Grasping at Metaphors:

A Corpus-Based Analysis of the Inferential Processes which Shape Semantic Construal

by

Sydney A. Doell

A Thesis submitted to the Faculty of Graduate Studies of

The University of Manitoba

in partial fulfilment of the degree of

MASTER OF ARTS

Department of Linguistics

University of Manitoba

Winnipeg

Abstract

The study of metaphor has generated a series of diverse discussions maintained within the discipline of cognitive linguistics. To navigate the resulting questions regarding metaphoric versus literal phrasing, the following analysis seeks to determine the semantic and inferential factors relating to verb use in context-specific English VPs.

This study is designed to investigate the roles of VP-specific contextual cues which are found to further aid in making inferences, as well as extending the semantics of verbs beyond their central meanings. Employing a corpus-based approach, this study identifies how the verbs *get, grasp, hear, see,* and *feel* are used in a comparative analysis entailing metaphoric versus literal speech contexts. It is the goal of this study to determine the frequency of use per verb, which context utilizes them most often, and the ways in which the VPs in the metaphoric context allow for semantic maps to be drawn for each verb.

As a result of this approach, two factors become apparent: i) speakers' and listeners' utterances do show verb polysemy specific to context, and ii) there are clear differences between each verb analyzed both in terms of frequency of use and individual extent of polysemy. These differences are evidenced by semantic mapping. Analyzing metaphoric versus literal verb use illuminates the general discussion in cognitive linguistics surrounding the role of semantic conveyance and inference processing.

Key words: Verbs, metaphor, construal, semantics, English, corpus linguistics

Acknowledgements

As this thesis has grown and evolved, I have received tremendous support and encouragement. I would first like to thank my supervisor, Professor Terry Janzen, whose abundant expertise, insight, guidance, and patience has allowed for my research interests to find their footing in linguistic methodology. Your steadfast dedication towards my learning and this project has instilled in me an ever-growing appreciation for the study of cognitive linguistics. I am grateful to you also for pushing me to "glean" what I can from new perspectives and linguistic phenomena.

I would also like to thank my professors from past years whose influences have inspired my chosen academic pursuits, while their invaluable feedback and support has guided me to achieve them. Among these educators are Dr. Morgan Mulenga, Dr. Luann Hiebert, Dr. Jila Ghomeshi, Dr. Dennis Hiebert, and Dr. Michael Gilmour, whose lessons have been instrumental in the academic setting and beyond. Furthermore, I thank the members of my examining committee, Dr. Erin Wilkinson and Dr. Rob Hagiwara, for providing this thesis with additional direction through their meaningful feedback and engaging questions.

I would also like to thank my classmates, whose varying fields of interest and stimulating conversations have cultivated my own interest in the topics discussed in the present work. I have learned a great deal from you, and have admired your tenacity to achieve your goals while encouraging others to do the same. Finally, I want to thank my family and close friends who have expressed pride and interest in my work. I greatly appreciate your willingness to listen and the confidence you have given me. The support which I have received during the formulation and completion of this project knows no bounds, and I am truly grateful.

Table of contents

List of Tables

List of Figures

Chapter 1

Introduction: On metaphor and meaning

Metaphors, as we know them, are described by many linguists and literary researchers as being specially formulated phrases appearing in both spoken and written speech environments, which are designed to unite the characteristics of one concept with those of another – even though the two concepts in question may appear to be entirely different at face value (Lakoff and Johnson 1980b, Holyoak and Stamenković 2018, Gentner and Bowdle 2001, Bowdle and Gentner 1999, Thibodeau, Hendricks, and Boroditsky 2017). Furthermore, metaphors tend to draw attention to a specific element existing in a physical, real-world topic, object, animal, or human agent and compare it alongside an abstract topic or concept. Some examples of commonly used metaphors in everyday dialogue for a native English speaker are TIME IS MONEY and LIFE IS A JOURNEY. Although strange and seemingly unrelated at first glance, these examples represent metaphor on both a cognitive and linguistically rich level. Such examples are known to the cognitive linguistic discipline as conceptual metaphors due to their behaviour of taking elements from one concept and connecting it to any similarities found in another (Lakoff & Johnson 1980b).

In this way, the metaphor TIME IS MONEY pairs the abstract concept of time with the concrete, physical element of currency to demonstrate that both time and money are relative to one another in deeply realized semantic ways; depending upon the cultural context within which the metaphor appears. In an economically driven culture, the metaphor TIME IS MONEY signifies that time can be used in ways comparable to money. For instance, we can find ourselves *wasting time* on something that we may think should not have *taken so much time* to complete – such as a project at work, or an activity that may be considered unproductive. Therefore, English speakers have effectively transformed the intangible concept of time into something much more finite and almost physically malleable, which mirrors the object of currency. Similarly, linguistic metaphors arise through the phrases *spending time* and *wasting time* as these forms of metaphor serve to represent an underlying conceptual metaphor and are linguistically constructed on the basis of making conceptual inferences (Lakoff & Johnson 1980b).

These examples and explanations provide the foundation upon which the current analysis is built, as it endeavours to determine how verbs occur in metaphoric and non-metaphoric semantic contexts, as well as how a speaker's use of metaphors can inadvertently serve to guide the semantics of their audience's construal. Furthermore, this study seeks to explore three veins

of metaphoric influence on our understanding of primarily spoken semantics occurring in English as seen through corpora. These explorations include:

1. Taking a corpus-based approach, what is the extent to which verbs appear literally and metaphorically?
2. What is taking place in the discourse context to guide the listener to make correct inferences regarding literal or metaphorical meaning based on the speaker's (or writer's) use of the verb?
And finally,
3. By looking at VP-specific discourse found in a corpus, can semantic maps be drawn for certain verbs to aid in understanding their central and extended meanings?

These explorations will be viewed under the spotlight of five key verbs as they appear literally and metaphorically. The verbs in question are *get, grasp, hear, see,* and *feel*. Additionally, how these verbs are presented by the speaker prior to, during, and after they are used in their VPs will be observed via the Santa Barbara Corpus of Spoken American English (SBC) (Du Bois et al. 2000-2005) and to some extent the Corpus of Contemporary American English (COCA) (Davies 2008). Moreover, it is hypothesized that the involvement of embodiment, cognition-based speech behaviours, and the reinforcement of construal knowledge provided by context-specific schemas each play important roles in the ways in which English speakers guide and construe the meanings of verbs in the framework of cognitive phenomena as they unfold through a corpus-based analysis.

1.1 Outlining the problem: Meaning as literal or metaphoric?

A series of questions and empirical findings have arisen in recent years regarding metaphoric and literal contextual influences on the meaning of individual lexical items (as noted in Steen 2002, Feldman and Narayanan 2004, Gentner & Bowdle 2001, Stern 2006, and Blasko and Briihl 1997), which leads the present investigation to address a few questions of its own. These include: How do we know that a sentence is either literal or metaphorical? Where do verbs fit into the metaphoric-versus-literal understanding of an utterance? How do speakers act as 'guides' when presenting a sentence in either the literal or metaphoric context? What does metaphoric speech say about the way we think and derive meaning from the words the people around us are using?

And finally, how do our own inferential schemas aid in construing meaning from non-literal sentences which contain metaphoric verbs? These questions are developed throughout the current study as a means of investigating the role of metaphorical speech from both the speakers' and listeners' perspectives.

Moreover, this study is designed to explore how the verbs, *get*, *grasp*, *hear*, *see*, and *feel* are used in the contexts of literal and metaphorical speech resulting in any notable patterns and/or related speech behaviours which arise from the comments being presented by speech participants – as well as how their conversation evolves from a VP's onset to its conclusion. The significance of this study lies in its exploration of the role of metaphor regarding our ability to make inferences that best reflect the speaker's intended meaning when presented with non-literal speech and perhaps further reveal *why* we say *what* we say. This observation is needed to inform the present work according to the parameters outlined by the fundamental core of linguistic research, which posits that form follows function (Newmeyer 1994). This ideology, foundational to the academic discipline of linguistics, demonstrates how the form (or, typically, the syntactic structuring) of language is deeply rooted in its function, or goal, which is to inhabit within itself central meanings (Newmeyer 1994: 247).

However, some researchers instead argue in favour of metaphoric speech (form) being responsible for influencing the way we conceptualize the world around us (function) – essentially contradicting the previously stated phrase and resulting in confusion towards how we perceive metaphors in general (Thibodeau, et al. 2017). However, this position suggesting that metaphor is responsible for shaping thought is not being disputed within the current study, as several accounts provided by other researchers and related pragmatist views support this notion with empirical evidence and related analyses (Thibodeau, et al. 2017, see also Gentner & Bowdle 2001, Linell 2009).

Instead, the goal of metaphoric language according to the position held by the current analysis is such that the influence of metaphoric VPs and their specified verbs possess, within themselves, central and extended meanings which are then carried from speaker to listener. This premise of metaphoric forms and their overall function in speech as seen through specific verbs will serve to guide the current study into areas of cognitivist and pragmatist perspectives surrounding the human mind and the language it uses to i) form meanings through metaphors, and ii) guide audiences to grasp them.

At this time, it is beneficial to address the central vocabulary and terminology which will be used consistently throughout this study. Firstly, any mention of context will be directly relating to the discourse context (i.e. either literal or metaphoric interpretations) of the clauses used by speakers. This use of the term 'context' appears in much the same way here as it does in the study conducted by Stern (2006), who states that

> The ubiquity of non-literal language has come to be much more widely appreciated, leaving it less certain how much natural language is actually literal. Many now recognize how little conventional meaning determines the intuitive truth-conditions, or contents, for most utterances, and how much more is contributed by *context* and speakers' intentions, and in ways that seem to resist systemization and formalization (Stern 2006: 244; italics added).

In this way, Stern (2006) views non-literal (metaphoric) speech as forming its own contextual system apart from – yet conceptually related to – literal language.

The discussion of literal and metaphoric contexts highlights another essential definition which will arise throughout the following chapters; that is, what is meant here by literal and metaphoric (also described here as non-literal and figurative) clauses. Essentially, the present analysis will utilize the term 'literal' when referring to comments made by a speaker which are interpreted as being concrete and usually physical in nature, or simply statements which harbour a factual "truth" (Stern 2006: 273). For instance, if a speaker mentions to their hearer that they are going to *get* groceries from the store, the listener will construe that this statement falls into the literal context, as the verb *get* is being used in a factual way. *Get* here indicates to the listener (in tandem with the physical handling of the grocery items, themselves) that literal objects, locations, and actions are taking place and, therefore, the use of *get* must also be understood as being the literal carrying out (or acting upon) of the verb being utilized.

Metaphoric context, then, represents any conversational findings which are interpreted according to the view of Bergen (2005), who simply states that "words have literal meanings, and can be used figuratively" (Bergen 2005: 1). Therefore, metaphoric language is understood here to appear as abstract in nature. Moreover, the use of any of the five verbs mentioned earlier are assigned to the metaphoric context if they are found in speech indicating abstract topics, whereas literal verb semantics are interpreted in the case of concrete topics being referenced (such as objects being perceived by one's physical senses).

Another important factor to discuss is how the current analysis proposes to define each of the five key verbs, and why they have been chosen. Namely, *get, grasp, hear, see,* and *feel* are described throughout this analysis according to their primary respective entries within the Merriam-Webster Dictionary[1] (MWD). Therefore, *get* is defined by this dictionary as a verb meaning "to gain possession of" and "to seek out and obtain." The common factor pertaining to this verb is clearly that of physically handling an object – particularly when applied in the literal context. However, this literal interpretation of the verb will take us in metaphorical directions as the present study unfolds, where such avenues of prototypical interpretations, the polysemous nature of verbs, and the extensions of meanings allotted to verbs will be discussed throughout Chapters 4 and 5.

Moving forward with the next definition, the verb *grasp* is described by the MWD as meaning "to take or seize eagerly." Again, this verb's roots are deeply entrenched in the literal context, but just as we will investigate with the verb *get, grasp* has been noted by linguists present and past to have escaped the confines of the literal context and to establish itself just as prominently (if not more so) in the non-literal vein of speech (see Fellbaum 1990, Langacker 1987, Feldman & Narayanan 2004, and Chilton 2009). Some examples of *grasp* being used metaphorically in English are phrases such as "Does that makes sense? Can you *grasp* my idea/concept?" and "*grasp* the severity of the situation" as opposed to more literal phrases such as "*grasp* the steering wheel firmly in both hands before making a turn".

The verb *hear* is defined by the MWD as "to perceive or become aware of by the ear." Evidently, *hear* falls into the same contextual trend as the previously defined verbs with its definition being entered into the MWD as a verb denoting a literal interpretation. It should come as no surprise that the verb, *see*, follows suit, as this verb is defined as being a physical, literal sense, in essence "to perceive by the eye." The final verb to be analyzed here, *feel*, is also defined as the base concept of physicality, with the MWD entry stating, "to handle or touch in order to examine, test, or explore some quality."

These five verbs have been chosen due to their common use in dialogue, both individually and in conventionalized phrasing, specifically in their root forms. The root forms of these verbs have been chosen for analysis to compare them as basically (or foundationally) as possible. To include all of the inflected forms in addition to the root forms is also feasible, but

[1] As accessed through the following website URL: https://www.merriam-webster.com/

for understanding the frequency of use according to *get, grasp, hear, see,* and *feel* in their root presentation is determined here to produce a promising data set to further discussions surrounding the contexts within which they are used. The roles of transitivity of VPs in literal and metaphoric clauses as well as subject and tense influences surrounding the verbs, themselves, are certainly open to be considered in studies which may benefit from the principles and methodology utilized here.

