semantic affinity with apodosis markers. This has the appeal that conditional apodoses are essentially presenting the result of the actualized protasis. As with other paths described above, this could possibly taken as the convergence of paths leading toward the use as an apodosis marker, since as noted above, there is a particularly astonishing pervasiveness of polyfunctional connectives marking cause, purpose, result, as well as functioning as *that*-complementizers (Kortmann 1997:198–199). That is, the fact that כי functioned to head both result clauses and complement clauses may have mutually reinforced its development into an apodosis marker. However, once again, these proposals should be taken as provisional relative to the strength of the typological evidence and are subject to modification or replacement in light of more data.

9.2   Non-adverbial uses of כי

We now come to uses of כי outside of its adverbial functions. Here I will discuss the use of כי as a complementizer and discourse marker. I also discuss here the debated uses of the putative relativizer כי and so-called asseverative כי, though I end up not favoring their inclusion within the usage profile of כי. This will build in particular on the groundwork laid in section 6.3 where I described the common category continua that converge at adverbial connectives,

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[357] Cf. Follingstad's (2001:413) grouping of this function under the substantival uses of כי, suggesting its close relationship with complementizer כי. Also see fn. 374 below for a possible context in which complementizer כי may have been able to be reanalyzed as an apodosis marker.

represented in Figure 6.3. This will prove heuristically valuable for determining the most likeley orientation of כי's adverbial uses relative to its non-adverbial uses. However, the details of these broader intercategorial connections is less clear than those described among the various adverbial uses of כי. The main reason for this is because the source from which I propose they developed is no longer in use. As will be discussed in section 9.3, I propose that the best way to understand the diachronic connection (and therefore synchronic polyfunctionality) between all of כי's uses is via their common origin in a modal preposition of comparison (i.e. "like, as"), which still survives in the related preposition כ from which it split before the time of the biblical corpus as we know it. I will suggest that this single use is the simplest and most typologically likely explanation for the synchronic polysemy of כי, since prepositions have been widely observed to develop into both adverbial connectives (which in turn may develop into discourse markers) and complementizers. Therefore, this section will be primarily concerned with giving a sketch of כי's non-adverbial uses, which emerged in parallel to its adverbial uses, all deriving from its earlier prepositional use.

9.2.1   Complementizer

The use of כי as a complementizer occurs 211 times in my corpus (≈20% of all uses), and is the second most frequent use after causal כי.[358] In this function, כי may serve as the compliment of a verb-phrase (133) or a noun-phrase (134), the first of which far outnumber the latter.[359] Its high frequency of occurrence throughout the corpus, unambiguous cases, and the variety of elements for which it may serve as a complement all argue for the thorough

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[358] Compare the reported 14.3% by Bandstra (1982:410), 18% by Follingstad (2001:413), and 22% by Conklin (2011:50) in his study of כי in 1 Samuel. Cases in my corpus are found at **Gen** 1:4, 10, 12, 18, 21, 25; 3:1, 5(2), 6(1-2), 7, 11; 4:23; 6:2, 5, 6, 7(2); 8:11; 12:11, 14, 18; 13:10; 14:14; 15:8, 13; 16:4, 5; 20:6, 7(2); 21:30(2); 22:12(2), 16, 17; 24:14; 26:13, 28; 27:36; 28:6, 8; 29:12(1-2), 15, 31, 33(2); 30:1, 9; 31:5, 6, 20, 22, 32, 35(1); 32:26; 33:13; 34:5; 37:4; 38:9, 14(2), 16(2); 39:3, 13, 15; 40:16; 41:21, 49(1); 42:1, 2, 16, 23(1), 33, 34(1-2); 43:7, 25(2); 44:15, 27, 31; 45:5(1), 12, 26(1); 46:30; 47:18; 48:17; 49:10, 15(1-2); 50:15; **Lev** 23:43; **Ezek** 2:5(2); 5:13; 6:7, 10, 13, 14; 7:4(2), 9, 27; 10:20; 11:10, 12; 12:15, 16, 20; 13:9, 14, 21, 23; 14:8, 21(2), 23(2); 15:5, 7; 16:62; 17:21, 24; 18:11; 19:5; 20:12, 20, 38, 42, 44; 21:4, 10, 12(2); 22:16, 22; 23:13, 49; 24:19, 24, 27; 25:5, 7, 11, 17; 26:6; 28:22, 23, 24, 26; 29:6, 9, 16, 21; 30:8, 19, 25, 26; 32:15; 33:29, 33; 34:27, 30; 35:4, 6, 9, 12, 15; 36:11, 23, 36, 38; 37:6, 13, 14, 28; 38:23; 39:6, 7, 22, 23, 28; **Ps** 4:4; 20:7; 22:32; 34:9; 37:13(2); 41:12(1); **1 Chron** 10:5, 7(1-2); 13:11; 14:2(1-2), 8; 18:9; 19:6, 10, 15, 16, 19; 21:18, 28; 29:17; **2 Chron** 6:8, 18(2), 33; 12:7; 13:5; 15:9(2); 18:13, 32; 20:29; 22:10; 24:11; 25:16(1); 26:15(2); 32:2, 15(2); 33:13.

[359] See Bandstra (1982:97–110, 411) for a detailed syntactical description of these subcategories. Compare Miller (2003:97–116) who, in addition to data from the Hebrew Bible, also presents uses from epigraphic Hebrew. Bandstra (1982:107–109) also discusses several cases where כי functions simultaneously as a verb phrase compliment and a noun phrase compliment in Ps 56:10 and 62:12 (ibid:). Schoors (1981:256) suggests that noun phrase complementation should be considered an extension of verb phrase complementation.

semanticization of this usage.[360] In light of these traits, it would be very difficult indeed to successfully argue that complementizer כי fails the test of semantic uniqueness.[361] Apart from expected cases of ambiguity, this use is distinguished from others within כי's polysemy by several syntactic constraints. The main syntactic distinctives of complementizer כי are that it occurs after the main clause verb and, when functioning as a verb-phrase complementizer, functions as the direct object of verbs of cognition or speech.[362] The function of כי as a verb phrase complement, as in (133), occurs especially with ראה and ידע (Bandstra 1982:103).[363] As a noun phrase compliment, כי may have a noun, pronoun, or particle as its antecedent.[364] I will take up this third group when I discuss collocations with complementizer כי in section 9.2.1.2. Additionally, it may function as the subject of the clause without an antecedent (135).[365]

(133)   Ezek 6:7b

| וִידַעְתֶּם כִּי־אֲנִי יְהוָה: | And you will know that I am the Lord. |

(134)   Gen 21:30 (2)

| וַיֹּאמֶר כִּי אֶת־שֶׁבַע כְּבָשֹׂת תִּקַּח מִיָּדִי בַּעֲבוּר תִּהְיֶה־לִּי לְעֵדָה כִּי חָפַרְתִּי אֶת־הַבְּאֵר הַזֹּאת: | And he said, "Because these[366] seven ewe-lambs you will take from my hand so that it will be a witness for me that I dug this well." |

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[360] Compare Follingstad's (2001:154) observation that complementizer כי exhibits a far greater syntactic diversity when compared to the complementizer function of אשר. This too supports seeing it as having a relatively high degree of semanticization in this usage. However, this function of כי does eventually begin to lose ground to אשר, which gradually takes over this function in later Hebrew (see Givón 1974:14–17; Bandstra 1982:117–118; Miller 2003:98).

[361] Aejmelaeus (1993:174) calls this "the most unambiguous among כי clauses that follow their main clause."

[362] A possible exception to appearing before the main clause verb seems to be the הכי construction, discussed further below under collocations with complementizer כי.

[363] For a list of other cognition verbs with which complementizer כי is found and their frequencies, see Bandstra (1982:412). See Conklin (2011:47–48) for a list of cognition verbs used with כי in 1 Sam. Note that in some cases, complementizer כי is used in addition to a nominal direct object, as in Gen 1:4, "And God saw the light, that it was good" (cf. Bandstra 1982:106). This is equivalent to the parallel uses without such a nominal direct object (Gen 1:10, 12, 18, 25). Givón (1991:276) glosses Gen 1:4 as having two coordinated direct objects: "And God saw the light, (and) that it was good." On the suggestion to translate כי in these verses adverbially along the lines "how good," see Schoors (1981:273–275). See especially Bandstra (1982:112–116) where he describes the discourse function of this formulaic usage within the creation account.

[364] Bandstra (1982:98–99). The "particle" antecedent may be any one of various grammatical words, especially prepositions.

[365] Cf. Aejmelaeus (1993:175). Bandstra (1982:101–102) categorizes this usage as a noun phrase compliment with no antecedent, citing 2 Sam 18:3; Ps 119:71; Lam 3:27. Conklin (2011:48) also mentions 1 Sam 12:5.

[366] The previous verse, Abimelech has just asked Abraham the meaning of the seven ewe-lambs. This near demonstrative is added to approximate the focal status of the fronted phrase אֶת־שֶׁבַע כְּבָשֹׂת in Abraham's answer (cf. Runge & Westbury 2012–2014.