As previously mentioned, these verbs will be examined according to their base dictionary definitions appearing as initial entries in the MWD, but are also expected to demonstrate varying degrees of extension, particularly into the metaphorical context. It is reasonable to hypothesize that these verbs share and exploit a number of linguistic and cognitive elements which allow them to take on new meanings such as those of the non-literal avenue, as this investigation hopes to understand and demonstrate through a corpus-based approach. This process of extension analysis through corpora will aid in quantifying certain verbs as they occur, in which context they are found most commonly, and how such factors provide answers to the three research questions presented by this study.

1.1.1 Understanding the polysemy of verbs: Literal and metaphorical

Thus far, it has been suggested that verbs are considerably polysemous as seen by their applications in various contexts within the English language; which may only truly be obvious when comparing the dictionary definition of a verb as it appears in the literal context alongside a metaphoric (but no less semantically valid) expression. For example, consider the definition discussed earlier for the verb *get*. The MWD states that *get* means “to gain possession of” or “to seek out and obtain” and, by way of inference, this definition suggests the use of one’s hand(s) to accomplish the end goal of the verb. Therefore, this verb seems rather well established in the context of literal operations as determined by the physical imagery it evokes, as well as its literal base semantics. However, if one finds themselves discussing a complex problem with a colleague and, upon finally understanding what it is they are trying to articulate, it is coherent to suddenly exclaim, “oh, I *get* it!” That being said, how does such an instance appear organically in speech when the definition seems to contradict the possibility that the use of the verb *get* could be utilized in a context other than the literal?

One perspective outlined by Bowdle and Gentner (2005) suggests that "Metaphors are also a primary source of polysemy – they allow words with specific meanings to take on additional, related meanings" (Bowdle & Gentner 2005: 91). In this way, polysemy is understood as being a phenomenon in which one word – or even a complete phrase, for that matter – is capable of eliciting two or more interpretations through central and extended meanings (Gronemeyer 1999: 1). Certainly, polysemy is an excellent indicator to identify in which contexts verbs occur, how they are used, and how listeners are able to interpret the intended semantics within.

In consideration of these perspectives, how does one account for the dictionary definition's assignment of these verbs which appear to owe their initial, more general application to the literal context? One way to answer this question lies in the framework of the current analysis, which posits that the corpora to be consulted later aid in discovering how often the verbs appear literally versus metaphorically, and how the topic in a conversation reveals the context which allows semantic maps to be generated for each verb. The current analysis is therefore provided with additional substance to explore the central and extended meanings of verbs as demonstrated through the phrasing of a speaker's utterances.

Furthermore, referring again to *get*, one can say "I *get* it" in reference to an idea that has just been *received* by an individual in a conversation, just as one can say, "I'll *get* the newspaper" with the shared referent being the verb's goal (i.e. acquiring something or some concept). This extension allows the verb's etymological starting point to cover more ground in the form of building upon such literal reference points and applying them to non-literal scenarios and topics. However, is it possible that the use of verbs in a metaphorical context outweighs the number of instances seen in the literal?

To shed some additional light on this subject, Bowdle and Gentner (2005) assert that "the cognitive perspective on metaphor has undergone a radical shift. Traditionally, metaphors have been treated as both rare in comparison to literal language and largely ornamental in nature. Current research suggests precisely the opposite. Rather than being restricted to poetic uses, metaphor is common in everyday communication" (Bowdle & Gentner 2005: 193). This observation suggests that the metaphorical context of verb use has shifted dramatically towards being more widely recognized as commonplace speech patterning, particularly in light of the semantic mapping involved with metaphoric language when compared to the literal context.

Fellbaum (1990) further asserts that "The higher polysemy of verbs suggests that verb meanings are more flexible than noun meanings" (Fellbaum 1990: 278). Fellbaum's (1990) research regarding verb polysemy supports this finding by noting that

> Even though grammatical English sentences require a verb though not necessarily a noun, the language has fewer verbs than nouns. For example, the *Collins English Dictionary* lists 43,636 different nouns and 14,190 different verbs. Verbs are more polysemous than nouns: the nouns in *Collins* have on the average 1.74 senses, whereas verbs average 2.11 senses (Fellbaum 1990: 278).

Furthermore, it is this flexibility which has allowed verbs to be highly semantically coherent and creative in terms of the listener's construal as verbs are able to blend into their contextual surroundings to encourage contextually derived inferences. Such observations encourage the following discussion which highlights the speaker's suspected guiding tendencies, as well as the connection between pragmatic applications of verbs and intended construal through VPs.

1.1.2 The speaker as guide: Presenting intended construal through VPs

Now that the implications surrounding the current study have been addressed, as well as its identification of the problems and how they may be resolved, let us unpack the role of metaphorical VPs to guide the listeners' construal. Following the role of the speaker will require not only a close inspection of what they say, but also how they say it and if they include any contextual clues indicating what is happening in each context of the VPs in question.

The details of the speaker's statements and the implications they carry will be looked at more closely in Chapters 4 and 5. Until then, let us investigate how the speaker presents certain speech behaviours – as well as their underlying intentions. An emergent perspective pertaining to the speaker, in general, is that they seldom have a clear-cut intentionality, per se, regarding the phrases they use and the contexts they employ to get their point across. Some researchers have noted that, in fact, a considerable amount of our speech practices (including the selection between metaphoric and literal clauses) are quite *unintentional* in both their goal and delivery (see Linell 2009, Carston 2002). According to Linell's (2009) findings, it is suggested that "meaning is not a purely cognitive phenomenon" (Linell 2009: 235),

and yet “agents, or persons, are fundamental in making meaning” (Linell 2009: 221).

Indeed, language usage between interlocutors encourages conventionalized meanings for words and phrases, but which interpretations are more common in dialogue, and why? Essentially, Linell’s (2009) statements here indicate that the meaning of a phrase is intended by the speaker - making them a “fundamental” component in a conversation, as is the listener (Linell 2009: 221). However, Linell’s (2009) approach to sense-making suggests that neither the speaker nor the listener relies solely upon their cognitive evaluations towards an utterance, but also their situational interpretations which are made “relevant there-and-then” (Linell 2009: 235). Thus, both semantic guidance and construal greatly depend upon the situation being molded by the speaker’s conventionalized, raw statements.

The speaker’s role, then, is quite simple: To produce conventionalized speech which provides contextual information, with the listener’s inferential processes generating an interpretation. Such inferences are also established through the listener’s schemata which have been developed, encouraged, and reinforced over the span of their cognitive, social, and linguistic development. Anderson (1978) describes a ‘schema’ as “[a representation of] generic knowledge; that is, it represents what is believed to be generally true of a class of things, events, or situations. A schema is conceived to contain a slot or placeholder for each component” (Anderson 1978: 2-3).

This definition is noted as following the terminology and findings developed by the psychologists Piaget (1926) and Bartlett (1932), whose contributions are cited by Anderson (1978: 2). According to Anderson (1978), these researchers provide the cognitive and developmental framework specific to the speaker’s role of implication and the listener’s ability to follow through by construing these meanings. Moreover, Anderson (1978) articulates, “To comprehend a message is to place a construction upon it which gives a coherent formulation of its contents. In schematic terms, a ‘coherent formulation’ means a one-to-one correspondence between the slots in a schema and the ‘givens’ in the message” (Anderson 1978: 4). These observations are poised to provide the current analysis with the cognitive perspectives required to identify what the speaker is doing when VPs in the metaphoric and literal senses are produced, which verbs are used to convey certain semantics, as well as where speech cues exist.

Anderson’s (1978) statement here provides insight into the ‘one-to-one’

relationship taking place between the mind's schemas and the extended meanings associated with each verb used by the speaker. As the speaker articulates VP constructions using source domains and target domains as seen in metaphors, the listener expands upon these 'given' messages. As related discussions unfold throughout the following chapters, let us first take into account what can be expected from this point onward regarding the organization and layout of the current study.

1.2 Organization and expectations

With the establishment of the definitions, findings noted by other researchers, and current trajectory of the present study's explorations, it is important to note additional expectations and the overall organization of findings and discussions which follow. Firstly, the development of the present work's hypothesis is such that the focus is aimed towards the VP presentation as it appears through the utterances of a speaker. Such points are explored in greater depth according to the literature review of Chapter 2. Secondly, Chapter 3 describes what can be gleaned from corpora to pinpoint and understand inferential processes. Most importantly, the perspective that speakers are capable of guiding construal through VPs and that listeners can construe these intended meanings are reinforced and strengthened, semantically, via the verbs being used in their given contexts, as noted throughout Chapter 4.

Finally, the current investigation concludes by noting how the SBC and the COCA data demonstrate the research findings, as Chapter 5 summarizes these results and asserts how the information presented can be utilized for greater use in the field. Thus, the overall organization of the present work is centred upon establishing how context indicates meaning, which elements (i.e. parts of speech) constitute these contexts, and where observational parallels lie between the current analysis and those conducted by others. A more detailed look at the chapters to follow is outlined in Subsection 1.2.1 below, providing a clear layout of the study as a whole.

1.2.1 Layout of the current study

The layout of the present study is founded upon the understanding of metaphoric meaning, VP use, verb appearances in speech, the roles of both the speaker and the listener, and how each of these aspects is being interpreted through the researcher's native understanding of the English language, as well as formal training in related areas of cognitive linguistics and semantics. This

study is also being conducted in light of spoken phrases which are understood herein as being presented strictly in the spoken (and at times, written) sense, with both the speakers and audience members being identified as hearing and seeing individuals who are often in the same room as one another. Such details are stated by all the SBC recordings, in which the exceptions to face-to-face visual settings are noted in files where telephone conversations take place.

As Chapter 2 unfolds, the background information regarding metaphors, construal, polysemy, VPs and their specific verbs, schemas, inferences, and empirical studies conducted within the literature are discussed. From these perspectives and observations, Chapter 2 leads the present investigation into more detailed knowledge regarding past studies of metaphor and those of the present. Chapter 3 outlines the data and methodology of the current study to ensure that the data collection and method of sifting through the information each corpus provides is fully realized. The limitations which are encountered, as well as the advantages specific to the corpus-based approach, are also developed. The dissection of findings and use of tables takes place in Chapter 4. This chapter makes use of the data compiled from the SBC primarily, with reference to the COCA when applicable. Several other studies and key authors operating within the field of cognitive linguistics are also referenced to provide additional support for the current study's results. The hypothesis of this work is such that the five key verbs will show varying degrees of semantic extension from their base definitions; showing that it is possible to draw semantic maps from observations of verb use in both the literal and metaphoric contexts of speech.

Finally, Chapter 5 summarizes the information gathered throughout this analysis, the perspectives of other researchers, this study's findings, and what the cognitive linguistic domain of research stands to gain from the analysis at hand. Additionally, Chapter 5 proposes what may lie in store for the continued investigations surrounding metaphoric speech, the roles of the speaker, inferential processes, and the VPs (as well as their key verbs) which indicate meaning. Most importantly, the concluding chapter of the present study provides a final look at a more refined understanding towards the way VPs and their contexts serve to generate meaning, and how this reveals, in part, the way we think and conceptualize the world within and at large.

Chapter 2

Literature review

2.1 Introduction

Approximately four decades ago, a series of highly circulated publications began making notable strides throughout the literature specific to linguistic, cognitive, and literary disciplines, and entail the critical analysis of metaphors as they occur in everyday speech. These publications include the works most notably contributed by Lakoff and Johnson (1980a, 1980b, Lakoff 1988). Further studies surrounding this subject soon developed into a set of theories as scholars in many overlapping fields expressed interest in understanding what makes metaphors so linguistically creative and cognitively revealing.

The current chapter reviews the perspectives regarding the linguistic and cognitive developments made through metaphor and verb-based research to date. This exploration highlights the philosophical approach to metaphor and how metaphors occur in areas other than classic literature by noting the commonality of metaphors in everyday speech. Section 2.2 notes how each approach towards metaphor taken by scholars suggests that it appears in everyday dialogue more often than previously thought. It is then discussed throughout Section 2.3 how theories of cognition and figurative language address verbs as they appear in the metaphoric context. Moreover, it is noted throughout Section 2.4 how several authors operating within the current literature have discovered cognitive ties to metaphors in language use as well as where their findings are leading the current analysis. This is accomplished by observing certain verbs and contextual influences on the semantic construal of the listener. Finally, Section 2.5 summarizes the literature review and what we currently know about metaphor, verbs, and related factors influencing construal.

2.2 Background: Metaphorical and literal clauses

Historically, metaphors have been circulating within the speech patterns of English speakers for millennia. It exists in our ancient texts, Holy Scriptures, historic transcriptions of law and religion, as well as artifacts depicting past societies and their ways of life. Moreover, the academic component of the Hellenistic culture is noted to have edged metaphor into the broader world of scholars regarding thinking critically about where metaphor comes from, what it means, how it is manufactured both structurally through syntactic analysis and cognitive processing, and

why we gravitate to such expressions when straightforward speech could serve the same purpose. Or would it? Consider the position taken by Linell (2009) who proposes that

> …meanings are properties of situations, utterances, contributions to interaction, situated cognitive events, etc. So what about the 'meanings' of linguistic resources, such as lexical items (words) and grammatical constructions? The dialogical answer is that 'lexical' or 'linguistic' 'meanings'[…]are not meanings at all[…]. Instead, language users' linguistic resources have semantic *potentials* that, in combination with contextual resources, contribute to generating situated meanings (Linell 2009: 235; italics in original).

In essence, metaphors are hardly reserved for formal situations, such as seen in poems or parables. Instead, Linell's (2009) meaning potentials described above exercise a serious role in determining what the listener can infer from a statement – with metaphors being no exception.

Furthermore, it is beneficial to now establish how metaphor achieved such a transition into modern academia and how it is defined today. Looking ahead to the late twentieth century, the notable increase in academic interest surrounding metaphors outside of the arena of classic literature did not arrive as an entirely new phenomenon. However, the fact that scholars began taking metaphorical speech as it appears in discourse more seriously and studying it more rapidly is largely credited to the contributions of Lakoff and Johnson (1980a, 1980b). As a result of their collaboration, linguists across the spectrum of cognitive and structural specialties pertaining to figurative language have been provided with the publication known as *Metaphors We Live By* (Lakoff & Johnson 1980b). Although Lakoff and Johnson (1980a, 1980b) are neither the first nor only linguists to raise questions about metaphorical speech or how languages incorporate figurative reasoning within their respective conceptual frameworks (Gentner & Bowdle 2001, Bowdle & Gentner 1999, 2005, Langacker 1987, Anderson 1978, among others), these authors have been recognized as demonstrating in great detail the varying topics conveyed by the metaphors English speakers use on a day-to-day basis.

Metaphors We Live By (Lakoff & Johnson 1980b) presents the reader with a categorical depiction of metaphors as it outlines which metaphors are used to signify specific ideas and even the mental spaces being presumably shared by both the speaker and their audience. One such example they use to demonstrate the sharing of mental spaces between individuals during a conversation is the conceptual metaphor, LOVE IS WAR (Lakoff & Johnson 1980b: 49). This metaphor involves two different mental spaces: The first being the topic of love. Thinking about

everything that love may entail to the average English speaker, this term likely includes descriptions akin to kindness, romance, care, tenderness, attraction, and devotion. Contrastingly, Lakoff and Johnson's (1980b) metaphor combines the mental space of something as gentle and kind as one's conceptualization of the word *love* with the topic of *war* – the second mental space of this metaphor.

War, of course, does not generate such caring and kind imagery as love seems to accomplish. So where is the connection? Why do Lakoff and Johnson (1980b) draw upon this metaphor while also describing other examples in which argumentation is yet another concept closely linked to war? (i.e. ARGUMENT IS WAR) (Lakoff & Johnson 1980b: 4). Naturally, the mental spaces of *arguments* and war appear to share a much closer semantic bond compared to those of *love* and war. However, other connections can be made between love and war through linguistic metaphors, such as Lakoff and Johnson's (1980b) examples, "He is known for his many rapid *conquests*. She *fought* for him, but his mistress *won out*. He *fled from* her *advances*" and many others (Lakoff & Johnson 1980b: 49).

The answer lies in our ability to find common themes from two or more topics and note where they share significant relevance to one another. This notion leads to another collaborative investigation into the way we think, as well as how metaphors are the ideal tools for understanding (in a broader sense) the connection between cognition and language. One such approach to language and thought has been developed by Wilson and Sperber (2006), who state that the blending of themes and mental spaces within metaphors is the premise of Relevance Theory. Relevance Theory postulates that topics such as love and war rely upon key elements present within each mental space. These key elements can then be used to form a congruent metaphor by the speaker.

Taking this approach, let us consider the factors pertaining to both love and war which aid in our ability to pinpoint their shared semantics and the overall message they bear in the form of a metaphor, such as the ones presented by Lakoff and Johnson (1980b). First, love does not always depict a sense of kindness or a passionate, gentle attitude or feeling towards another person as our initial understanding of this topic may suggest. Love can also be argumentative, heated, aggressive, aggravating, and even confrontational. Such themes suggestive of emotional turbulence do not entirely indicate the absence of love, however, but they do introduce a point of relevance to similar events experienced in war. This combination not only exists in speech

because it sounds poetic or generally intriguing to the ear, but rather, it introduces an opportunity for our minds to create a scene in which love and war are not as starkly contrasted from one another as they seem at face value.

For additional information, mental spaces are defined by Fauconnier and Turner (1994) as being

> …small conceptual packets constructed as we think and talk, for purposes of local understanding and action. Mental spaces are very partial assemblies containing elements, and structured by frames and cognitive models. They are interconnected, and can be modified as thought and discourse unfold. Mental spaces can be used generally to model dynamical mappings in thought and language (Fauconnier & Turner 1994: 307).

Fauconnier and Turner's (1994) observation here suggests that mental spaces are organizational cues existing in the mind which are later built upon to make connections on a conceptually relevant basis. As such, the current analysis adheres to this definition in all related statements to follow.

With these perspectives in mind, let us consider an additional point made by Lakoff and Johnson (1980b) which posits that linking one metaphorical concept to another is quite central to the way we think and, by extension, the way we speak (Lakoff & Johnson 1980b: 3-5). This perspective is now known as Conceptual Metaphor Theory (CMT) (as stated in Semino 2017: 464). This theory proposes that concepts in our everyday thought processes involve actively linking one concept to another (whether they be literal, metaphorical, or both) to generate meaning. It is noted by several authors that the practice of combining concepts takes place most prominently through the utilization of metaphors and reveals trends in conceptual processing, as such language is used to convey the intentionality of a thought or, in essence, its goal (see Langacker 1987, Lakoff 1988, Lakoff & Johnson 1980a, Gibbs 1998). For creative as well as pragmatic purposes, metaphors are highly intertwined in our everyday speech practices, yet we don't think twice about what they mean; we simply present them in their conventionalized forms.

The examples LOVE IS WAR and ARGUMENT IS WAR demonstrate how the concepts within metaphors are linked to one another, and how they can present the listener with information that defies concrete logic, and instead relies upon conceptual logic. Now that it has been noted how metaphors came to be studied more closely by the academic community specific to cognitive linguistics, as well as how metaphors aid in establishing common ground for mental spaces and

topic relevance, it is important to introduce additional background information pertaining to where a speaker's and listener's understanding forms a referential space for the purpose of both presenting (again, unintentionally) and construing the semantics of metaphors versus literal speech.

2.2.1 Defining metaphor: English examples and significance

Following the perspectives noted thus far, it is helpful to address how metaphor has been defined to date. Metaphor is observed by Lakoff and Johnson (1980b) to be traditionally regarded as "a device of the poetic imagination rather than ordinary language. Moreover, metaphor is typically viewed as characteristic of language alone, a matter of words rather than thought or action" (Lakoff & Johnson 1980b: 3, see also Sullivan 2017: 385). However, these authors assert that, instead, "*The essence of metaphor is understanding and experiencing one kind of thing in terms of another*" – which is particularly evident in the way we speak (Lakoff & Johnson 1980b: 5; italics in original).

Earlier views of metaphor, like those associated with Lyons (1977), address metaphor in terms of being one of "the traditional figures of speech[…][which] were employed by the Stoics and their successors, to account for the allegedly natural extension of meaning from an original or basic to a secondary related sense" (Lyons 1977: 104). These definitions of metaphor allude to its identifiable use in both speech and writing to point out meaningful connections between one idea (or any "thing") to elements resembling this core meaning found in another idea (Lakoff & Johnson 1980b: 5). In light of these definitions, it will be discussed in greater detail how verbs interact within the environment of metaphoric phrasing in Section 2.3, but for the time being, each of the following examples serve to demonstrate just how prominent the verbs *get, grasp, hear, see,* and *feel* are in the metaphoric context of the English language. Taking this perspective, let us delve into the commonalities metaphors in English are noted to share, as highlighted in Feldman and Narayanan's (2004) findings.

These researchers relate that "There are several metaphorical uses of the word 'grasp'[…]. Understanding a metaphorical use of a word like grasp is obviously different from physically grasping something[…]" (Feldman & Narayanan 2004: 387). Feldman and Narayanan (2004) further articulate that the Neural Theory of Language (NTL) "suggests that all understanding involves simulating or enacting the appropriate embodied experience (whether it

be our own, or someone else's). When asked to grasp, we enact it. When hearing or reading about grasping, we simulate grasping or watching someone grasp" (Feldman & Narayanan 2004: 389). In this way, the NTL provides linguists with a highly plausible explanation as to why metaphors are so deeply entrenched into our daily narratives – particularly when VPs arise. To explain further, we can imagine verbs quite easily and all that they entail when someone else uses them. Feldman and Narayanan (2004) explore how *grasp* stimulates a cognitive response relating to the action associated with this verb. Therefore, if one were to use *grasp* in the metaphoric context, such as *He was finally able to grasp the main focus of the project*, English speakers are aware that this is metaphorical, yet the use of this verb also triggers a mental simulation – minus the presence of a physical entity to grasp, or any evidence of this action being carried out by the speaker externally.

Feldman and Narayanan (2004) carve out a promising study with the use of technical analysis and computer programming (along with human subjects) to discover that, in the form of brain chemistry and electrical response, we do indeed react nearly identically to verbs being presented to us (as listeners) when a speaker presents them both metaphorically and literally. One example is illustrated by these authors in the first paragraph of their analysis which involves a speaker asking their listener if they could pass the salt while sitting at a dinner table. The actual phrasing includes the words "could you pass the salt?" which is stated as a question, but the verb *pass* is *not* being used metaphorically (Feldman & Narayanan 2004: 385). Rather, the listener construes that the task involving this verb requires a literal action, as the context also suggests. These factors are then simulated in the mind of the listener, and they comply with the request made by the speaker.

Either way, by focusing on the listeners in Feldman and Narayanan's (2004) study, they reveal that the brain will respond to these verbs in virtually the same way for both the literal context and the metaphorical. This mental response takes place at the point of verb use so as to "simulate" the deeply engrained, physical representation of the verb being utilized (Feldman & Narayanan 2004: 385, see also Bergen 2005: 4-7). This theory provides the current analysis with a unique angle by which to view the role of verbs in the metaphoric and literal contexts of English, but also how our cognitive perception of metaphors may rely upon the appearance of verbs in an utterance. Similar findings have also been noted by Bergen (2005), who further states that

> Language understanders automatically mentally imagine, or simulate scenarios described by language. The mental simulations they perform can include motor detail at least to the level of the particular effector that would be used to perform the described actions, and perceptual information about the trajectory of motion (towards or away from the understander; up or down), as well as the shape and orientation of described objects.[…]these simulations are executed by the very brain mechanisms responsible for perceiving the same percepts or performing the same actions (Bergen 2005: 4).

Thus, it is clear through the work of Feldman and Narayanan (2004) as well as Bergen (2005) that the way we speak also reveals how we think about action in the absence of movement and how verbs trigger these meanings. Related observations have similarly been noted by Thibodeau, Hendricks, and Boroditsky (2017) in more recent accounts of thought and language processing on the basis of metaphorical verb use.

Now that some examples have been addressed and discussions raised regarding what is recognized as metaphorical and literal speech, as well as the key authors who have shaped the study of metaphor altogether, let us consider the two main types of metaphors (conceptual and linguistic) as outlined by Lakoff and Johnson (1980a, 1980b), Casasanto (2009), Sullivan (2017), and Holyoak and Stamenković (2018). Understanding these two key types of metaphor is instrumental in building upon the notion that metaphors are not only capable of linking various concepts, but are also quite fluid in the ways in which they extend their semantics.

2.2.2 Conceptual metaphor and linguistic metaphor

In conjunction with recent developments pertaining to metaphors as linguistic and prominently cognitive representations of how we organize meaning, Lakoff and Johnson's (1980b) development of Conceptual Metaphor Theory (CMT) (noted also by Sullivan 2017: 392) has generated the potential for analyzing metaphor and the meaningful connections found within. Regarding this pursuit of understanding how conceptual connections are mapped in metaphor, two categories have emerged from the literature: Conceptual metaphors and linguistic metaphors.

Casasanto (2009) describes conceptual metaphor as being, according to Lakoff and Johnson's (1980b) analysis, the "mental representation" of a whole concept (Casasanto 2009: 127). An example of a conceptual metaphor is UNDERSTANDING IS SEEING – one of many conceptual metaphors presented by Lakoff and Johnson (1980a, 1980b). In this example, there is

also what is known as the source and target domains. In accordance with the conceptual metaphor UNDERSTANDING IS SEEING, Sullivan (2017) writes "In CMT terms, the concept of seeing is called the *source domain* and understanding is the *target domain* of this metaphor. Cognitive structure is said to 'map' from the source domain to the target domain, so that the target domain can be understood in terms of the source. Metaphors are named in the format 'TARGET DOMAIN IS SOURCE DOMAIN'" (Sullivan 2017: 392).

Another presentation of metaphor to consider is known as a linguistic metaphor. A linguistic metaphor is described as a linguistic realization of the underlying concept from which it stems (Sullivan 2017: 392-394). To demonstrate the use of a linguistic metaphor, let us consider the previous conceptual metaphor, ARGUMENT IS WAR. Some examples of linguistic metaphors pertaining to this conceptual one are noted by Lakoff and Johnson (1980b) as being, "Your claims are *indefensible.* He *attacked every weak point* in my argument. His criticisms were *right on target*. I *demolished* his argument[…]," and so forth (Lakoff & Johnson 1980b: 4; italics in original).