(135)   Gen 45:5b

<div dir="rtl">

וְעַתָּה׀ אַל־תֵּעָצְבוּ וְאַל־יִחַר֙ בְּעֵינֵיכֶ֔ם כִּי־מְכַרְתֶּ֥ם אֹתִ֖י הֵ֑נָּה

</div>

And now, do not be worried and do not let it burn in your eyes that you sold me here.

Concerning the putative כי recitativum used to introduce direct speech, I am in agreement with Meier (1992:20) who notes that potential cases are both extremely rare and easily accommodated by clearer uses.[367] This certainly holds true for the tokens of כי within my corpus, which do not yield any clear cases of such a usage that commend themselves better than established readings. Note, for instance, the first כי in Gen 21:30 presented in example (134) above. This is an often-cited example for a putative case of כי *recitativum*. However, this seems to be better taken as a case of content-volitional causal כי in answering a question (discussed in sections 8.1.4.1 and 8.2.2.2).[368] This is in agreement with Miller's (2003:103–116) analysis which concludes that כי at the boundary of a quotative frame should be taken as the first word of the quotation, rather than introducing it.[369] All things considered, Aejmelaeus' (1993:42) concession of the possible existence of כי *recitativum* is well-taken: "Since the substantival function of כי ('that') is very common, particularly after verbs of perception but also after other verbs that take object clauses, כי *recitativum* need not be judged as a rare peculiarity in Hebrew. A special kind of 'that,' it causes no strain on comprehensibility." However, the data does not appear to support its clear emergence, much less entrenchment, within the time-span of the Hebrew Bible.

9.2.1.1   Complementizer כי in oath formulas

A particularly significant category of complementizer usage is found in oath formulas. These have been the uses of כי presented as the surest cases of the putative emphatic or asseverative כי.[370] As noted by Conklin (2011:48), "…oaths remain the lone context in which this

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[367] Cf. Zorell (1933); Esh (1957); Schoors (1981:256–259); and Bandstra (1983:165–166). Schoors (1981:258–259) judges the evidence for כי recitativum to be so meager that he contends: "The *kî recitativum*, as a specific syntactic category, should be deleted from grammars and dictionaries."

[368] Other putative cases include Gen 20:1; 26:22; 29:32–35; 31:31; 37:35; Ex 1:19; 3:12; 22:29.

[369] She identifies cases where כי may function at the beginning of a quotation as temporal, adversative, but especially causal. Miller (2003:105–106) concludes: "When כי is understood as having these meanings, there is little reason to interpret the examples as *kî recitativum*."

[370] See references in chapter 2.

function is still deemed necessary. Were it not for oaths, there would be no reason to claim this function for the particle at all. Indeed, the asseverative function for a *k-* particle is not established with certainty in any Northwest Semitic language." Conklin's argument that such cases should be taken as complementizers rather than emphatic/asseverative uses commends itself as simultaneously simpler and more explanatory. Essentially, כי functions in oath formulas as the complementizer introducing the content of the oath. There are seven cases where it is the compliment of the verb of swearing, שבע as in example (136).[371] Conklin's major insight is that in the majority of the oath formulas, כי functions as the complementizer of an elided clause of swearing, as in example (137).

(136)   Gen 22:16–17[372]

¹⁶וַיֹּ֕אמֶר בִּ֥י נִשְׁבַּ֖עְתִּי נְאֻם־יְהוָ֑ה כִּ֗י יַ֚עַן אֲשֶׁ֤ר עָשִׂ֙יתָ֙ אֶת־הַדָּבָ֣ר הַזֶּ֔ה וְלֹ֥א חָשַׂ֖כְתָּ אֶת־בִּנְךָ֥ אֶת־יְחִידֶֽךָ׃a ¹⁷כִּֽי־בָרֵ֣ךְ אֲבָרֶכְךָ֗ וְהַרְבָּ֤ה אַרְבֶּה֙ אֶת־זַרְעֲךָ֙ כְּכוֹכְבֵ֣י הַשָּׁמַ֔יִם וְכַח֕וֹל אֲשֶׁ֖ר עַל־שְׂפַ֣ת הַיָּ֑ם וְיִרַ֣שׁ זַרְעֲךָ֔ אֵ֖ת שַׁ֥עַר אֹיְבָֽיו׃	¹⁶And he said, "By myself I hereby swear," declares Yahweh, "that since you have done this thing and not withheld your only son, ¹⁷ that I will surely bless you and surely multiply your descendants as the stars of the heavens and as the sand that is on the sea shore, and your descendants will posses the gate of their enemies.

(137)   Gen 42:16[373]

שִׁלְח֨וּ מִכֶּ֣ם אֶחָד֮ וְיִקַּ֣ח אֶת־אֲחִיכֶם֒ וְאַתֶּם֙ הֵאָ֣סְר֔וּ וְיִבָּֽחֲנוּ֙ דִּבְרֵיכֶ֔ם הַֽאֱמֶ֖ת אִתְּכֶ֑ם וְאִם־לֹ֕א חֵ֣י פַרְעֹ֔ה כִּ֥י מְרַגְּלִ֖ים אַתֶּֽם׃	Send one from yourselves and he will get your brother, but you will be confined and your words will be tested according to your truthfulness. But if not, by the life of Pharaoh, (I swear) that spies are what you are.

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[371] In one case in the Hebrew Bible (1 Sam 12:5), כי functions as a complementizer to a noun phrase in a verbless clause that takes the place of the verb of swearing in the oath formula, "X is a witness" (Conklin (2011:51). This is an instance of the use of כי as a noun phrase complement as in (134) above, while the others are instances of its use as a verb phrase complement as in (133) above.

[372] Cf. 2 Sam 19:8; Isa 45:23; Jer 22:5, 49:13; 51:14; Amos 4:2.

[373] In my corpus, also see Ezek 35:6 and 2 Chr 18:13. Compare Num 14:21–23; 1 Sam 14:39; 20:3, 12, 13; 25:34; 26:10, 16; 29:6; 14:44; 2 Sam 2:27; 3:9, 35; 4:9–10; 12:5; 15:21; 1 Kgs 1:13, 17, 29, 30; 2:23, 24; 18:15; 19:2; 22:14; 2 Kgs 3:14, 5:20; Isa 49:18; Jer 22:24, 46:18; Zeph 2:9; Job 27:2–4; Ruth 1:17; Lach 6:12–13; 12:3.

In cases like those in Gen 22:16–17 in example (136), כי is most naturally taken as the complement of שבע. In that specific case, there are actually two complementizer כיs. The first compliment כי introduces the יען אשר causal clause (cf. Bandstra 1982:138), which grounds the content of the oath. Then, to unambiguously mark the rest of the text as the core of the oath's content, a second complementizer כי is used to resume the interruption from the causal clause.[374]

However, due to the highly elliptical nature of oath formulas, there are many more cases where the verb of swearing is omitted, as with Gen 42:16 in example (137) (Conklin 2011:50). The parallel between the two types is especially clear with these examples. Each opens with what Conklin calls an authenticating element—"by myself" (i.e. "by Yahweh" cf. Jer 5:2) and "by the life of Pharaoh," respectively. The fundamental difference is that the second type illustrated with Gen 42:16 represents an abbreviated form of the rest by omitting the verb of swearing. It is precisely these contexts which have been put forth as the surest cases of asseverative כי, since the elision of the verb of swearing obscures כי's function as complementizer. However, simply recognizing the elliptical nature of such cases of the oath formula provides the simplest answer to how כי is functioning—as a complementizer.[375]

9.2.1.2   Collocations with complementizer כי

Complementizer כי is also found occurring with various prepositions and particles.[376] When immediately following a preposition, complementizer כי allows the preposition to govern a

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[374] Conklin (2011:53–54) suggests that the second כי be taken as the apodosis of a compound sentence (cf. Bandstra 1982:142). This seems to be a less preferable analysis since the status of כי as an apodosis marker is already only tentative (see section 9.1.2.6), and a resumptive complementizer seems to provide a simpler explanation. Conklin (2011:52) even calls these "resumptive *ky*." The need for a disambiguating marker of such resumption seems especially clear in 2 Sam 15:21 where the core content of the oath is interrupted by three clauses headed by אם. However, it is tempting to hypothesize that it is precisely in such contexts that complementizer כי (already typologically linked to apodosis markers as mentioned in section 9.1.2.6) may be reanalyzed as an apodosis marker.

[375] Park (2016) argues that in such cases, complementizer כי has grammaticalized into a marker of assertive, interrogative, or mirative stance, citing Yap *et al.* (2011a). However, while perhaps typologically possible, the less exotic character of Conklin's argument that it is a use of complementizer כי makes it seem more likely. Furthermore, such a development has only been established as a prevalent feature of Tibeto-Burman languages (Yap *et al.* 2011b:7, 6). A reason this may be characteristic of Tibeto-Burman languages is the fact that they employ sentence final particles which facilitate reanalysis as stand-alone nominalizing stance markers (Yap *et al.* 2011b:40–41). Of course, כי does not enjoy this facilitating feature, making it less likely to undergo such reanalysis. Park (2016:59–60 fn. 59) appears to reject Conklin's (2011) analysis of כי as the complement of an elided שבע because she claims that such formulas do not occur with this verb. Yet, Gen 22:16–17 in example (136) above is a case of this very thing.