Bearing these definitions and examples in mind, how can conceptual and linguistic metaphors aid in the current investigation's goal of identifying the significance of VP metaphor presentation towards the listener? A strong position is maintained throughout the current section which asserts that speakers present conceptual metaphors, as well as linguistic metaphors, to accomplish this semantic guidance and construal dynamic. However, it is important to note that speakers are unaware of doing so, nor do they make any conscious effort to guide their audience in this way. The appearance of verbs in the metaphorical and literal contexts exists as a result of conventionalized use over time. To observe construal from this point onward, a speaker's audience also appears to recognize the meanings of these metaphors, and generates shared cognitive domains between speech participants.

The notion that speakers and listeners are already familiar with certain conceptual metaphors is generated from knowing that both individuals encounter the same ones over the course of each person's lifetime (Fischer 2017: 330-331, Fillmore 1976: 123-125). Both the speaker and the listener have been immersed in their specific culture of metaphors through advertisements, media content, parental influences, and so forth. Every instance of intersubjective experience observed by the speaker and listener has allowed for these conventionalized conceptual metaphors to exist in everyday dialogue without the speaker's or

listener's conscious acknowledgement of them. That being said, there is plenty of evidence to suggest that metaphors can be analyzed further when investigating the semantic mapping of the concepts occurring within.

Casasanto (2009) asserts that, regarding metaphor classification and our perception of each type discussed above, "linguistic metaphors should be treated as a source of *hypotheses* about the structure of abstract concepts. Evaluating these hypotheses – determining when a linguistic metaphor reflects an underlying conceptual metaphor – requires both linguistic and extra-linguistic methods, and calls for cooperation across disciplines of the cognitive sciences" (Casasanto 2009: 143; italics in original). In consideration of this statement, the argument can be made that the speaker's use of a linguistic metaphor follows the same principles of understanding and construal on the part of the listener as demonstrated from conceptual metaphors. Moreover, Casasanto (2009) considers the research methodology involved for analyzing metaphor use; that is, not only studying what the speaker is saying, but also noting the cognitive semantics at work in the mapping of observed concepts.

One way to investigate these connections further is to review the work of Holyoak and Stamenković (2018). They write "At the most general level, the conceptual mapping position posits that meaning is based on broad conceptual metaphors. In particular, many concepts appear to be derived from our naïve understanding of physical space, which has been characterized as a 'universal donor' to metaphor (Gentner, Bowdle, et al., 2001, 242)" (Holyoak & Stamenković 2018: 653-654). Along this line of thought, conceptual metaphors evoke a sense of standardized meaning, and are labelled quite simply in linguistic analysis (such as UNDERSTANDING IS SEEING and LIFE IS A JOURNEY). Similarly, linguistic metaphors serve to be just as informative to the listener when engaging in figurative language which depends upon one's experiential knowledge of the underlying concept – even if this knowledge is not being consciously consulted.

Furthermore, the fact that linguistic metaphors exist as an extension of conceptual metaphors reveals that in the target and source domains pertaining to mental spaces, there is constant opportunity for connections to be made and meanings to be intended and inferred. By analyzing these two types of metaphors, it can be argued that they provide the speaker with the necessary means to generate meaning for their listeners by relying upon the inferential schemas of this audience. That being said, it is necessary to investigate in more detail how verbs fit into the metaphorical equation of meaning presentation and meaning inference, as the following

section takes into account the properties attributable to verbs which make them ideal for this semantic exchange.

2.3 How verbs fit into the metaphorical equation

In basic terms, verbs often consist of action and intentionality as projected by the speaker, but there are exceptions to this claim. For example, Hopper and Thompson (1980) discuss the role of transitivity when encountering verbs which do not indicate agentive intentionality towards a patient. They assert, regarding volition, "The effect on the patient is typically more apparent when the [participant (or agent)] is presented as acting purposefully; contrast *I wrote your name* (volitional) with *I forgot your name* (non-volitional)" (Hopper & Thompson 1980: 252). The verbs used here, *wrote* and *forgot*, indicate different meanings not only because they are different verbs, but also due to their volition (or lack thereof). Furthermore, English is found to employ verbs according to their quality of being "arguably the most important lexical and syntactic category of a language. All English sentences must contain at least one verb, but, as grammatical sentences with 'dummy' subjects like *It is snowing* show, they need not contain a (referential) noun" (Fellbaum 1990: 278; italics in original).

What is curious to note regarding verbs in English is that they work in combination with nouns to forge mental space blends from one concept to another – most noticeably through abstract and concrete entities seen in metaphors. In consideration of the extensive use of verbs in the metaphorical setting in English, Goldberg (1995) regards viewpoints as playing the important role of forming constructions which are contrived of "a highly structured lattice of interrelated information" (Goldberg 1995: 5). In light of this position, information is influenced by the viewpoint of the speaker but also of the listener, and so it is beneficial for ideas and concepts to be organized through relevance to other ideas and concepts in the 'structured lattices' of mental spaces which are built upon each person's view (and knowledge) of their language's underlying conceptual framework.

Now that the fundamental details regarding verb involvement in metaphors have been introduced, let us consider additional examples which will further establish our understanding of how verb phrases are presented in the metaphoric context.. Observe for instance the various expressions of *get* as highlighted through the work of Gronemeyer (1999):

(1) Dwellers thereabouts preferred to *get* their apple pies at the local bakery (Jones, `Santa Cruz Run', *Gourmet*. January 1961) (Gronemeyer 1999: 3, her example (1); italics added).

(2) 'Tell me what to *get* her for Christmas.' (Bingham, 'Moving Day', *The Atlantic Monthly*. November 1961) (Gronemeyer 1999: 3, her example (4); italics added).

(3) temper tantrums, screaming, kicking, and hitting will not *get* him what he wants (Ragan, *Teaching America's Children.* 1961) (Gronemeyer 1999: 3, her example (5); italics added).

(4) the board would cooperate so far as possible to *get* the children to where the parents wanted them to go. (*The Oregonian*. 24 October 1961) (Gronemeyer 1999: 5, her example (14); italics added).

(5) Jill: You'd think they'd have hired a car. Jennifer: Well, no. It's part of the deal that they *get* to use Linda's and Robert's car. (*BBC Radio 4*. 7 October 1996) (Gronemeyer 1999: 7, her example 27; italics added).

Admittedly, these examples of *get* sound nearly indistinguishable from one another. English speakers use polysemous variations of the verb *get* constantly, but where does one draw the line of literal and metaphoric uses of this verb regarding the examples above? Does one rely purely on their native English language instincts to determine which clauses belong to each context? A more linguistic approach deems it necessary to investigate the parts of speech within the VP as a whole to determine the influence nouns, specifically, have on the context and, therefore, the interpretation of the verb. From this starting point, Goldberg (1995) argues that the basic units of language are known as "form-meaning correspondences" (Goldberg 1995: 6).

Essentially, in order to identify what a verb means, one must determine what these 'form-meaning correspondences' are in relation to the verb. One approach is forged through the semantic maps specific to the verb, such as understanding that *get* can mean: Possess, achieve, arrive at (stative or locative), allowance (i.e. permission *get*), and so forth. However, these meanings do not aid in determining whether a verb is literal or metaphoric, as one can *get* (metaphorically acquire) *an idea* just as they can *get* (literally acquire) *a new pair of shoes.* Therefore, determining context correspondences to the verb is key, and can be done by taking note of the noun(s) appearing in the clause. With this basic approach in mind, Gronemeyer's (1999) examples of *get* are made somewhat easier to distinguish between literal and metaphorical. For instance, example (1) conveys a literal context due to its inclusion of the literal plural noun, "apple pies" which the plural subject of the clause (the "Dwellers") are said to have

acquired physically. Moreover, the inclusion of possessive *get* provides an additional, contextually-sound source of agreement (i.e. correspondence).

However, example (2) does not present such a noun by which to determine possession of a specific, literal object. Instead, the possessive orientation of this *get* is *implied* through the context in which a *potential* referential noun is suggested (a Christmas gift, likely a literal clausal object). If one is aware of the traditions surrounding this holiday, it is also known that *getting* something for another person usually involves the subject receiving (i.e. they *get* and possess) a literal object noun, making this verb indicative of a literal interpretation via the literal conditions of its context.

Moving forward, example (3) illustrates a scenario in which a child is having a tantrum in order to *get* their way with an authority figure. The difference between example (3) and the first two examples is that the subject of the clause is the child's behaviour. Because of this, it is difficult to determine whether or not the *get* of example (3) is literal or metaphorical as the child may receive a literal object (a toy, candy, et cetera), or perhaps the child is trying to *get* something intangible (such as a permissive *get* as in *getting to play outside*) which is resultative of their behaviour. Therefore, the method of determining verb meaning via its correspondence to a literal or metaphoric noun is not applicable to every situation. Moreover, example (3) shows that the child *getting* their way can point to a metaphoric interpretation, as the child receiving a desired situational outcome (which is, itself, non-literal) means that this *get* is essentially metaphorical.

Example (4) appears to be locative, as *getting* the children to a specified location (i.e. arriving at a place "where the parents wanted them to go") indicates literally travelling somewhere. However, there is yet another problem: This example could mean that *getting* (or coaxing) the children to go somewhere corresponds with the conceptual metaphor LIFE IS A JOURNEY. If the statement in example (4) stems from this concept, then the "board" may be trying to *get* the children to a metaphorical state of being, such as *getting* (instructing) them to be more proficient in a certain skill, which may similarly be desired by the parents. Therefore, this example could be construed as ambiguous – unless transitivity is considered.

Gronemeyer (1999) describes *get* in the context of example (4) as indicating literal, locative "movement [which] can refer to the subject,[…]or to the object[…], depending on whether or not *get* is constructed transitively" (Gronemeyer 1999: 5; italics in original). In this

way, example (4) is transitive as *get* means to move the children (the object) to a physical location, as this situation is being enacted by "the board" (the subject). Finally, example (5) is clearly permissive *get*, as the speaker mentions that the subject is allowed to borrow a car. In this way, the inclusion of the literal noun (the car) shows that the context of this clause is literal, making the verb also literal.

Taking a new direction, Goldberg (1995) analyzes the formations of metaphorical speech in the confines of VPs, while also considering the influences of speaker and listener perspective (or points of view) – including how these factors may trigger specific meanings. This construction grammar approach to understanding metaphorical clauses and their use of verbs posits that constructions, as basic units of language, constitute an additional layer of speech specific to more detailed "phrasal patterning" (Goldberg 1995: 4). These patterns are considered to be true constructions "if something about their form or meaning is not strictly predictable from the properties of their component parts or from other constructions" (Goldberg 1995: 4). Hoffmann (2017) adds that construction grammar entails "morphemes, words, idioms, as well as abstract phrasal patterns" which arise from "conventionalized form-meaning pairings" (Hoffmann 2017: 284, see also Goldberg 1995: 1-5, Sullivan 2007).

Similarly, it is found herein that metaphoric VPs are beneficial examples for analyzing the semantic-guiding contexts (and their verbs) presented within an utterance due to their proposed predictability and other related properties which are not comparable to any other clause in English. However, recall the five examples of *get* noted earlier and how it wasn't always clear which ones were metaphoric and which could be literal. Relying upon one's functional understanding of the English language is a plausible method by which to decipher these examples, but this method isn't one hundred percent reliable. Therefore, the following discussion takes into consideration the cognitive factors at work regarding the role of the listener's construal.

2.4 Cognitive semantics and what we know about construal

Wilson and Sperber (2006) attribute a series of cognitive perspectives to our processing of metaphoric VPs. These perspectives are highly relevant to the current investigation as the speaker's role has thus been noted to be that of carrying specified meanings through the vehicle of metaphor, with VPs being a key example of such expressions noted for purposefully –

although not consciously – guiding the semantic construal of one's audience. The cognitive factors in question are described by Wilson and Sperber (2006) according to the principle that,

> Within [the Relevance Theory] framework, aiming to maximize the relevance of the inputs one processes is simply a matter of making the most efficient use of the available processing resources. No doubt this is something we would all want to do, given a choice. Relevance theory claims that humans do have an automatic tendency to maximize relevance, not because we have a choice in the matter – we rarely do – but because of the way our cognitive systems have evolved. As a result of constant selection pressures toward increasing efficiency, the human cognitive system has developed in such a way that our perceptual mechanisms tend automatically to pick out potentially relevant stimuli, our memory retrieval mechanisms tend automatically to activate potentially relevant assumptions, and our inferential mechanisms tend spontaneously to process them in the most productive way (Wilson & Sperber 2006: 610).

The entirety of this statement serves to inform the current analysis of the phenomenon of construal. Namely, we make assumptions, connections, and determine the most relevant information extremely quickly when someone is speaking to us in order to ensure that we make the correct inference based on the core functions of these related "mechanisms" (Wilson & Sperber 2006: 610). In keeping with this explanation, Wilson and Sperber's (2006) analysis here addresses another key factor for the processing of information from the speaker's role in presenting metaphoric utterances: That is, the speaker already possesses – along with their listener – the same mental spaces and conceptual frameworks (as seen in conceptual metaphors) as already established in the English language. Therefore, both speaker and listener share in the knowledge of these conceptual networks by which to experience metaphorical utterances from both perspectives.

As will be discussed in greater detail throughout the sections to follow, intersubjectivity serves to guide the speaker-to-listener dynamic in such a way that there is plenty being implied to the listener via the speaker's statements, but the listener's responsibility is to internalize what these implications are. The speaker only inherently provides an informative sample, so to speak, while the listener makes instantaneous judgements based on the phrasing being presented to them. More immediately poignant to observe here with regard to the statements made by Wilson and Sperber (2006), and along the same line of thought held by Linell (2009), the speaker provides the general context within which the listener must make inferential choices based on their own schemas as prescribed by the language shared between themselves and the speaker to

extract relevant information (Linell 2009: 222-230).

In this way, the speaker implies the relevant information needed to generate mental space sharing from the source domain to the target domain, while also (in a non-volitional sense) aiding the listener to make their own semantic conclusions according to what their construal experiences dictate. In this way, the speaker and listener are ingenious pragmatists practicing a sort of imply-and-construe discourse within one context or another. By relying upon one's assumptions that the listener will know exactly what is meant by *looking through the eyes of someone else* while describing a scenario dependent upon perspective-taking, for instance, the speaker demonstrates how a listener's resulting construal can be shaped and molded – even if neither of these participants actually contemplates this during speech.

2.4.1 Understanding and intersubjectivity

Intersubjectivity, as it has been briefly discussed in previous sections, highlights how the speaker and listener engage in discourse and take on one another's points of view regarding the underlying meanings of phrases, as well as the act of communication, alone. To define intersubjectivity in greater detail however, Zlatev, et al. (2008) find that "In the simplest terms, intersubjectivity is understood[…]as *the sharing of experiential content (e.g., feelings, perceptions, thoughts, and linguistic meanings) among the plurality of subjects*" (Zlatev, et al. 2008: 1). This definition proposes that we, as individual subjects, experience life in markedly human ways which can extend towards acknowledging these same feelings in other subjects (see also Zlatev 2017).

Following this line of thought, we are capable of finding meaning and inferring the semantics of metaphors based upon our experiences with the target and source domains within. The key to the listener's understanding and the speaker's inherent role in guiding such construal is addressed by Zlatev (2017) as being further demonstrated by embodied intersubjectivity, as well as the conventionalized use of verb and context pairings. According to Gibbs (2017), "Embodiment refers to the ways persons' bodies and bodily interactions with the world shape their minds, actions, and personal, cultural identities" (Gibbs 2017: 450). For embodied intersubjectivity, Zlatev (2017) highlights human development as leading to our understanding of physical sensations, interpretations of those sensations (as in perception), and empathizing how others experience this in the same manner (Zlatev 2017: 175, see also Feldman & Narayanan

2004, Linell 2009). This trait, Zlatev (2017) articulates, begins in infancy and gradually progresses into more mature stages of one's lifespan to develop the sense of self, the sense of "other", and the sense of experiencing a "shared-mind approach" present in intersubjective encounters (Zlatev 2017: 175-176).

Moreover, the majority of our lives are spent in a near-constant state of intersubjectivity. We are actively mingling our subjectivity (self-knowledge) with the subjectivity of others who are engaging in the same experiences, at the same times, in shared locations. When embodiment becomes a factor of this phenomenon, the resulting combination of mind and body are not always physically expressed; they can be experienced in similar ways, however, when the mind responds to the inherently physical nature of verbs (Feldman & Narayanan 2004). However, an individual born without the senses of hearing and/or seeing don't experience the verbs *see* and *hear* (or even *feel* for individuals without the sense of touch). In this way, not all of the five verbs being analyzed herein are accessible to everyone physically, but thanks to phrasing conventionality and contextual inference, they can be accessed conceptually. These are just some reasons as to why verbs appear to be so potent for conveying semantics when a speaker presents them, which results in guiding a very specific construal in the mind(s) of their audience.

Therefore, Zlatev's (2017) accounts of embodied intersubjectivity support what has been discussed thus far regarding the intense relationship the mind and body share, as this experience is prominent through speech. This is most notably found when verbs encourage the listener's mental spaces into making relevant connections from one cognitive locale to the most relevant and experience-based meaning potential available (Linell 2009). Along this line of thought, Carston (2002) alludes to the validity of the pragmatic approach when analyzing the speaker's intentionality during discourse and the listener's ability to construe the meanings laced within. In the true spirit of pragmatism, Carston (2002) maintains that "the role of pragmatics [from a philosophical stand-point] is essentially to siphon off any elements of understood meaning that might complicate the semantics and interfere with the hoped-for parallels between logic and natural language. The proposition meant is a conversational *implicature* of implicatures, which are the result of such extra-linguistic considerations of the utterance" (Carston 2002: 128; italics in original).

However, this view is rooted in the philosophical origins of pragmatics rather than where it has led cognitive linguistics today. Carston's (2002) review of this perspective follows from

this starting point to later discuss the modern view of this tradition, but another author has made similar observations to draw greater attention to where pragmatics and cognition meet in speech analysis. According to Fischer (2017), the main aspects specific to pragmatics in the context of language-based cognitivist research "include, crucially, the relationship between speech events and their contexts, language usage, verbal (and multimodal) interaction, larger units such as text, and spoken discourse" (Fischer 2017: 330). Fischer (2017) further asserts that this relationship between the cognition of a speaker and their observable speech acts demonstrates not only how the mind functions in terms of its conceptual structuring (specifically noting Fillmore's (1976) frame semantics) in accordance with a given context, but also how the intentions to convey such meanings are expressed by a speaker in discourse (Fischer 2017: 330-331).

Understanding, then, finds itself linked to the verbs appearing in metaphor, as they demonstrate intended meanings implied through embodied intersubjectivity. This discussion leads us ever deeper into the territory of the speaker's guiding speech potential, and illuminates more on what Carston's (2002) involvement in this area of cognitive linguistics reveals about the way we speak and the way we sift out what has really been said. Taking a closer look at speaker intentionality, and what exactly speakers are 'giving' to listeners from which to construe meaning, the following Subsection 2.4.2 identifies how this factor contradicts one core aspect of the pragmatist view – while asserting that, nevertheless, speaker intentionality is an undeniable component of construal.

2.4.2 Speaker intentionality

The observations of mental spaces, prototypical uses of verbs within metaphors, theories, and the topic of metaphor as a linguistic and cognitively creative phenomenon brings us to another observation taking strides in the literature of recent years; primarily, the notion that much of our understanding during metaphor production and perception is "not *purely* cognitive" (Linell 2009: 235; italics added). Throughout Linell's (2009) work, it is discussed how the speaker's statements act as guiding influences most prominently by providing the listener with the necessary materials which initiate mental space sharing – with some degree of ambiguity also potentially taking place. Ambiguous clauses may arise between people through misunderstandings, impeding environmental factors (such as being in a loud room and only hearing a small portion of an utterance, then making assumptions based on that sample of

information), and so forth. This is common in everyday speech, and shows that meaning potentials are also dependent upon what the listener construes from what they actually perceive – not just the speaker's implications.

Another perspective brought to light through years of testing and hypothesis development has been presented by Bowdle and Gentner (2005), who note that listeners do not appear to devote any (substantial) processing time to make sense of a speaker's phrasing during metaphor use versus literal contexts. It is important to keep in mind that there is the potential for speakers to imply something while the listener may only construe a portion (or none) of this information when the message is impeded by some external or internal factor (like those mentioned above). Referring to the processing speed of metaphoric versus literal construal, this is particularly so if listeners have encountered certain metaphors before (Bowdle & Gentner 2005: 197, see also Bergen 2005, Sullivan 2017, Linell 2009, Feldman & Narayanan 2004, Holyoak & Stamenković 2018: 644). Looking further into the work of Bowdle and Gentner (2001), it is important to identify what will be referred to as novel metaphor and conventional metaphor in the discussions to follow. These authors define each type of metaphor as follows:

> *Novel metaphors* involve base terms that refer to a domain-specific concept, but are not (yet) associated with a domain-general category. For example, the novel base term *glacier* (as in "*Science is a glacier*") has a literal sense–"a large body of ice spreading outward over a land surface"–but no related metaphoric sense (e.g., "anything that progresses slowly but steadily"). In contrast, *conventional metaphors* involve base terms that refer both to a literal concept and to an associated metaphoric category. For example, the conventional base term *blueprint* (as in "*A gene is a blueprint*") has two closely related senses: "a blue and white photographic print in showing an architect's plan" and "anything that provides a plan" (Bowdle & Gentner 2001: 229; italics in original).

This statement introduces the basic identifying features associated with both novel and conventional metaphors, but there appear to be discrepancies when the authors present examples pertaining to each. For instance, a glacier may in fact be considered a metaphor for a large, difficult task (such as a major scientific undertaking), and does not appear to move very quickly in any direction – as many researchers can attest. Additionally, what do Bowdle and Gentner (2001) mean by a 'domain' in this case? What about the blueprint example: Is this description truly accessible to the general public? Is it used often enough (while spanning most demographics) to be noted as conventionalized in the conceptual framework of the larger

population? These examples seem to present more assumption-based observations of what fits into the novel and conventional definitions of metaphors. To better unpack these notions, investigating how the speaker's ability to use metaphoric speech with more common conceptual domains in mind is a good place to start.

Along this line of thought, it appears as though the semantic construal of the listener is shaped and molded by the speaker, but not in the sense that the speaker conveys an idea in its complex entirety with nothing left for the listener to construe. Rather, according to the observations of Linell (2009), the speaker uses words and even instances of symbolism (metaphors and figures of speech in general) to "*prompt* people to make meaning" on a situational basis (Linell 2009: 224; italics added). The key concept to consider here when analyzing Linell's (2009) findings, specifically, is concerned with the situational nature of VP use and the existing clues indicating speaker intentionality therein – as this is where discussions thus far pertaining to context (i.e. either metaphoric or literal) become quite instrumental for understanding how the speaker acts as a guide. Consider the perspective taken by Lakoff and Johnson (1980b), who suggest that "the only similarities relevant to metaphor are *similarities as experienced by people*[…]Our experiences will (1) differ from culture to culture and (2) may depend on our understanding one kind of experience in terms of another, that is, our experiences may be metaphorical in nature" (Lakoff & Johnson 1980b: 154; italics in original).

This discussion highlights notions concerning i) the transference of information from the speaker's intended semantics to the construal of their listener, ii) the sharing of mental spaces to make this happen, and finally iii) accomplishing this sharing of information based on the physical, emotional, cognitive, and cultural experiences which have been learned and encouraged throughout the respective lifespans of both the speaker and the listener. In conjunction with this vein of thought, there exists a series of schemata which have been introduced into the speaking patterns and semantic reasoning of English speakers. This observation serves to usher in the next phase of the present analysis: The role of inferential schemas in the listener's resulting construal.

2.4.3 Inferential schemas

Inferential schemas – or more generally, "schemata" – are defined by Anderson (1978) as being the "knowledge [which] is incorporated in abstract structures that have certain properties. These structures will be called schemata in deference to Piaget (1926) and Bartlett (1932), who

introduced the term to psychology" (Anderson 1978: 2). The reference to any inferential element presented in one's schema can be understood as the backdrop against which a listener's construal regarding the meanings of metaphors are upheld. For instance, when someone introduces a commonly used metaphor such as *I'm at a crossroads in my life right now*, the listener's pre-existing 'structure' for understanding the true semantics of this clause allow them to infer that *crossroads* in this case means *a decision is about to be made where at least two options* (metaphorical 'roads' from the conceptual metaphor, LIFE IS A JOURNEY) exist. These connections shared between inferential schemas and metaphoric conceptualization make Anderson's (1978) observations instrumental for the development of the present work. This is particularly evident when considering how inferential schemas for verbs are construed in relation to context.

Another central aspect of cognitive linguistic theory is known as one's image schema. Gibbs (2017) states that "The source domains in conceptual metaphors are primarily image-schematic because they emerge from recurring patterns of embodied experience. Image schemas can generally be defined as dynamic analog representations of spatial relations and bodily movements in space (Johnson 1987)" (Gibbs 2017: 452). Image schemas are also developed throughout the lifespan of an individual, and provide both speaker and listener with a starting point by which to experience conceptualized meanings. According to Gibbs (2017), an image schema example includes "SOURCE-PATH-GOAL, which underlies the JOURNEY source domain, emerges from a variety of bodily experiences, such as when a person starts moving from one point toward another along some path with the intention of reaching a specific destination or whenever we reach out to grab hold of an object (i.e. reaching from a starting point, moving along a path, reaching and grabbing the object), or when we move our eyes from focusing on one object in the world across to another (i.e. moving from a source or starting point along some path to reach a goal)" (Gibbs 2017: 452).

These inferential and image schemas are foundational for the listener to be able to interpret meanings which are contextually and semantically metaphorical, but rely upon literal nouns and verbs. Without a reliable and well-reinforced inferential or image schema for the listener to reference, they may have little chance of achieving the construal that is intended by the speaker to make sense of the relevant semantics. Nor would the speaker necessarily be able to understand and inadvertently guide the listener if they, too, did not possess some degree of experience with the repetition and reinforcement of metaphors and their schematic origins (noted

also in Anderson 1978, Wilson & Sperber 2006: 613-615).

It is important to address that inferential schemas are, indeed, highly instrumental in establishing and producing form-meaning connections while processing metaphors, but this is not the whole story. Challenging the notion that metaphors rely strictly upon both the listener's and the speaker's schemata built upon metaphors previously experienced, Holyoak and Stamenković (2018) note the findings of past studies which suggest, overall, that "for more familiar metaphors, categorization is operating. But from the other side of the debate, proponents of the categorization view (and of conceptual combination as the underlying process) have acknowledged that a wide range of metaphors require some more complex process, most likely analogy" (Holyoak and Stamenković 2018: 657). Furthermore, recall that the listener may experience other factors which impede what they hear or construe from the utterances of a speaker, at which point there may be the need for additional probing and semantic investigation on the part of the listener. In this way, Holyoak and Stamenković (2018) assert through their statement above that there are situations in discourse which call for more complex processing to occur – especially for more unfamiliar metaphoric statements.