[376] Collocations related to the other functions of כי have already been discussed at various points above. The more unitized string כי-על-כן was discussed in section 8.1.1 in association with speech-act causal כי. In section 8.1.4.1, I discussed the use of causal כי with more loosely connected collocates, such as when it follows (at varying distances) מה, אמר, or על-כן. I discussed the use of והיה/ויהי with temporal כי in section 9.1.1. Concessive conditional גם כי was

clause by nominalizing it. In treating forms that connect sentences, Gesenius (1910:§104.b) also lists "Prepositions, which with the addition of the conjunction אֲשֶׁר or כִּי together form one single conjunction" (cf. Bandstra 1982:100–101; Bliboim 2013:407–408).[377] The only one of these in my corpus is עד כי, expressing a temporal *terminus ad quem* ("until") relationship.[378] Additionally, Gesenius (1910:§104.b) lists עקב כי expressing cause.[379] Bandstra (1982:100) further lists אפס כי expressing some sort of contrast or what HALOT terms a "limitive" sense (i.e. "notwithstanding"). Gesenius (1910:§163.c) glosses it "except that."[380] BDB adds to these על כי and תחת כי, both expressing cause.[381] There are also cases of יען כי used to express cause.[382]

When occurring after particles, complementizer כי acts as the subject of an equative clause where the particle is the predicate "which stands for a truncated noun phrase" (Bandstra 1982:100). In my corpus, this includes הכי, and אף כי.[383] The complementizer function of כי is transparent with הכי when understood with the gloss "(is it the case) that…? (cf. Joüon & Muraoka 2006:§161.j).[384] As for אף כי, there appears to be different meanings.[385] In Gen 3:1 it

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discussed in 9.1.2.2. Exceptive כי אם was discussed in section 9.1.2.4. The use of כי with לולא and אז/עתה was discussed in section 9.1.2.6.

[377] Prepositions being used with some nominalizer in order to be able to head clauses has been widely observed across languages. In fact, through metonymic extension, such prepositions have also been observed to develop into conjunctions (Traugott 1985:297, 301). Rather than positing a pleonastic interpretation (see Follingstad 2001:40–41 for such proposals), this better explains why עקב (e.g. Deut 8:20) and יען (e.g. 1 Kgs 3:19) can sometimes head clauses even without כי.

[378] See Gen 26:13; 41:49(1); 49:10; 2 Chron 26:15(2).

[379] See, for example, 2 Sam 12:10, "And now, the sword will never depart from your house because of (the fact) that you have despised me and have taken the wife of Uriah the Hittite to be your wife" (cf. Amos 4:2).

[380] See, for example, Num13:28, "But it is (the case) that strong are the people dwelling in the land" (cf. Deut 15:4l Judg 4:9; 2 Sam 12:14; Amos 9:8).

[381] For על כי, see for example Judg 3:12, "And Yahweh strengthened Eglon, king of Moab against Israel because of (the fact) that they had done evil in the eyes of Yahweh (cf. Deut 31:17; Mal 2:14; Ps 139:14). For תחת כי, see for example Prov 1:29, "Because of (the fact) that they hated knowledge and the fear of Yahweh they did not choose." See Rodriguez (2017:210–211, 218, 250–251) on this use of תחת כי and how the spatial idea "under" can be extended to have a causal meaning.

[382] See Num 11:20, "because of (the fact) that you have rejected Yahweh" (cf. 1 Kgs 13:21; 21:9; Isa 3:16; 7:5; 8:6; 29:13). For a comprehensive study of יען in the Hebrew Bible, see Gowan (1971).

[383] The occurrence of וכי in 1 Chron 29:14(1) is perplexing. The usual uses of כי with ו affixed before it do not appear to fit (e.g. conditional). Every translation I have consulted does not seem to recognize any contribution of כי here, and simply translate it "but," presumably for the ו (e.g. NASB, ESV, NET, NIV, NLT) or omit it all together (e.g. LXX, Vulg, CEB, NCV). Note that in Rabbinic Hebrew, וכי (מֶה/הֲיָאך) is regularly used as an interrogative that expects a negative response (Pérez Fernández 1997:193). In light of this, וכי could be understood as ו with complementizer כי along the lines "and (is it) that…?" This seems to clearly be the case in Job 39:27 (cf. BDB:472). However, this does not seem to explain the presence of an explicit interrogative like מי in certain uses (including 1 Chron 29:14). Interrogative וכי has continued in formal speech and writing in Modern Hebrew and is interchangeable with האם (Glinert 1989:271). It is intriguing to see in this interchangeability a possible connection between וכי and its conditional use.

[384] This occurs in my corpus at Gen 27:36; 29:15. Note that some take the הכי in Gen 27:36 as the interrogative prefixed to causal כי and meaning, "Is it because…?" (e.g. Hamilton 1995:224 fn. 10). However, this can just as

appears to mean something like "(Is it) even/really (the case) that…?"[386] However, in most cases it seems to have become unitized into a less decompositional expression meaning "how much more" when following a positive statement and "how much less" when following a negative.[387] This seems to have developed from the more compositional "also that…"[388] That is, a lesser statement is first given and then אף כי introduces an additional corresponding statement that is semantically or rhetorically greater.[389] Through metonymic extension and increased frequency, this then became increasingly associated with אף כי itself.[390] Thus, "also that…" may have developed into "how much more/less…"[391] Finally, on the origin of complementizer כי, see section 9.3 below where I suggest an originally prepositional use.

9.2.2   Discourse Marker

Another non-adverbial use of כי identified in my corpus is that of a discourse marker. This linguistic category has already been described in section 6.3.1 and the process by which it appears to have emerged from causal כי (especially in its metalinguistic usage) has been presented at the end of section 9.1.2.1. There, it was proposed that the more subjective, schematic, and loosely connected causal relations marked by כי facilitated its reanalysis as an intersubjective discourse marker used to "hold the floor" and introduce continuation and/or elaboration. In line with the basic definition of discourse markers presented above, rather than adding propositional content, discourse marker כי appears to do the metatextual work of relating larger portions of text (i.e. sentence level and above) in unfolding discourse, specifically as a

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easily be read with complementizer כי along the lines, "(Is it the case) that…?" Compare Joüon & Muraoka (2006:161.j) for another non-causal interpretation. Outside my corpus, see for example 2 Sam 9:1; 23:19; Job 6:22. In 2 Sam 13:28 we find הלא כי, "(is it) not (the case) that…?", which makes the function of כי as a complementizer even more clear.

[385] See Van der Merwe (2009b) for an analysis of אף vis-à-vis גם, as well as an empirically based linguistic classification of אף and guidelines for when a particular use is intended in a given text.

[386] Cf. Van der Merwe (2009b:275 fn. 40 and 281 fn. 66). Also see Calvin's (1948:146–147) comments on this construction in Gen 3:1 where writes: "More correct is the explanation of the Chaldean paraphrast, 'Is it true that God has forbidden?' &c." Compare Ximenes' Complutensian Polyglot, which Calvin may have drawn on here (Haroutunian & Smith 1958:18). Also see Calvin (1846:4.86) where he offers the French gloss "*Est-ce pour vrai*?" which we may presumably take as "Is it for real *that*…?" Keil & Delitzsch ([1866-91] 1996:1.59) agree and offer the gloss "Is it really the fact that…?" In Ezek 23:40 it seems to be used with complementizer כי and mean "also that…" However, in Neh 9:17 it seems to be used with temporal כי and mean "also/even, when…"

[387] In my corpus, see Ezek 14:21(2) given in example (138) below; 15:5; 2 Chron 6:18(2); 32:15.

[388] Cf. Green (1888:§241).

[389] This is one form of a *qal wahomer* argument (cf. Kaddari 1997:89).

[390] Cf. Van der Merwe (2009b:269–270) who also suggests the unitization of this collocation as a fixed expression.