In essence, the role of analogy (and recalling previous discussions regarding Relevance Theory) in combination with the listener's and speaker's reliance upon their respective inferential schemas are utilized to hone the semantics to be gleaned from any given VP – whether it is conventional or completely new to the conceptual maps available to the listener. This also depends upon the extended (polysemous) interpretation of the verb being implied to the listener. Moreover, this approach has been supported, again, by the work of Gentner and Bowdle (2001) as they note that

> …metaphoric categories are created as a byproduct of the comparison process and may be stored separately from the original target and base concepts. If a hearer never again encounters a metaphor that generates the same metaphoric category, then the abstraction may eventually decay. However, if a given metaphor base is repeatedly aligned with different targets so as to yield the same basic interpretation, then the abstraction will not only gain in stability, but may also become conventionally associated with the base term. At this point, the base term will be polysemous, having both a domain-specific meaning and a related domain-general meaning (Gentner & Bowdle 2001: 228).

Thus, the notions brought to light in this section demonstrate how metaphor comprehension on the part of the listener is just as vital as the intentions and guiding attributes of an utterance.

2.5 Summary

As noted throughout this chapter, the influences of intersubjectivity, embodiment, verb use, metaphoric versus literal discourse contexts, pragmatic elements of speech, and the cognitive approach to implicative and schema-based construal have spanned several years of research and speculation. Such foundational discussions have been encouraged via the work surrounding meaning and cognition as addressed by Lyons (1977), Fillmore's (1976) frame semantics, Lakoff and Johnson's (1980a, 1980b) analyses of conceptual and linguistic metaphors, Fellbaum's (1990) discussions of verb polysemy, Wilson and Sperber's (2006) Relevance Theory, and Feldman and Narayanan's (2004) Neural Theory of Language, to name a few.

The study of language under the microscope of the cognitive linguistic framework provides the present analysis with the insightful perspectives and findings needed to better inform the chapters to follow. By highlighting these prominent works within the cognitive linguistic field, broad discussions pertaining to the speaker's use of language to convey their intended semantics to their audience members have been addressed with the intention of establishing an informative foundation upon which the current study will continue to build. Thus, Chapter 3 follows below, as it identifies the data sources consulted for observing construal and related discourse phenomena while formulating the methodology by which the data will be managed.

Chapter 3

Data and Methodology

The present chapter introduces the corpora being consulted for the purpose of analyzing verb use among speakers. Along with this introduction to the data sources, the current chapter also investigates why the Santa Barbara Corpus of Spoken American English (SBC) and the Corpus of Contemporary American English (COCA) have been chosen for the purposes of this study. It is further noted herein how the data will be analyzed according to the methodological approach employed throughout the chapters to follow. This methodology includes constructing two tables which will aid in noting how a speaker is using the verbs *get*, *grasp*, *hear*, *see* and *feel* in their respective VPs.

As mentioned in Chapter 1, this study focuses on the root forms of these five verbs, but to analyze the inflected forms is expected to not only produce more tokens, but also present a detailed account of subject-based speech behaviours in a clause, including additional findings related to stance taking (particularly with regards to tense inflection). Another prediction for the resulting use of inflected verb forms involves higher rates of transitivity being prominent. This study seeks to determine the semantic and dialogical influences surrounding verb root forms being used in a corpus to primarily note contextual phenomena, and in keeping with identifying how these forms are being extended generally. Following this narrative, Section 3.1 describes the corpora as well as how their formatting and related accessibility factors have allowed for a closer look into the speaker's general mindset, patterning of speech, and use of the five main verbs as they appear in dialogue. Additionally, Subsection 3.1.1 investigates the motivating factors behind utilizing the corpus-based approach, while focusing on the format, detail, and reliability of recorded conversations – including the challenges and benefits appertaining.

Finally, Section 3.2 addresses the initial discrepancies between the SBC and the COCA. It is further noted in Section 3.2 why the focus for this study has primarily been centred upon the SBC as opposed to the COCA. One reason being that the COCA relies upon more written and scripted sources, whereas the SBC is much more organic and natural in the way that the majority of the participants are recorded in a casual environment. Although, some exceptions to this casual nature of the recordings are evident through sermons and information sessions which the speakers have more than likely rehearsed and trained for before the recordings have taken place. Now that these points have been introduced, let us explore the motivating factors which have

encouraged the present study to rely upon American English corpora and why a corpus-based approach is significant.

3.1 American English corpora

Before addressing the specific corpora being consulted within the present study, it is important to define corpus linguistics, itself, and what this approach to cognitive linguistic research entails. Semino (2017) defines corpus linguistics as "[involving] the construction of large digital collections of authentic texts (corpora) and their investigation through dedicated software tools[…]. The methods of corpus linguistics were initially primarily applied to the study of lexis and grammar, but have recently been extended to a wider range of areas, including discourse analysis, translation studies and (first and second) language acquisition, as well as other branches of the humanities and social sciences" (Semino 2017: 463). Therefore, the corpus-based approach involves several types of linguistic research, including areas which have been expanding and developing over the last few decades, such as metaphor and VP discourse analysis. Shutova, Sun, and Korhonen (2010) also utilize the corpus-based approach for the same reasons identified here, but their study has been tailored to analyze metaphor and verb use among speakers of English in Britain. This point serves to illustrate that corpora use among researchers of metaphor is widespread and reliable in the field of linguistics.

The main corpus being utilized for the purposes of the current study is known as the Santa Barbara Corpus of Spoken American English (SBC). This corpus contains a total of sixty recordings obtained from field work conducted by the University of California's Santa Barbara Department of Linguistics (Du Bois et al. 2000-2005). Its files appear in the form of numerical designations (e.g. SBC 001, SBC 002, etc.) and corresponding title names. Each title name is based upon the topic being discussed by the participants, such as SBC 001 *Actual Blacksmithing.* This file's numerical designation shows that it is the first file in the database, while the title *Actual Blacksmithing* provides a glimpse into the discussion being held. The description specific to SBC 001 *Actual Blacksmithing* appears on the website's home page as follows:

> This is a conversation recorded in rural Hardin, Montana. Mae Lynne is a student of equine science, and is the main speaker. She is telling Lenore (a visitor and near stranger) about her studies. Doris, Mae Lynne's mother, is doing housework, but joins the conversation near the end to discuss friends of their family (Du Bois et al. 2000-2005).

The participants, conversation topics, and environment are noted in the SBC's descriptions which are included on the corpus website[2], of which twenty-three files are dyads, eight are triads, and some consist of one main speaker (usually a lecturer, pastor, or presenter at an event), or groups of four or more people. There is a total of 249,000 words recorded in this corpus, and the total time of each recording ranges from approximately fifteen to thirty minutes in length. These recordings have been collected from various environments and people across the United States of America. Other specifications of the SBC files include name assignments given to each person, which have been changed to protect participant identity. The speaker is determined in the present study based upon which person speaks initially, whereas the listener is noted as the following person to speak on a VP-to-VP basis. The SBC also includes timestamps written on the left-hand side of the screen which record how long each sentence takes to be said, and when the next person begins speaking.

Such clear specifications aid in keeping up with who is speaking and when – even when speaker-listener overlap occurs. Additionally, the SBC website consulted for this study is open-access and user-friendly in the sense that using the (ctrl + f) mechanism on any computer causes a search bar to appear. Once the user enters a single lexical item they would like to find (or an entire VP), the SBC highlights each instance of the item or phrase entered. However, some operations of this website are not entirely straightforward. For instance, it does not have its own search bar already in place for the user, as well as the user having to be rather specific with creating search specifications. For example, the SBC includes within its transcribed option the appropriate vowel markings attached to vowels exhibiting elongation and other such phonological properties. The symbols associated with these specifications make the search for many words quite difficult, as one may enter their search word in the search bar, but the results are interrupted by an additional symbol near the vowel within the word, causing some results to not appear.

Overall, by analyzing the transcription files of the SBC, its research potential is evident for the purposes of this study. However, the audio files also available through this corpus have not been utilized here, as the present work is concerned more so with determining verb use within certain contexts. Therefore, the transcription format allowed for this information to be

[2] Accessed through https://www.linguistics.ucsb.edu/research/santa-barbara-corpus.

mined with relative ease. Although, hearing the phonological cues of the speaker could be useful if one were to investigate how tone of voice, stress patterning, and related factors may serve to guide the construal of listeners in addition to context (but is beyond the scope of the present work).

The linguistic value, as well as the decipherability of such a corpus, provides a series of benefits for analyzing when, how, and why verbs appear metaphorically versus literally. These observational opportunities provide the current analysis with the potential to pinpoint the inferential processes utilized by the listener and their resulting construal of metaphoric versus literal VPs. To better illustrate the general arrangement of the SBC website itself, observe the following screen image taken directly from this source as it shows how searching for the verb *get* appears as a highlighted word on the website:

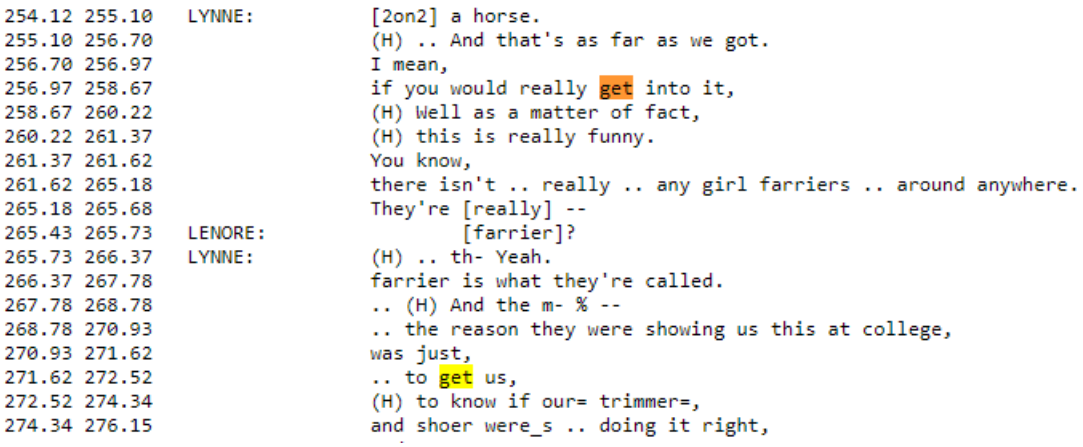

Figure 1: Verb Search get *in Progress – from the file entitled* SBC 001 Actual Blacksmithing

Figure 1 demonstrates how the SBC website is configured, including the timestamps which can be seen on the left-hand side of the screen image, the highlighted verb *get* which appears throughout the transcribed dialogue, as well as the names associated with each speech participant (which are also included on the left-hand side of the screen). Figure 1 also shows how the ability to search for each verb being analyzed within this study is quite manageable and well organized. This format provides the necessary structure for seeking out each appearance of the five main verbs, while showing when the next participant begins responding to the speaker. Additionally, the discourse context can be determined by looking back and noting what else the speaker has stated in order for the researcher to assign each use of *get* to the context of best fit. In

this way, Figure 1 indicates that the speaker, “Lynne,” is discussing her work involving horses, while the listener, “Lenore,” participates by asking what a “farrier” means.

By being able to follow along with this conversation, it can be inferred that the speaker is using the two instances of *get* from Figure 1 in certain ways based upon the VP context. Therefore, the first appearance of *get* in Figure 1 is metaphorical, as the speaker is discussing *getting into a topic* (as in learning and being involved in it) regarding horse care and maintenance tasks. The second instance of *get* is also metaphorical, but in the sense that the speaker indicates that her instructors are *getting* (coaxing, encouraging) her and her peers to pay attention to their duties. Thus, this use of *get* is construed to mean *prompting* by the instructors. Furthermore, what is meant by ‘format’ in this section (as well as in those to follow), denotes how the website, itself, is structured regarding the layout of each file in the webpage when such a search is in progress. For the purposes of the current study, this form of research is ideal as it provides opportunities to seek out patterns being used by speakers and listeners, as well as to identify when one participant suddenly switches between topics, VPs, and context as well as how the listener reacts and reciprocates in turn.