[391] Outside my corpus, Bandstra (1982:100–101) further lists אם לא כי (e.g. Deut 32:30, "If it were not that their rock sold them."), אָנָּה…כי (e.g. Ps 116:16, "It is true, O Lord, that I am your servant."); אָמְנָם כי (e.g. Job 12:2, "It is true that you are the people."), and אוֹיָה …כי (Ps 120:5, "Woe is me that I live in Meshech.").

marker of continuation or elaboration. I have identified at least 17 cases (nearly 2%) of כי in my corpus that fit the linguistic profile of such a discourse marker usage.[392] While examples such as (138) discussed below seem to fulfill the semantic uniqueness criteria for distinguishing between pragmatic and semantic polysemies, the low frequency of this use renders its level of entrenchment (and therefore prototypicality) quite low within the overall usage profile of כי. There are several notable features of these uses that both distinguish it from others and commend its categorization as a discourse marker. Their distribution in my corpus is confined to relatively later portions (Ezekiel, Psalms, and Chronicles), which would fit with the later stages of grammaticalization associated with the emergence of discourse markers. They are also found in oratorical/dialogical texts, which is where one would expect such intersubjective discourse markers to be most numerous.[393] Furthermore, there are several other conspiring textual features that seem to reinforce the analysis of כי as a discourse marker in these cases. Several cases of discourse causal כי occur with the formulaic כֹּה אָמַר אֲדֹנָי which segments longer discourses.[394] Additionally, as mentioned at the end of section 8.2.4, several uses of discourse marker כי occur with the *parasha petuḥa* (פ) or *setuma* (ס) marking a new section.[395]

A representative example of discourse marker כי that illustrates these various traits is the first כי in Ezek 14:21 given in example (138) below.[396]

(138)   Ezek 14:21

כִּי֩ כֹ֨ה אָמַ֜ר אֲדֹנָ֣י יְהֹוִ֗ה אַ֣ף כִּֽי־אַרְבַּ֣עַת שְׁפָטַ֣י ׀ הָרָעִ֡ים חֶ֠רֶב וְרָעָ֞ב וְחַיָּ֤ה רָעָה֙ וָדֶ֔בֶר שִׁלַּ֖חְתִּי אֶל־יְרוּשָׁלָ֑͏ִם לְהַכְרִ֥ית מִמֶּ֖נָּה אָדָ֥ם וּבְהֵמָֽה׃	For thus saith the Lord Yahweh, "How much more when I have sent my four calamitous judgments (sword, and famine, and wild beast, and pestilence) to Jerusalem to cut off from it man and beast.

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[392] **Ezek** 5:6; 7:13(1); 14:21(1); 16:59; 23:28, 46; 25:6; 26:7, 19; 29:13; 32:11; 34:11; **Ps** 37:22; 38:5; **1 Chron** 22:9; 23:27; 28:4.

[393] The least oratorical/dialogical text where I propose a discourse marker use of כי is 1 Chron 23:27, since such a use seems to make the best sense. There it is used by the narrator to pick up the narration after the interruption of a quote from David. The fact that it comes from the narrator fits with the use of an intersubjective discourse marker to structure the communication between speaker and audience, in this case with a marker of continuing discourse.

[394] See Ezek 14:21; 16:59; 23:28; 25:6; 26:7; 26:19; 34:11. Cf. Isa 21:16; 30:15; 52:4; Amos 5:3.

[395] In my corpus, this only occurs in Ezekiel at 14:21; 16:59; 23:28, 46; 25:6; 26:7, 19; 29:13; 32:11; 34:11. Lev 25:24 has a *parasha setuma* followed by a conditional כי as part of casuistic law.

[396] The LXX does not translate כי, but only has the familiar τάδε λέγει formula corresponding to כה אמר. The Vulgate has the causal *Quoniam*. As for modern translations, the more literal tend to use "for" (e.g. KJV, NASB, ESV) while the more dynamic tend to simply omit it (e.g. GNB, NCV, NLT, CEB).

271

The fact that כי is marking continuing discourse in this text is highlighted by the fact that it is preceded by the *parasha petuḥa* (פ) and introduces the formulaic "thus saith the Lord." These features do not constitute a complete shift of topic, but the continuation or elaboration of a current topic (Hoffman 1977). As explained by Block (1997:450), "kî before the citation formula serves the double rhetorical function of drawing attention to the climax of the oracle and signaling the transition from the theoretical phase to the practical application." In addition to these, the כי in Ezek 14:21 also introduces the second part of a *qal wahomer* (i.e. X, how much more Y) statement, introduced by אף כי (see section 9.2.1.2). This necessarily makes it a continuation of the preceding text. All of these converging characteristics make clear that the text introduced by כי is a continuation and elaboration of the previous discourse segment. Furthermore, in addition to having scope over larger segments of text, the כי here is not required for the grammaticality of the utterance and does not add to its propositional content, the distinguishing hallmarks of discourse markers.

It is noteworthy that most of these uses in my corpus are found in Ezekiel. The oratorical nature of this particular text makes it unsurprising that it contains most of the clear cases of discourse marker כי in my corpus. For example, Kim (2013:113–115) observes that Ezekiel is an early adopter of later innovations and is closer to vernacular Hebrew style (although still written).[397] Additionally, Boadt (1992:719) notes that, while certainly a well-crafted and polished product, "the combination of strong formulaic language for attracting and persuading an audience and the regular use of symbolic actions that accompany oracular speech suggest the opposite, namely that most of the oracles of judgment, at least, were forged in an oral setting."[398] This polemical nature of Ezekiel's oration also fits with Aejmelaeus' (1993:181) description of כי in argumentative texts as an "argumentative coordinator," an apt depiction of this particular type of discourse marker. In fact, such contexts may even invite the enriched interpretation of such

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[397] There, Kim also points out evidences of linguistic change "from below" (i.e. due to natural processes of language change, rather than conscious linguistic variation "from above"). This discourse marker use of כי appears to be another example of such a change "from below." Note, however, Rezetko & Young's (2014:240) objection that this confuses vernacular speech as apposed to literary speech. While that distinction must be maintained, the point stands that of different written genres, changes in vernacular will first show up in more "orally oriented" forms of writing. Compare Kim's (2013:154) observation that "the text type of narration is closer to the typical writing and that the text type of recorded speech is closer to the typical vernacular."

[398] Also see Floyd (1992:462–470) for an overview (and basic affirmation) of Gunkel's proposal that prophetical books like Ezekiel are to be taken as written compilations of originally oral speeches.

glosses as "in fact," "indeed," or "yes!" Such a schematic discourse marker of continuation, elaboration, or "argumentative coordination" would appear to be a natural development of a causal connective providing speech-act, epistemic, and especially metalinguistic justification for a previous utterance.

A benefit of this analysis as a discourse marker of continuation and elaboration is that it captures the insights of those scholars who have posited an emphatic/asseverative use of כי, but at the same time rests on linguistically firmer footing. For example, take the description offered by Muilenburg (1961:136), one of the main purveyors of asseverative כי, where he explains that it "points or shows the way forward. 'It may mean that something is now coming to which we must pay attention.' Since it is the *destiny* of words to lose their original dynamic associations and connotations—*libelli sua fata habent*!—it is not surprising that כי should be diluted…" (emphasis mine).[399] Indeed, recognizing such a usage as a last stage of a form's life (rather than as the wellspring from which all other uses derive, as so many proponents of emphatic כי suggest) fits quite well with the universally observed trends of language change proposed here. Furthermore, identifying such usage as a discourse marker of continuation or elaboration has the benefit of offering a cognitively motivated mechanism by which it may emerge (see section 9.1.2.1) and parallel crosslinguistic developments of similar words that have been empirically verified (see section 6.3.1).[400] Recognizing these uses as discourse markers may also (at least partially) explain why in some cases כי is separated from the text it governs by a disjunctive accent associated with intonational pause. This fits the linguistic profile of discourse markers, which are often separated from the text they introduce by such pausal intonation.[401]

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[399] The quote is of the old Latin proverb "Books have their fate."

[400] The support for emphatic/asseverative כ/כי from comparative study of other Semitic languages (especially Ugaritic) appears to have slowly evaporated under the scrutiny of subsequent scholarship, leading Conklin (2011:48), as quoted above, to conclude: "Indeed, the asseverative function for a *k*- particle is not established with certainty in any Northwest Semitic language" (cf. Bandstra 1982:33–42).

[401] Schleppegrell (1993:329) reports 30% of the time (cf. Couper-Kuhlen 1996:422). For example, see Ezek 23:46; 29:13; 32:11; 34:11 where כי is separated from the following material by the disjunctive *tvir*. Of course, there are also cases where discourse marker כי is connected to the following text with a conjunctive accent (e.g. Ezek 16:59; 23:28; 25:6; 26:7, 19). These, however, do not pose a challenge to this analysis or its explanatory power for those cases with a disjunctive accent, since, as Fanego (2010:207–210) points out in her study of elaborative discourse markers, there may be no overt difference between a sentence adverbial and a discourse marker either morphosyntactically or intonationally. And, given the fuzzy nature of language due to its constant state of dynamic change, this is expected.

When approaching discourse markers, the question of how it should be handled in translation naturally arises. Something more or less along the lines of what Aejmelaeus (1993:181) proposes in this regard seems best:

> The solution of the translators in the case of apparently superfluous particles is usually to omit them; also in cases where כי is claimed to be emphatic it is often not rendered at all. I regard it as more appropriate—at least the lesser evil of the two—to remain with the causal interpretation of כי, that is, causal in the broadest sense of the word—even where the logical connection is imperceptible—and to regard כי as a connective rather than an emphatic or asseverative particle.

In fact, in English at least, the studies cited in section 9.1.2.1 above show that the causal connective *because* has already developed such a discourse marker usage. Ironically, it seems that more dynamically oriented versions, which show the most resistance to rendering such uses in translation and often opt to omit them altogether, would actually be the most compelled by their own philosophy of translation to render them with the colloquial English discourse marker *because*. The glosses *in fact*, *indeed*, or *yes* may also be appropriate approximations of how כי functions in these instances as a marker of continuation or elaboration when the speaker "holds the floor" so to speak. These may even be appropriate renderings for instances of speech-act, epistemic, and metalinguistic כי that straddle the boundary between a clearly logical causal connective on the one hand and a more schematic discourse marker of continuation/elaboration on the other, especially in cases in which multiple כי's are used in succession that govern larger sections of text. Thus, the glosses *in fact*, *indeed*, or *yes* turn out in some cases to be quite suitable, although for different reasons than offered by proponents of putative emphatic or asseverative כי.