The other corpus which has been briefly consulted for the sake of variety in contextual exploration and speaker or writer dynamic is the Corpus of Contemporary American English (COCA). This corpus’s website[3] appears as follows when a search is in progress:

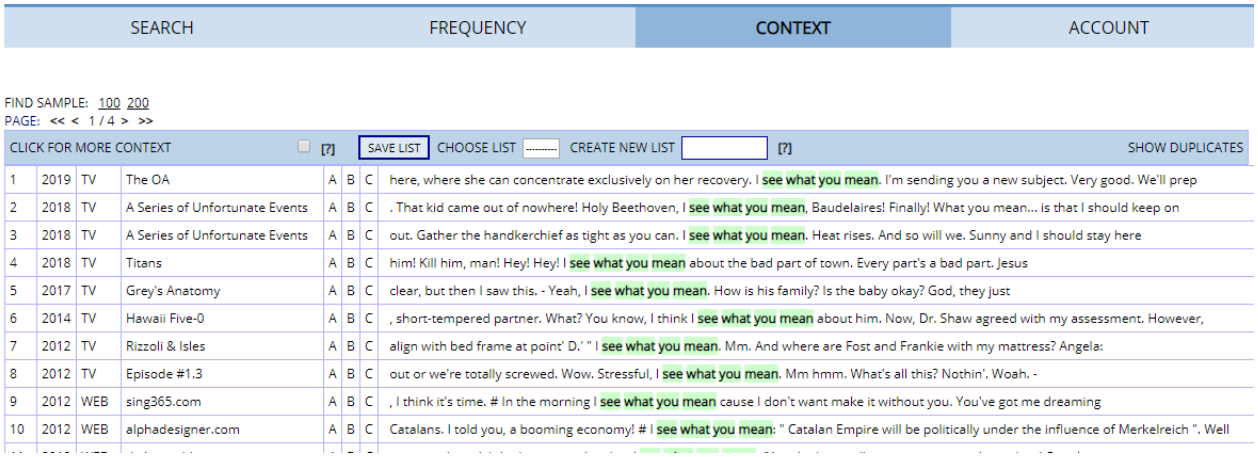

Figure 2: *Verb search* see what you mean *in progress within the COCA website*

[3] Accessed via https://www.english-corpora.org/coca/.

Figure 2 shows how the COCA requires a more detailed search to be made, as the highlighted segment, "*I see what you mean*" has been entered as a whole clause rather than a single lexical item search. The format of this corpus displays its own search box on the website's main page, and allows the researcher to enter specific sentences in order to find scripted sources which use these sentences verbatim. The sources noted by this corpus appear on the left-hand side of the screen, and, as Figure 2 shows, there are additional tabs along the top of the screen which indicate (from left to right) the "search", "frequencies", "context", and so forth. The COCA is also organized according to one's account identification in order to grant extended access to the data. It should also be noted that the "context" tab on this website does not mean the metaphoric or literal context specific to one's search entry. Rather, this means the context of the source (such as television, radio, et cetera, and includes the calendar date of source's publication or appearance).

Figure 2 also demonstrates how the COCA uses a different system to that of the SBC for tracking verbs and how they appear in samples of dialogue (i.e. in television, literary sources, and on the internet). This format is certainly useful when looking for examples of metaphoric and literal uses of verbs as they are used in more scripted speech environments. Therefore, the COCA is consulted for added depth when in need of more examples than what is seen in the SBC, and provides several opportunities to observe metaphoric versus literal VPs – specifically regarding the verb *grasp*.

For further analysis, the COCA provides more background information regarding the sources from which each VP originates. For the sake of the current study's interests, examples will be taken from the SBC unless explicitly labeled as being from the COCA. For now, let us discuss why the corpus-based approach has been implemented for the purpose of observing the speaker and listener dynamic and how answers to the research questions posed in the introductory sections find their footing through a well-established corpus.

3.1.1 Why a corpus study approach?

Corpus research is further highlighted by Semino (2017), who states:

> Corpus linguistics is an approach to the study of language that is not associated with any general or specific theory. However, the use of corpus methods rests on the assumption that actual linguistic behavior is not only worth studying systematically,

> but also needs to be accounted for by any theoretical model of language. As such, corpus linguistics is particularly consistent with the usage-based models of language that have been proposed within cognitive linguistics (Semino 2017: 468).

This description of corpus linguistics entails that it is a method which spans the types of analysis involved in cognitive linguistics, including work involving metaphor. This characteristic synonymous with the corpus-based approach employed by the current study aids in seeking out how certain verbs are presented, which contextual cues exist to indicate how the verb should be construed, and how the listener responds, including what these responses mean (see also Cameron 2007).

As previously mentioned, the SBC source for reviewing actual speech as it appears organically among groups of friends, business associates, and family members allows for one to note how VP contexts become apparent, how the conversation makes use of the five verbs of interest to the present study, and why these factors are instrumental in inferential processing. Another benefit of looking into the speaker-listener relationship with literal and metaphoric VPs through the lens of a corpus is by noting how the researcher and the participants are not aware of one another. That is, the researcher has had no contact with the participants in the SBC, although, the researchers collecting the data recordings have had this participant contact.

Along this line of thought, sociolinguistic studies note that there is a possibility for observer effect to take place; potentially causing the participant to speak differently when a recording device and an unfamiliar person are present (Wilson 1987: 161, Labov 1978). The risks of such an occurrence having an impressionable effect on the results of the current study are determined here to be minimal to nonexistent. This is due to the present study's focus being unrelated to the speaker's use of tone and/or gesture. Such sociolinguistic factors are more likely to be influenced by the presence of a researcher and recording device as opposed to the main lexical items being used, such as the verbs in question.

However, these factors also present disadvantages to be addressed regarding the close reliance upon the COCA and the SBC, specifically. One such example is the fact that the researcher cannot observe the gestural, social, and emotional cues noted earlier which the participants in the recordings may be presenting – keeping in mind that these recordings are available via two modes of media: Audio and transcription. Unless one is to consider the sources cited by the COCA database which, as the reader may recall, makes use of televised sources for

constructing this corpus, there is no way for the researcher to know for certain that the individuals in the SBC are utilizing any body language to carry their semantics to the listener *in addition* to their use of context and certain verbs.

This factor is perhaps the greatest disadvantage to the study at hand, as it is known that the speaker and listener are interacting within the same room – unless a phone call conversation is taking place, such as SBC 028 *Hey Cutie Pie* and SBC 052 *Oh You Need a Breadbox*. With the exception of these two SBC files, the participants can see one another and, therefore, observe and interpret any physical indications which can also convey the speaker's intended semantics (e.g. pointing to an object or another person). However, the focus of the present study is centred upon noting the verbs being used and their VP contexts, so any visuo-spatial cues (or lack thereof) still do not interfere with the results.

The other disadvantage associated with relying upon these two corpora is the realization that each corpus presents the researcher with rather pertinent decisions to be made based (primarily) upon the researcher's own native knowledge of the English language. In addition to this native understanding, the researcher also possesses linguistic expertise and training regarding discourse structuring, knowledge of the cognitive linguistic framework of research, and an understanding of the theory of metaphor by which to conduct a technical analysis. Some of these attributes have been mentioned briefly in Chapter 1, but it is a point which presents a challenge to the absolute accuracy of the results to be presented in Chapters 4 and 5 later.

For instance, the researcher adheres also to the Miriam-Webster Dictionary for the sake of additional clarity and accountability to ensure that the verbs being analyzed are, indeed, categorized as being presented in either the literal or metaphorical sense. Yet, it is a possibility that there are instances where, despite the researcher's caution and attentiveness, any one specific verb is difficult to categorize. This may be the case due to a verb appearing only briefly and with unsubstantial contextual indications for making a strong categorical decision. These contexts are more likely to be known to both the speaker and the listener in the recording, but it is not always clear to the researcher which context is being implied.

To remedy any such occurrence, these instances are addressed as *Ambiguous*, and presented to the reader as they stand, with examples taken directly from the SBC to describe any further curiosities this kind of categorization may present for the results to follow. In the meantime, the use of corpora poses several opportunities by which to observe the speech patterns

of speakers and their listeners. Taking this approach in stride, let us discuss some initial explorations into these English corpora and note any additional points which will factor into the methodology of the present analysis.

3.2 Explorations into the English corpora

One way to ensure a manageable flow to the current analysis includes a collection of tables which have been devised to show numerical values pertaining to each respective verb as they appear in each of the sixty SBC files (refer to Tables 1-2 in Chapter 4). For now, let us consider the initial search procedure utilized for following examples derived from the SBC, specifically. First, the website is accessed, and a transcription file is chosen which is labelled under "Text" as "TRN." After choosing a file (starting with SBC 001 *Actual Blacksmithing*, and so forth), it is opened, and the search bar is produced by the researcher operating the computer. From here, the verb being consulted is entered into the search bar, which then triggers each use of that verb within the writing on the screen to appear as a highlighted word (in orange when it is recognized by pressing the "enter" key on a keyboard, but is otherwise highlighted in yellow throughout the rest of the transcription page). For example, *get* can be entered into the first file's search bar.

Each token of this verb for the SBC 001 *Actual Blacksmithing* file is then counted on a separate sheet of paper. These tokens are recorded initially on this physical copy as tallies on a table. Each verb token (or tally mark, at this stage) for *get, grasp, hear, see,* and *feel* is added to one of three columns: *Metaphoric*, *Literal*, or *Ambiguous* – with only one verb appearing in one of the categories at a time. So if *get* is encountered and it is difficult to tell which context (literal or metaphorical) it should belong, it does not get counted twice (as in, this single verb does not receive one tally for metaphorical and one for literal). Instead, this verb would be marked as one *Ambiguous* token. These columns, of course, represent the discourse contexts of the VPs hosting the verb in question. This distinction is further accomplished by observing what is said before, during, and after the main VP. The tally sheet format of token counting is repeated for each file, and for each of the five verbs appearing within. Thus, for each individual file, five rows (one for each of the five verbs) are met with three columns (the contexts) to create one table per SBC file.

From here, these tables are combined electronically by adding up the total tokens of *get, grasp, hear, see,* and *feel* to form one table, known here as Table 1. Once these totals have been added to Table 1, the researcher is able to glean from it the total tokens for each respective verb,

as well as in which contexts they are used. To illustrate further, below is a sample of a search within the first file of the SBC, with the occurrences of *get* bolded and italicized by the researcher for emphasis:

(6) SBC 001 Actual Blacksmithing

186.22 187.39	(H) That's not bad,
187.39 188.78	but sometimes you can ***get*** it really bad.
188.78 190.75	You can really make a horse really bad.
190.75 191.89	(H)= And they m- --
191.89 192.59	you know then=,
192.59 193.30	% they have to,
193.30 193.70	like,
193.70 195.72	... (H) keep em (Hx),
195.72 197.43	... away from anything,
197.43 197.73	you know,
197.73 199.41	***get*** em really in the so=ft ground,
199.41 199.66	and,
199.66 201.12	.. no= .. hard pebbles,
201.12 202.91	or hard .. clods of dirt or anything?
202.91 204.03	(H)= So %,
204.03 206.35	... (%Hx) (TSK) (H) I don't know.
206.35 208.55	I'm= .. a little scared .. about doing it yet.
208.55 208.94	you know,
208.94 210.06	I ***get*** em really long.
210.06 211.16	I mean they're still long.
211.16 212.26	.. When I ***get*** done with them,
212.26 213.58	(H) <SM A lo=t of times,
213.58 214.41	like I'll ***get*** done,
214.41 215.21	and I'll think I'm done,
215.21 215.76	and I'll look at- --
215.76 217.18	look down at the horse's hoof SM>,

In this example, *get* is used five times, and with the speaker's statements being clearly accounted for with the use of timestamps on the left-hand side of the file page. Here, the speaker is describing the literal topic of maintaining the hoof health of a horse, as well as providing the listener with a general job description of a day in the life of a farrier. This sample provides the current analysis with some initial trends taking place when a speaker uses the verb *get* in the overall literal context which is suggested through the general topic of the conversation, and yet this verb is often figurative in its semantics.

This is where previous discussions denoting the challenges of distinguishing between literal and metaphoric find their footing: The speaker gives plenty of indication that the topic is literal, yet the verb being used exhibits varying polysemy. Essentially, there are instances here of *get* in which the horse's hooves 'arrive at' or 'achieve' a certain state of being (as in, being long and not well maintained), while also observing how the speaker describes that they will '*get* done with' the task at hand (i.e. using *get* to describe achieving a task, or arriving at a foreseeable conclusion of events).

Following the methodological framework of the present study, the contexts, number of tokens, as well as the percentage of token use per context for each of these uses of *get* in example (6) are then placed in either the *Literal, Metaphoric,* or *Ambiguous* column of Table 1 as seen it its totality below:

Table 1: Context-specific verb token and percentage totals from the SBC data

	Context: Tokens and Percentages			
	Metaphorical	**Literal**	**Ambiguous**	**Totals**
Get	678 (76.7%)	184 (20.8%)	23 (2.6%)	885 (49.7%)
Grasp	0	0	0	0
Hear	10 (14.5%)	49 (73.1%)	8 (11.9%)	67 (3.8%)
See	362 (48.8%)	351 (47.3%)	29 (3.9%)	742 (41.6%)
Feel	84 (95.5%)	4 (4.5%)	0	88 (4.9%)
Totals	1,134 (63.6%)	588 (33.0%)	60 (3.4%)	1,782 (100%)

From here, the values are addressed and discussed according to comparisons involving frequency of use pertaining to each respective verb, and how the speaker's VP onset, verb, and overall context is conveyed. Furthermore, this process concludes with noting how the speaker uses other parts of speech (nouns and adjectives, primarily) to introduce concrete and abstract concepts to their VPs and the resulting contexts conveyed. In turn, this process provides the information needed to observe and analyze construal and the utterances being used to unintentionally encourage the intended semanticity of the verbs used.

Furthermore, the current study relies upon such examples to note how far the semantic extensions of these verbs have reached, how semantic maps are drawn for them based on speech patterns seen in the data (context-to-verb correspondences), and which inferential processes are

taking place at any given time. On another note, the author's decision to employ the use of American corpora is a point worth exploring further. There is no shortage of English-based corpora (especially so with world wide web resources, contributing researchers, and professional applications which provide extensive accounts of recorded English conversations).