9.2.3 Relativizer

There are no uses in my corpus that I have analyzed as unambiguous relativizers. Gesenius & Tregelles (1846:391) seem to offer the best potential examples of a relativizer function for כי in my corpus, such as at Gen 3:19 which appears to line up with the syntax of the clearly relative אשר clause in Gen 3:23.[402] However, an at least equally plausible reading is a

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[402] Note that such a reading of Gen 3:23, if correct, would fulfill the description of relative clauses given by Bandstra (1982:116–117). That is, כי would function as an adjunct within the relative clause itself (what Bandstra calls a margin), only כי as the relativizer would be equivalent to its antecedent (אדמה), and the relative clause itself would be non-obligatory for the grammaticality of the main clause. Cf. Gen 4:25; Isa 54:6; 57:20. Gesenius & Tregelles

causal one. This appears to be the case for all proposed cases of relativizer כי (cf. Schoors 1981:276). Thus, while perhaps typologically plausible, with so few examples and no unambiguous uses, it is difficult to include this category within the usage profile of כי with any certainty.

9.2.4   Emphatic/Asseverative

As already described at various points throughout chapters 8 and 9, the number of viable cases where כי has a clearly asseverative use have been reduced further and further throughout the past several decades of Hebrew scholarship to the point of disappearance. For example, Bandstra (1982:25–61) was among the first to systematically show the lack of basis for such a use, correctly explaining constituent fronting before כי as a function of focus structure in discourse rather than a characteristic of a supposedly emphatic כי (e.g. in Gen 18:20) and showing that other readings are preferable or at least possible for asseverative כי proof texts. Claassen (1983) showed that a more nuanced understanding of causal כי revealed that it could easily accommodate cases presumed to be emphatic or asseverative, when understood in terms of speaker orientation (anticipating later work on subjectivity and mental space theory described through this study). Others followed, corroborating these findings and further reclaiming the little ground left on which an asseverative function might stand (e.g. Aejmelaeus [1986] 1993). The last major stronghold for a supposedly asseverative use was in oath formulas. While Bandstra (1982:45) had already contested these cases as necessarily asseverative, Conklin (2011) persuasively rebutted them. The present study has sought at several points to further demonstrate that a more careful understanding of כי leaves even less reason to recognize any so-called asseverative use. Specifically, much of chapter 8 has sought to show that when the more schematic causal relationships communicated by כי (e.g. non-content uses, especially metalinguistic) are fully appreciated, its compatibility with a variety of contexts previously thought to be problematic becomes apparent. Recourse to the ambiguous notion of emphasis is no longer needed. Finally, while potentially coinciding with the glosses like *yes* and *indeed*, section 9.2.2 presented a discourse marker use of כי as more linguistically justified analysis of additional cases commonly treated (especially in translations) as asseverative. This discourse

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(1846:391) also list as uncertain cases Deut 14:29 and Ps 90:4. From Qumran, DCH (386) cites 1QS 4:19; 1QH 8:13 as uncertain cases of relativizer כי.

marker use was observed to be most likely a later extension of the more schematic uses of causal כי, rather than an original use from which all others developed.

In light of these considerations, it seems that a major contributing factor to the acceptance of the putative asseverative use of כי is the fact that it is a one-size-fits-all solution to the more challenging cases of כי that did not seem to fit neatly into established categories (cf. Bandstra 1982:41; Conklin 2011:66). However, being equipped with more fine-grained categories and a better understanding of how they relate to traditionally recognized uses of כי allows us to propose more a linguistically justified analysis of such cases as described above. In light of this, it seems best to conclude with Conklin (2011:48–49): "…in the absence of corroborating data for this function of the particle, we may be on better footing by looking at the well-established functions of the particle."

9.3   Diachronic origin of כי

As observed by Aejmelaeus (1993:169), "It is generally agreed that the origin of כי is to be found in a non-connective deictic or demonstrative particle."[403] However, in light of the above discussion, an asseverative/emphatic usage does not appear to be a likely candidate for such a deictic origin. In addition to the fact that its very existence in any Northwest Semitic language is in question, the idea that such an abstract particle, already so empty of content, would develop such a rich tapestry of uses runs counter to the universal processes of grammaticalization discussed in chapter 6.[404] Indeed, such abstract semantic emptiness is characteristic of the latest stages of language change, not their beginnings. Of course, given the fact that we cannot directly observe the original source of כי, our proposals must be provisional. With that caveat in mind, I will now propose a potential diachronic origin for כי that appears to best account for both the observations of Semitic philology, as well as the huge amount of crosslinguistic and diachronic data which has become available in recent decades. Revisiting the question of origin after constructing a robust usage profile of כי in the Hebrew Bible is strategic, since it allows us to harness the heuristic value of the crosslinguistically pervasive grammaticalization paths and

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[403] See, for example, Gesenius (1910:§104), Joüon & Muraoka (2006:§164.b fn. 1), HALOT, Schoors (1981:242–243), and other references listed in chapter 2. Muilenburg (1961:136) goes so far as to assert that, "All the lexicons point to its original demonstrative character."

[404] Even more untenable is the idea that such a core use would continue to be present in all subsequent extensions. As Aejmelaeus (1993:169) rightly points out, "It is hardly probable that a conjunction, any more than a noun or a verb, should carry its etymology along in all of its several functions, although some scholars, particularly the ones supporting frequent application of the emphatic interpretation, seem to suppose so."

patterns of synchronic polysemy presented in chapter 6 which suggest the most typologically plausible source of כי. As I have already indicated at several points above in this chapter, an original comparative preposition nicely commends itself as the source of כי.

First of all, Semitists have long recognized the relationship between the conjunction כי and preposition כְּ in Hebrew, as well as the various *k*(v)- cognates in other Semitic languages. Concerning the relationship between Hebrew כי and כְּ, Gordis summarizes, "At all events, it is clear that *k* and *ki* are closely related to each other, it being possible that they are originally orthographic variants of the same particle."[405] Schoors (1981:242) is even more emphatic and concludes without qualification: "Hebrew *kî* is etymologically related to *k*ᵉ- and thus connected to the same preposition in other Semitic tongues, such as Ugaritic, Phoenician, Aramaic, Arabic (*ka*, *kamā*), Ethiopic (*kama*), Akkadian (*kī*, *kīma*, *kīam*)."[406] Givón (1991:272, 299) as well says כי most likely began as a preposition.[407] Follingstad (2001:16) also supports seeing the origin of כי as a preposition like כְּ. Andrason & Lyle (2015b:21) provide additional evidence for a prepositional origin of כי when, based on comparative data, they argue that the î in כי is the common Semitic morpheme employed to "make it possible to use a noun as equivalent to either an adpositional [e.g. prepositional] phrase or adverb." This morpheme appears to have facilitated the use of כי as a preposition earlier in its life.[408] Furthermore, as reported by Esseesy (2010:262),

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[405] Ugaritic may offer evidence for the idea that כי and כְּ were indeed at one point orthographic variants, since the only difference between the Ugaritic conjunction *k* and preposition *k* is that the former was used with a word divider, though not invariably (Schoors 1981:247, Bandstra 1982:33–34, Bordreuil & Pardee 2009:67). See Sivan (2001:221–224) for cases where each may be used to head conditional, temporal, object, and causal clauses. Akkadian also appears to provide similar evidence, since in addition to uses as a temporal connective, causal connective, and complementizer, Akkadian *ki* also functions as a preposition meaning "like" (Tawil 2009:160–161; cf. CAD 316b, 322a). While the adverbial connective and prepositional uses may be in the process of becoming more and more differentiated, it appears that they are not yet at that point. In any case, their isomorphic form in these other Semitic languages provides strong reason to believe that their cognates in Hebrew were at one time a single form that eventually diverged into two.

[406] See references in Schoors (1981:240–242) and HALOT. Cf. Klein (1987:275).

[407] However, Givón suggests a locative preposition (citing as evidence the meaning "from" or some "bleached" locative sense for Amharic *k*-). He also goes on to acknowledge its early comparative (i.e. modal) uses. However, this presents a difficulty with an originally locative prepositional use. As presented in Figure 6.4 above, the typologically most attested paths do not include a connection between modal and locative semantic spaces. Thus, given the clear modal (i.e. comparative) value of כי at some point in its past (as made clear by its obvious relationship to the more fossilized preposition כְּ), it is more probable that it was this modal function that first developed into a modal adverbial connective, from which there are clear and typologically well-attested paths to its temporal and CCC uses, and from a modal preposition into a complementizer.

[408] The fact that the prepositional affix כְּ does not have this morpheme does not pose a problem to this hypothesis, since it could be easily explained by the universal process of phonological reduction over time. Furthermore, such a phonological difference would be advantageous for distinguishing it from כי as they continued to diverge. Compare the development of Old English *eal(l)swa* into both Present Day English *also* and the further reduced form *as*. The

"In Semitic languages, evolution of prepositional forms to serve conjunction and adverbial subordinating functions has also been quite common."[409] Unfortunately, "…detailed examination of the evolution from prepositional to subordination functions has escaped scholarly attention" (ibid). This lack of attention is compounded for כי, since its original prepositional use is no longer directly observable.[410] However, the grammaticalization paths with the strongest cognitive motivation, and therefore the most crosslinguistic pervasiveness, appear to corroborate the proposal of those Hebraists who have proposed a modal prepositional function like כְּ as the ancestor of כי in the Hebrew Bible.

Preposition > complementizer, adverbial connective: Recalling the discussion in section 6.3, the above reconstruction fits quite well with the most crosslinguistically typical paths of language development. That is, according to the paths connecting the various category continua in Figure 6.3, an original preposition would be an ideal source for the parallel developments of complementizer כי on the one hand, and its various uses as an adverbial connective on the other.[411] More specifically in regard to the emergence of adverbial connective functions, as depicted in Figures 6.4 and 6.5, it is the modal semantic space which best commends itself as the entry point of כי's prepositional ancestor into the adverbial subordinator category. That is, the comparative preposition meaning "like, as" developed into a comparative adverbial subordinator meaning "in this way, manner."[412] This then accounts for the temporal use of כי, since it is the modal semantic space from which temporals typically develop. Other reconstructions (e.g. Givon's above-mentioned proposal of a locative preposition as the source) would leave the temporal use orphaned without a source domain. This path is further supported by the fact that, as shown in Figure 6.4, the temporal relations are the prototypical source domain for CCC relations. This is the very path proposed by Deutscher (2000:37–40) for the development of Akkadian *kīma* as originally a comparative preposition, from which temporal and causal senses later developed. Deutscher (2000:54–57) also argues that the comparative meaning of *kīma*

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point is that the same source may have parallel developments with different degrees of phonological reduction as they continue to diverge from one another.

[409] Esseesy (2010:262) cites evidence from Aramaic, Modern Hebrew, South Arabian languages, Lebanese, and Modern Standard Arabic.

[410] HALOT does list some textually problematic cases where כי supposedly has a modal "as" function (Isa 55:9; Ps 103:11; Eccl 7:6). Also see 2 Chron 22:6 where כי seems to mean "because of," though the מן variant noted in the BHS may be a better reading here. Cf. Jastrow (1903:630) who lists prepositional uses in the Talmud.

[411] Recall from chapter 6 that a single source can develop into multiple world classes (Heine 2003:590).

[412] Compare these use of Akkadian *ki* (CAD 319, 322) and *kiam* (ibid 326).

developed a complementizer function with certain verbs.[413] Thus, for the above reasons—converging evidence from the usage profile of כי in the Hebrew Bible, comparison with Semitic cognates, and crosslinguistically pervasive grammaticalization paths—I suggest that the most likely source of כי was as a modal preposition of comparison.[414]

9.4   A dynamic definition of כי

We are now in a position to offer a comprehensive and dynamic definition of כי. This will show the organization of its polysemy and polyfunctionality, both qualitatively in terms of the various functions that it has developed in its usage profile and quantitatively in terms of the prototypicality of those functions based on their entrenchment as indicated by contextual frequency.

To that end, the above analysis yields the radial network of uses presented below in Figure 9.1. The bolded lines represent primary paths of development. The unbolded lines represent typologically plausible secondary paths that may have possibly converged with the primary paths in the emergence of a given use. The grey portions of this network represent those uses and developments that are no longer extant and therefore are not directly observable. Specifically, while it seems to be the case based on comparative and typological evidence that כי began as a nominal form and then developed into a preposition, כי no longer had these functions in the Hebrew Bible. Furthermore, despite the evidence that its earlier prepositional form underwent parallel developments into a complementizer and adverbial connective (specifically of manner which then extended into its temporal uses), the seams of this development are not directly observable either. Nevertheless, this reconstruction, based on the usage profile of כי as it best lines up with crosslinguistically pervasive grammaticalization paths, suggests a principled way in which the observable functions of כי may be organized relative to each other.

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[413] However, he also argues that the main source of the complementizer function is its causal use (Deutscher 2000:41–54; cf. 2006; 2011).

[414] Before this, it was most likely a noun (Bortone 2010:93–105; Gesenius 1910:297). Klein (1987:268) suggests that the preposition כְּ probably originated as a noun "meaning 'the likeness of, the like of.'" For an example of the processes by which words develop from nouns to prepositions and then to conjunctions in Hebrew, see the detailed studies by Andrason & Lyle (2015a; 2015b) on בְּלִי.

Figure 9.1 Organization of כי's polyfunctionality and polysemy[415]

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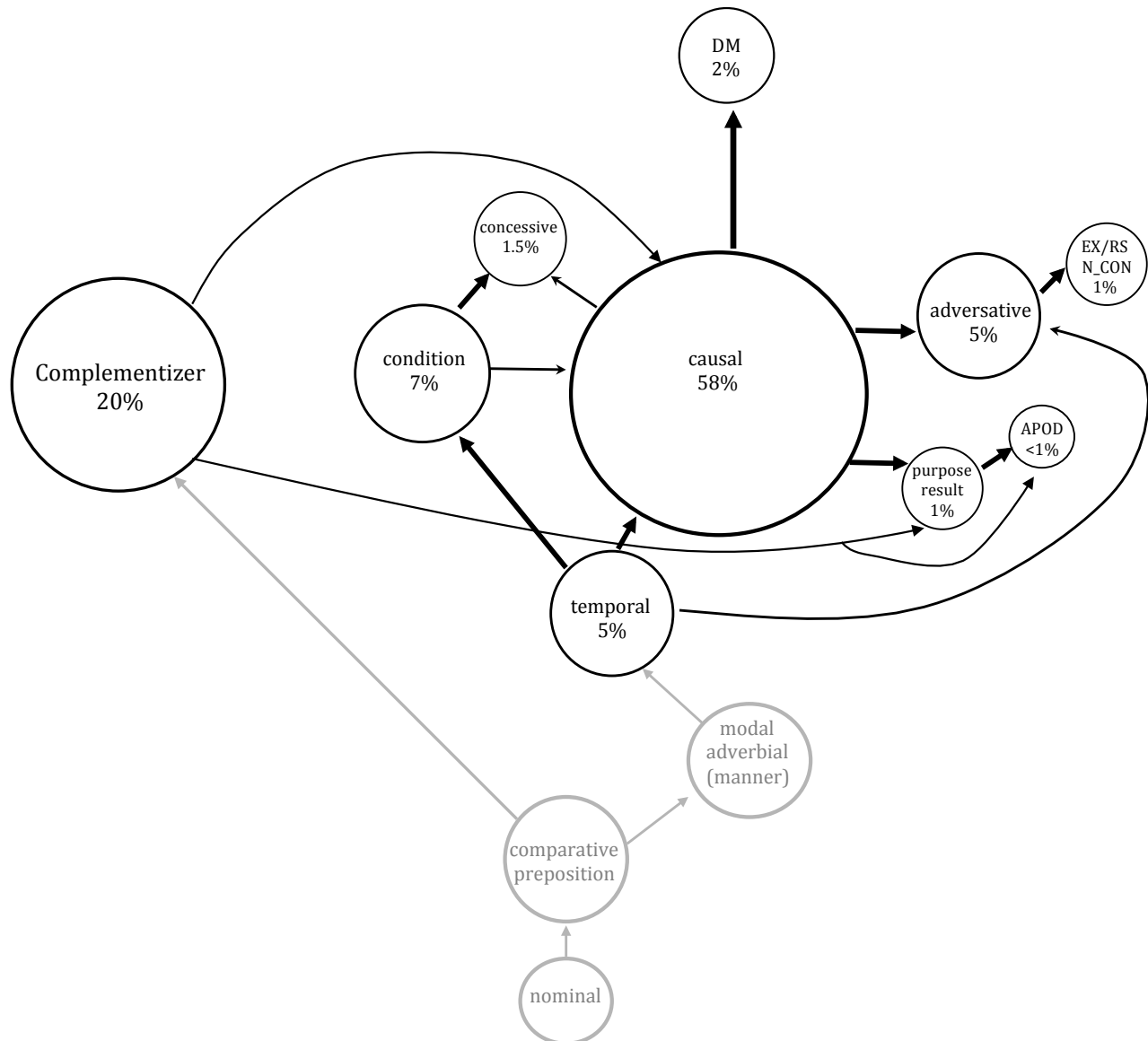
[415] Note that EX = exceptive, RS = restrictive (i.e. "only"), N_CON = negative condition (i.e. "unless"), apod = conditional apodosis marker, DM = discourse marker. Also note that percentages do not add up to exactly 100%, due to rounding. For convenience of comparison, each use and the various paths connecting it to others are discussed in the following sections: Adverbial uses of כי discussed in section 9.1 include temporal (9.1.1), causal (9.1.2.1), conditional (9.1.2.2), concessive (9.1.2.3), adversative (9.1.2.4), purpose/result (9.1.2.5), conditional apodosis marker (9.1.2.6). Non-adverbial uses discussed in section 9.2 include that of a complementizer (9.2.1) and discourse marker (9.2.2). Uses not deemed to have sufficient warrant for inclusion include uses as a relativizer (9.2.3) and emphatic/asseverative (9.2.4). Finally, the diachronic origins of כי represented by the gray portions of this network are discussed in section 9.3.

The directional lines present the qualitative organization of the functions within כי's usage profile. That is, they show the conceptual relationship between the various uses, both in terms of synchronic polysemy and diachronic development. As discussed in section 9.1.1, there is ample evidence of conceptual and diachronic seams pointing to temporal כי as the prototypical source domain for the various CCC adverbial relations (cause, condition, concession, etc.). Section 9.1.2 then presented the complex developments among the various CCC relations responsible for the extreme polysemy exemplified by כי throughout the Hebrew Bible. From within that network, causal כי was presented as the most likely source for the development of what I identified as the use of כי as a discourse marker of continuation or elaboration (sections 9.1.2.1 and 9.2.2). Furthermore, complementizer כי, while not replacing the explanatory power of the temporal use for the development of CCC adverbial relations, was observed to potentially contribute converging pressure toward the development of causal, purpose, and conditional apodosis marker כי.

Quantitatively, these uses are organized according to prototypicality as indicated by frequency. While not to scale, the size of the circles for each use indicates their frequency relative to other uses. As cautioned in sections 6.1.4 and 7.3, the frequencies presented here must be considered in light of the relative restriction or ubiquity of these uses across possible contexts, which was noted through chapters 8 and 9. However, what is certainly clear is that its causal use is by far the most frequent in present corpus. Furthermore, as described in chapter 8, causal כי has not only a high absolute frequency, but also contextual frequency, having the least contextual restriction of any other use. It is noteworthy that of all uses, causal כי appears to have the most potential synchronically contemporaneous sources (temporal, conditional, complementizer). In addition to the fact that the CCC network of semantic relationships is crosslinguistically the prototypical goal network for the development of adverbial connectives, the fact that כי's synchronic profile contains more sources for the development of causal כי than other uses further explains its prototypicality. Of course, even the causal node in this radial network can be zoomed in on to reveal its own internal complexity (as presented in section 8.3). Other adverbial uses have relatively low frequencies, and therefore correspondingly low prototypicality. The second most entrenched use of כי in my corpus is as a complementizer, which makes up approximately 20% of all uses. As for the third major word class, only about 2% of cases are what I have

identified as a discourse marker usage. As for putative emphatic/asseverative uses and uses as a relativizer, at least from the data in my corpus, there was not enough evidence to warrant their inclusion in כי's usage profile. It was noteworthy, however, that the more linguistically justified discourse marker use had a clear similarity to the functional description given by advocates of so-called asseverative כי. In my judgment, however, the designation as discourse marker is not only more well-grounded, but also provides a clearer picture of its function in those texts where it is found. Furthermore, any notion of emphasis or asseveration that is present in those text would appear to be an as yet part of כי's pragmatic, rather than semantic, polysemy.

9.5   Chapter summary

This chapter has set out to present a dynamic definition of כי. While this is certainly more complex than the dictionary entries we are used to seeing, it is also certainly more realistic. As Givón (1991:298) cautions in his study on this very topic, "…our old reductionist habits, of seeking single causes to complex linguistic events, single explanations to linguistic phenomena, or—in diachrony—single pathways for linguistic change, are inadequate and often misleading… contrary to old reductionist propensities, diachronic grammatical change is often complex, multi-causal and interactive." Thus, rather than being a liability, the complexity of such a representation is commensurate with the characteristics of language. Furthermore, embracing this complexity actually turns out to be simpler in the long run, since it offers a thorough definition of such complex words without obscuring its coherence with atomistic taxonomies on the one hand, and without attempting the impossible task of reducing its meaning to some invariant and abstract core on the other. This is the result of the common sense approach of cognitive linguistics as described by Glynn (2010:2): "The model of language proposed by Cognitive Linguistics is so completely simple that it places the emphasis squarely on method and data. Rather than simplifying the object of study by carving off its complexities with hypothetical modules of language structure, it lands the linguist in the midst of a chaotic phenomenon that is the nature of all socially structured systems." Once again, it must be stressed that the various elements of this proposal are, of course, subject to addition, revision, or rejection based on further evidence and argumentation. What is being more firmly argued here is that something like this must be what accounts for the radical grammatical polysemy of כי, and indeed, any other polysemous and polyfunctional form.

10 Conclusion

The climb up and down the peaks and valleys of כי's complex topography has been arduous. But it is hoped that the vistas we have reached provide a more satisfying understanding of this enigmatic word and have made the journey worthwhile. In these last pages I will briefly recap the major sights we have seen along the way. This study has been structured to separate the theoretical foundation in Part Two from its application to my corpus in Part Three in order to facilitate comprehension. Presenting the theoretical model apart from its specific application to כי in the Hebrew Bible is also intended to make it more easily applicable to a wider set of grammatically polysemous words. However, in order to best synthesize the conclusions in this final chapter, I will refer back and forth between chapters in Part Two and the results of their application in Part Three.

We began in chapter 2 surveying the reports from previous explorers who have ventured into a study of כי in the Hebrew Bible. It was seen that past scholarship on כי is more or less generally united in most of the recognized uses of כי, such as its use as an adverbial connective (e.g. causal, temporal, conditional, concessive, adversative, etc.) and its use as a complementizer. However, it has been less clear how all the various uses of כי fit together in a coherent way. Additionally a principled approach for determining the importance of a given use relative to others in כי's overall profile has been lacking. This is because previous studies have tended toward either more atomistic taxonomies of uses without a thorough explanation of כי's functional diversity, or have tended toward extreme abstractions that flatten out its functional diversity. While there have been exceptions to these extremes, an explanation of כי's polysemy has remained lacking. Given this lacuna in past research, the relatively new access to vast amounts of untapped crosslinguistic data, and recently developed models that have proven extremely fruitful in explaining polysemy all call for a fresh look at כי as an example of grammatical polysemy *par excellence*.

We proceeded in Part Two where I drew together various insights from cognitively oriented approaches to languages which have proven explanatorily powerful for words like כי (both in terms of its complex use as a causal connective and its extreme polysemy and polyfunctionality) and can simultaneously account for its coherence and diversity without sacrificing one in favor of the other. I began in chapter 3 by laying the groundwork of several foundational concepts for the rest of the study. These included Sweetser's Domain Theory as a

starting point for identifying the various domains of a communicative event that can stand in (e.g. causal) relationship to one another (i.e. speech-act, epistemic, content, and metalinguistic). Next, I presented the notion of subjectivity, especially as a helpful model for understanding domains in terms of varying degrees of subjectivity—that is, the level of speaker involvement in each domain. I then present the concept of prototypicality that characterizes the organization of meaning in language. That is, linguistic items are not characterized by discrete and invariant meanings, but rather display family resemblance with conceptually similar meanings. Fauconnier's Mental Space Theory was presented as a way of understanding domains as spaces that are built, filled, and drawn into relationship with each other in the process of communication and the ability to blend spaces offered a helpful account of prototypicality effects and fuzzy boundaries between uses. With these fundamental tools in hand, we were ready to venture toward a model of causal connectives, their internal complexity, and in the case of כי, their extreme polysemy.

These foundational concepts were integrated in chapter 4 using the Basic Communicative Spaces model that provides a description of the semantics and pragmatics of connective words like כי that are used to build and navigate such mental space networks. There, I discussed the prototypical Basic Communicative Spaces Network configurations of causal connectives like כי that precisely described the construal operations that characterize speech-act, metalinguistic, epistemic, and content (volitional and nonvolitional) relationships. I then discussed how so-called "exceptional" uses can actually be understood as cognitively motivated pragmatic extensions that leverage elements of prototypical usage (e.g. free indirect speech).

Jumping ahead to the application of this in Part Three, these categories proved explanatorily powerful for a more thorough description of causal כי's internal complexity in section 8.1. There it was seen that use of causal כי spans the basic types of causal relationships, though as expected, according to different degrees of prototypicality. Causal כי was shown to be prototypically a subjective causal relation that had the greatest specialization for non-content domain uses (speech-act, metalinguistic, and epistemic). Among these, it was most often found in speech-act causal relations. Furthermore, the prototypical subjectivity of causal כי was also found to be pragmatically leveraged in free indirect discourse in order to blend narrator and character perspective and with what was called the maintain perspective strategy in order to blend speaker and interlocutor perspective. Such an analysis provided a more linguistically

justified categorization for the various meanings of causal כי, which previous research has struggled to describe, especially in its more schematic uses. Not only has this helped put its various causal relations in clearer view, it has also provided an alternative to a common course of action taken by Hebraists and translators when a difficult case is encountered—ignore כי or treat it as emphatic.

Continuing on in Part Two, chapter 5 discussed the relationship between the semantics of causal connectives and their syntactic characteristics. There I argued that the syntactic profile of causal connectives is motivated by its semantics in principled and predictable ways. Most broadly speaking, it was shown that connectives marking subjective (i.e. non-content) causal relations tend to motivate more independent clauses while connectives marking objective (i.e. content) causal relations tend to motivate more dependent clauses. The main criteria used for analyzing the syntactic profile of a BCC were integration phenomena, main clause phenomena, and the presence of one or more focal domains indicating discursive dependence or independence, respectively. These semantic and syntactic profiles were also discussed as they relate to clause order in the clausal complex (i.e. initial or final position) and the management of given and new information. Mental space building functions were seen to be a primary determiner of the position a connective clause would take in the clause complex. Space builders (e.g. temporal connectives), were seen to prefer initial position while space fillers (e.g. causal connectives) were seen to prefer final position (a crucial observation for providing a motivated account of the syntactic preferences distinguishing different adverbial uses of כי).

Jumping forward once again to the application of this in section 8.2 in Part Three, this syntactic profile of (causal) connectives also provided a principled answer to the conundrum of כי's status as a coordinate or subordinate conjunction. In short, causal כי falls at various points along a continuum with coordination and subordination at the poles. Specifically, there are four main syntactic cluster points at which כי falls on this continuum—coordination, modal subordination, free subordination, and bound subordination. Crucially, as expected, these correspond to the level of subjectivity characterizing a given instance of כי, which depends on the domain of use in which it operates. Just as more subjective non-content uses were prototypical of the semantics of causal כי, so too its syntax was found to be prototypically coordinate and independent rather than subordinate and dependent. In fact, these semantic and syntactic profiles lined up so precisely that this was taken as additional confirmation of the analysis.

Continuing to the chapter 6, the last chapter of Part Two, the task was now to offer a principled explanation for how such diversity of usage arises diachronically and is organized synchronically. There, I outlined the main processes that drive grammaticalization (reanalysis and analogy) and their respective mechanisms (metonymic and metaphorical extension). I also argued that polysemy is a necessary synchronic result of gradual diachronic change. However, rather than resulting in an arbitrary and undifferentiated mass of disconnected uses, I explained how these cognitively motivated changes produce principled organizations of a form's polysemy and polyfunctionality according to diachronic unidirectionality and synchronic prototypicality corresponding to entrenchment as determined by relative frequency. Such mechanisms then informed the corpus design and token analysis described in chapter 7.

Thus, the genuine polysemy of clausal connectives, such as כי, was strongly affirmed and given a principled account based on crosslinguistically prevalent diachronic paths of change and synchronic patterns of polysemy. Specifically, the insights discovered in section 6.2 were applied to section 8.3 where I presented a model for explaining the principled connection between the various uses within causal כי as an internally complex category. It was argued that causal כי can be organized in its various domains of use along the path of (inter)subjectification with its corresponding movement toward coordination along the subordination-coordination continuum. This culminated in Figure 8.1 where the various semantic and syntactic potentials of causal כי's internal complexity were arranged along the cline of subjectification and organized according to prototypicality (speech-act causation and syntactic coordination being most prototypical).

Additionally, the grammaticalization paths and semantic maps that overwhelmingly characterize the diachronic development and synchronic polysemy of adverbial clauses were given a relatively thorough description in section 6.3. There it was shown that it is not at all unheard of crosslinguistically for adverbial connectives to be highly polysemous within a word class (i.e. adverbial conjunction) and even be multicategorial (e.g. have adverbial, complementizer, and discourse marker functions). In fact, such polysemy and polyfunctionality is most likely found in words that are monosyllabic and communicate several of the major relationships within כי's very usage profile (e.g. temporal, causal, etc.). The burden of chapter 9 was to heuristically employ these grammaticalization paths and semantics maps in order to propose a principled account for the diachronic development and synchronic organization of כי's various uses. It was argued in section 9.3 that at its very origin, כי likely began as some lexical

word, perhaps meaning something similar to "likeness," from which it developed into a comparative preposition similar to the preposition כְּ. This conclusion was reached based on the common ancestry widely posited between כי and כְּ, as well as on comparative Semitic research which further supports this claim. This reconstruction was also proposed on the basis of the synchronic semantic potential of כי previously presented in sections 9.1–2, which seemed to be best explained if it had a comparative preposition as its source in the distant past. That is, it is extremely common for prepositions to serve as the source of both complementizers and adverbial conjunctions. This is born out both in Semitic languages and crosslinguistically in general.

Thus, it was argued that an original prepositional input developed parallel extensions into a complementizer on the one hand and adverbial conjunction on the other (specifically a modal adverbial of manner that subsequently developed into a temporal adverbial). However, these complementizer and adverbial connective uses survived after the original prepositional use died out (or rather diverged into what became preposition כְּ). From a temporal adverbial use, כי then developed into the CCC space of logical relationships (specifically via causal and conditional extensions). This CCC semantic space was also internally complex and evidenced various connections and developments. Causal כי was clearly seen to be the most prototypical of all of these uses. This use, in part due to its high frequency in relation to the others, was credited with the development of another word class, that of a discourse marker indicating continuation and elaboration, especially in oratorical/dialogical and polemical discourse.

In all, this study has identified the following 9 relatively semanticized uses within the usage profile of כי in the Hebrew Bible, listed in order of prototypicality: causal, complementizer, conditional, temporal, adversative, discourse marker of continuation/elaboration, concessive, purpose/result, exceptive/restrictive/negative conditional, and apodosis marker of a conditional clause. Furthermore, the most prototypical use, that of causal כי, was found to be internally complex and prototypically composed of non-content uses (most prototypical among them being its speech-act use) with a syntactic profile that mirrors its internal semantic polysemy (i.e. prototypically coordinate syntax).

Thus, the cognitive approach adopted in this study has allowed us to posit a principled description of the conceptual connection between the various uses of כי. At the same time, we are also able to appropriately distinguish senses based on their relative importance within כי's overall usage profile based on prototypicality as indicated by relative frequency. Van Hecke's

(2011:400) comments on the benefits of cognitive semantics also summarize well the usefulness of the model presented here for analyzing any grammatically polysemous word:

> Besides being more cognitively adequate, these descriptions have the advantage of doing justice to all extant meanings of a term, without simply filing them in an undifferentiated list, while at the same time describing the structure holding together the different meanings of each term without having to resort to the reductionalist definition of an abstract core.

It is hoped that this project has at the very least made headway in reaching a better understanding of this multifaceted word, and has provided insight into how such cases of grammatical polysemy may be approached.

Nevertheless, several limitations of this study remain. These include limitations of data and scope. In terms of data, as was mentioned in chapter 7, a quantitative study such as this one could be much more precise in terms of the statistic it draws on to indicate levels of entrenchment for a given use and therefore its prototypicality within a form's usage profile. While judged sufficient to make coarse grained proposals about the composition and organization of כי's polysemy and polyfunctionality, something along the lines of a more detailed behavioral profile analysis described in section 7.3 would yield more fine-tuned figures. In conjunction with this, more extensive tagging of examples for various factors would help to more precisely quantify the effect frequency has on prototypicality. Of course, as discussed in section 6.1.4, part of the problem is the inherent limitation of our current understanding of the relationship between frequency and prototypicality.

Additionally, this study also has several limitations of scope. Firstly, in order to conduct such a thorough analysis of כי, I have only been able to make limited observations in terms of a paradigmatic analysis that compares כי with other forms that may be employed for similar uses. For example, a paradigmatic analysis with other causal connectives would be illuminating in terms of complementary patterns of distribution that would yield further insight into the meaning of the compared forms. In fact, even within the various uses of כי itself, I was limited to applying the most thorough analysis to its causal use, since that figured most prominently in its functional profile. However, the internal complexity of its other uses has been largely left untouched. For example, conditional כי could be very fruitfully described according to the Basic Communicative Spaces Network just as I have done with causal כי. Along these same lines, my comparison of other Semitic languages with forms cognate to כי has also been confined to limited observations.

Such a comparative perspective would no doubt contribute much to a better understanding of כי. In particular, cognates to כי in other Semitic languages may reveal synchronic and diachronic profiles that would shed further light on the development of כי and therefore better inform our organization of its synchronic polysemy.

Above all, the caution voiced by Aejmelaeus (1986:209) needs to be heeded: "it must be borne in mind that the interpretation of the various functions of a multipurpose particle in a language no longer spoken can never reach more than a fair approximation of what was once in the minds of the speakers and writers of that language." Nevertheless, with unprecedented access to crosslinguistic data and converging evidence from explorations of the conceptual tendencies and constraints common to human cognition, we are in a better position than ever to increase the approximation of our understanding of what may have been in the minds of the authors and audiences of the Hebrew Bible when they used and read the word כי. Finally, in respect for the giants upon whose shoulders I stand, who have shown themselves to be scholars ahead of their time in anticipating much of the linguistic categories used in this project to refine and provide a firmer basis for their insights, I end by echoing the sentiment expressed in Van der Merwe's (1993:41) study of Hebrew particles: "…perhaps [this study] has just formalized and given us [more] certainty about relationships and implications that we have suspected all along. If so, it has achieved its goal."

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303

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