However, the benefit of working with the SBC is realized through the ways in which this corpus has begun to circulate among current linguistic studies not dissimilar from the vein of research taken by the present analysis (see Sanford 2008, Aijmer & Rühlemann 2015). For this reason, the current study features this corpus as the main stage by which to observe the performance of the five key verbs at hand, but other reasons also persist for the use of the SBC. These reasons are concerned with the accessibility, organization, and manageability of this resource. Such points have already been mentioned via comments pertaining to the clarity and simplicity of the corpus, the access granted without further subscription or unrelated commitment to using the webpage, itself, and the agreeable size of the files compiled in their totality.

The final benefit allotted by utilizing the SBC is the fact that it is derived from actual people having largely unscripted, uncensored conversations. This reason, by far, allows for the current study to provide support for its claims regarding: i) gauging the extent to which verbs appear literally versus metaphorically, ii) patterns taking place in the discourse context which the speaker may use which guide the construal of their listener based on the verbs therein, and finally, iii) determining if semantic maps can be drawn for certain verbs to aid in understanding both their central and extended meanings.

In summary, the present chapter has outlined the corpora being consulted, the data to be mined from them, the advantages and disadvantages with using these corpora, and the methodology employed for analyzing the data within. Furthermore, the methodology has been described as following the steps of: Electronically typing in one of the five key verbs into a corpus' search bar, recording the total number of these verbs' appearances, dividing these verbs into their semantic (contextual) columns of best fit, and analyzing the VP context as a whole and what it reveals about construal. Additionally, the numerical recordings of these verbs are not limited to what is being said by the speaker, rather, any person in the recordings using *get*, *grasp*, *hear*, *see* and *feel* are counted. By keeping track of the speaker (i.e. the first person to begin speaking at any given time) and their listener (i.e. the next person to speak/respond to the

speaker's initial statement) via the names attributed to each party in the SBC aids in noting where these verbs take place, and will allow for contextual comparisons to develop.

Chapter 4 below analyzes the data provided by both the SBC and the COCA with references to relevant information which has been developed through the observations made in the first two chapters of the current analysis, along with additional perspectives not yet explored. Chapter 4 introduces promising observations and results which support the notion that the speaker is guiding their listener through the use of verbs, among other semantically relevant discoveries. These findings also note how the metaphoric context is highly utilized in VPs which employ the five main verbs, as well as the differences between them; showing that semantics are being inferred and construed.

Chapter 4

Analysis of findings: A discussion of the role of inferential schemas when construing metaphorical versus literal verb phrases

Thus far, it has been noted in Chapters 1 and 2 that the speaker's utterances act as a guiding influence for the listener's construal. Such observations have included references to various historical and theoretical developments surrounding metaphoric versus literal phrasing, as well as discussions of verb polysemy. As a result, various perspectives have arisen involving the conceptual framework (as seen in Relevance Theory and construction grammar), and the Neural Theory of Language (NTL). It has also been noted that speakers and listeners maintain mental space sharing through embodied intersubjectivity, including how these factors encourage the use of specific verbs. Similarly, the five key verbs *get, grasp, hear, see,* and *feel* have been hypothesized to help the listener construe the semantics of VPs with the aid of context.

Additionally, it has been stated in Chapter 3 that the methodology of this study is based upon quantifying the corpus-based data involving speaker-to-listener conversations as the five key verbs of interest are used in specific contexts. These conversations aid in identifying which verbs appear most often, in which contexts they belong, and why some are ambiguous. Chapter 3 has also noted the benefits and potential limitations experienced when consulting corpora for analyzing VP-based speech involving metaphoric versus literal clauses. Considering these discussions, the focus of the present chapter is to analyze the data which is primarily derived from the SBC. This phase of the analysis begins by reviewing the initial findings in the form of verb tokens and their patterns of appearance, as seen in Section 4.1.

Section 4.2 shows token frequencies and VP examples in the form of tables. From this point, the study identifies key resources from the field of cognitive linguistics which provide supporting evidence to align the current work's findings shown through its critical analysis of the corpora with those noted by others. Additional data examples noted in the COCA provide greater depth to the study overall, as discussed in Section 4.3. Section 4.3 also highlights the sensory significance of the five verbs being used which are inherently categorized according to physical experiences; encouraging familiarity to past remarks outlining intersubjectivity, embodiment, and the possibility to form semantic maps for each verb.

Finally, Section 4.4 analyzes the use of metaphor as it appears in VP construal by focusing on the listener. Furthermore, these sections serve to invite a distinctly observational

methodology into the existing foundational knowledge outlined in the previous chapters. Moving forward, Section 4.1 below considers how the raw data of the SBC and the COCA reveal the initial findings of the present study, as well as the similarities these findings share with those noted by other researchers.

4.1 Data analysis

At first glance, the SBC illuminates the frequency of use regarding *get, hear, see,* and *feel.* Chapter 3 described how these numerical values have been collected, organized, and what their frequency of use is proposed to demonstrate in the form of polysemous potential. Table 1 (first appearing in Section 3.2) is shown below for exploring not only the token values of these verbs, but also what these values mean in terms of polysemous extension, semantic mapping, and each verb's meaning potentials.

Table 1: Context-specific verb token and percentage totals from the SBC data

	Context: Tokens and Percentages			
	Metaphorical	**Literal**	**Ambiguous**	**Totals**
Get	678 (76.7%)	184 (20.8%)	23 (2.6%)	885 (49.7%)
Grasp	0	0	0	0
Hear	10 (14.5%)	49 (73.1%)	8 (11.9%)	67 (3.8%)
See	362 (48.8%)	351 (47.3%)	29 (3.9%)	742 (41.6%)
Feel	84 (95.5%)	4 (4.5%)	0	88 (4.9%)
Totals	1,134 (63.6%)	588 (33.0%)	60 (3.4%)	1,782 (100%)

Table 1 illustrates that the verb *get* appears most often in the SBC dialogue compared to the other verbs analyzed, with the majority of these tokens appearing in the metaphorical context. Proportionally, *get* tokens make up for 76.7% of the metaphorical tokens found compared to 20.8% which are literal, and 2.6% which are ambiguous. The verbs *see* and *feel* also contribute more tokens to the metaphorical context compared to the literal, with *see* showing 48.8% in the metaphorical and marginally less in the literal with 47.3%. *Feel* results in 84 metaphorical tokens, or 95.5% of all *feel* tokens found, with 4 tokens (4.5%) being used literally. This leaves two exceptions: *Hear* and *grasp. Hear* is used in the SBC less frequently in the metaphoric context (with only 10 tokens or 14.5%), while appearing most often in the literal (with a total of

49 tokens or 73.1%). *See*, being the second most commonly used verb in this data set, contributes the most tokens to the ambiguous column out of the four verbs used. Proportionally, however, the ambiguous tokens for *see* contribute a total of only 3.9% to this category, making *see* appear to be less ambiguous overall compared to *hear*. Moreover, the verb *grasp* does not appear at all in the SBC recordings.

Although, the total of metaphoric tokens accumulated from four out of the five verbs appears as the most frequent contextual value in the raw data with 1,134 tokens or 63.6%. The literal tokens reach a total of 588 or 33.0%, and finally, the ambiguous verb tokens total at 60 or 3.4%. The data set demonstrated in Table 1 highlights how uses of metaphoric verbs (especially *get*) appear quite liberally in dialogue, whereas the literal verbs appear nearly half as often. Additionally, the SBC demonstrates a potential limitation in the development of the current thesis. That is, it does not demonstrate any tokens of the verb *grasp.* As this is one of the five key verbs being analyzed herein, much is left to be desired by way of accurately showing the data at hand while maintaining the claim that *grasp* is, indeed, a verb capable of encouraging semantic construal and expressing polysemous extension. To remedy this discovery, the COCA delivers much-needed insight regarding this verb. However, previous discussions held in Chapter 3 regarding the COCA have suggested that it subscribes to a much more rigid demonstration of utterances
and responses based on its scripted and literary sources.

For instance, when one consults the search bar option on the COCA website, the sources are listed in a panel directly to the left-hand side of the screen. It has been seen previously (recall Figure 2) that this search yields reference results pertaining to television programs, podcasts, scripted radio shows, as well as written examples. These points serve to provide at least one initial finding compared to the SBC: The verb *grasp* is not used among the participants in the SBC recordings, but it is common in the COCA. Such observations raise valuable questions regarding verb use in speech on several levels – spanning from cognition, conventionalization, and finally, to construal. Subsection 4.1.1 below begins by stating the findings and the initial glimpse they provide into the quantitative values of verb use.

4.1.1 Findings

The findings of the current analysis demonstrate which verbs are more widely used and which

are less represented in the data overall. Moreover, the verb tokens appearing in the data are used by the initial speakers and their audiences, meaning that each speech participant contributes to the numerical values shown for each verb. Tables 1-2 show how token use varies, as *get* occurs most often with a total of 885 tokens (49.7%). To demonstrate the analytical approach used to note key points within a VP and its contextual relevance, each verb used is represented in example form within Table 2 below. Its columns are entitled: Preceding VP, Verb, and Following VP. Preceding VP means the beginning of the sentence which contains the verb just before it is used, the Verb column contains the verb being analyzed, and the Following VP column shows what is stated after the verb has been used. The Verb Count column includes the total number of verb tokens for each respective verb. Finally, the statements presented in Table 2 are examples of SBC conversations and how all of the verb occurrences have been analyzed to determine context (which is noted above the Verb and VP-specific columns).

Table 2: SBC whole VP examples and categorical placements

	Context:					
	Metaphoric (Example)			***Literal (Example)***		
Verb Count	**Preceding VP**	**Verb**	**Following VP**	**Preceding VP**	**Verb**	**Following VP**
Get Total: 885	"If you put it to them in a very simple way" (SBC 004)	"and they *get* it and they kind of go, 'yeah'"	"Well what you want to do is[…]When you have them in groups[…]"	"uh, aught, and double-aught, are the two sizes" (SBC 001)	"[…]And you go *get* your shoe…It's already made."	"[…]Well then you have to put it on the anvil, and *get* the shoe stretched out"
Grasp Total: 0	N/A	N/A	N/A	N/A	N/A	N/A
See Total: 742	"I got zero equals zero" (SBC 010)	"*See* it's little rules like that,… that I'm not gonna remember"	"…So if it's a -- if it's less than or equal to,"	"And I like […][that shirt]. You know what I had to do." (SBC 011)	"*See* where I sewed right down the middle of that."	"Yeah?" "Otherwise it would balloon out?"

Hear Total: 67	"I think that the more meetings you can attend," (SBC 026)	"and the more… organizations, …that *hear* your voice,[…]the better."	"…There's[…]a networking meeting going on, ..on Friday."	"is this [microphone] working?" (SBC 021)	"can you *hear* me okay?"	"[…]Been a great morning so far"
Feel Total: 88	"what it amounts to, is mutual [respect][…] he goes, …nobody fucks with my lifestyle." (SBC 007)	"I *feel* the exact same way."	"And all those bitches and complaints that he has, they're about my lifestyle."	"Well, if you're HIV positive[…]it's the same difference," (SBC 002)	"[since they] *feel* that,"	"…sooner or later you'll come down with the actual disease."

Table 2 shows a general representation for each verb operating within its respective VPs, which context is being implied via the conversational topic (either literal or metaphoric), and what is being said both prior to, and after, the verb. Here, Table 2 illustrates the researcher's findings by noting how the topic is taking shape within a conversation, how the verb interacts with the topic, and the information being presented based upon the speech participants' statement in its entirety. This process has allowed for semantic maps to be drawn in the present study for each verb being analyzed, and demonstrates how far the polysemous extensions of these verbs have travelled.

Before exploring the semantic maps generated through the analysis of the SBC dialogue, it is prudent to describe what a semantic map is, what it shows, and why the use of such figures in this analysis is paramount to understanding the polysemous expressions of each verb seen in the SBC. For instance, Croft (2001) notes how the semantic map connectivity hypothesis involves "any relevant language-specific and construction-specific category [which] should map onto a CONNECTED REGION in conceptual space" (Croft 2001: 96). Essentially, a lexical item – or occasionally, a larger construction – can be placed as a focal point in a figure which is then surrounded by connectivity lines which indicate the meanings associated with the key word or sentence. Much like a webbed network, this is the foundational configuration of what is known as a classical or first-generation semantic map.

The semantic maps specific to *get, hear, see,* and *feel* which are shown in the discussions to follow are organized according to a specific verb appearing in its own box which is central to the map and italicized for emphasis. The subsequent boxes which constitute the rest of the map show the senses to which the key verb in question has been extended. These maps show the interpretations for the verb, including all literal and metaphorical meanings found in the SBC. The distance of each line between each semantic box has no bearing on the relationship these meanings share with the verb: They only show semantic extension represented in an outward direction from the starting point of the verb. Similarly, lines with arrows show unidirectional relationships, whereas straight lines show multidirectional relationships.

In the semantic map for *get*, there are interrelated meanings shared between Locative and Stative extensions. The connective lines drawn for these boxes are not unidirectional; rather, they show that some interpretations for stative and locative meanings are interrelated (such as arriving at an emotional state "*get* angry", or arriving at a physical location "*get* there"). This principle applies to the Coax and Encourage interpretations, as well ("*get* them angry" and "*get* them to go there"). To illustrate what semantic mapping looks like when a verb happens to be the key lexical item under observation, consider Figure 3 below regarding the findings pertaining to *get* in the SBC:

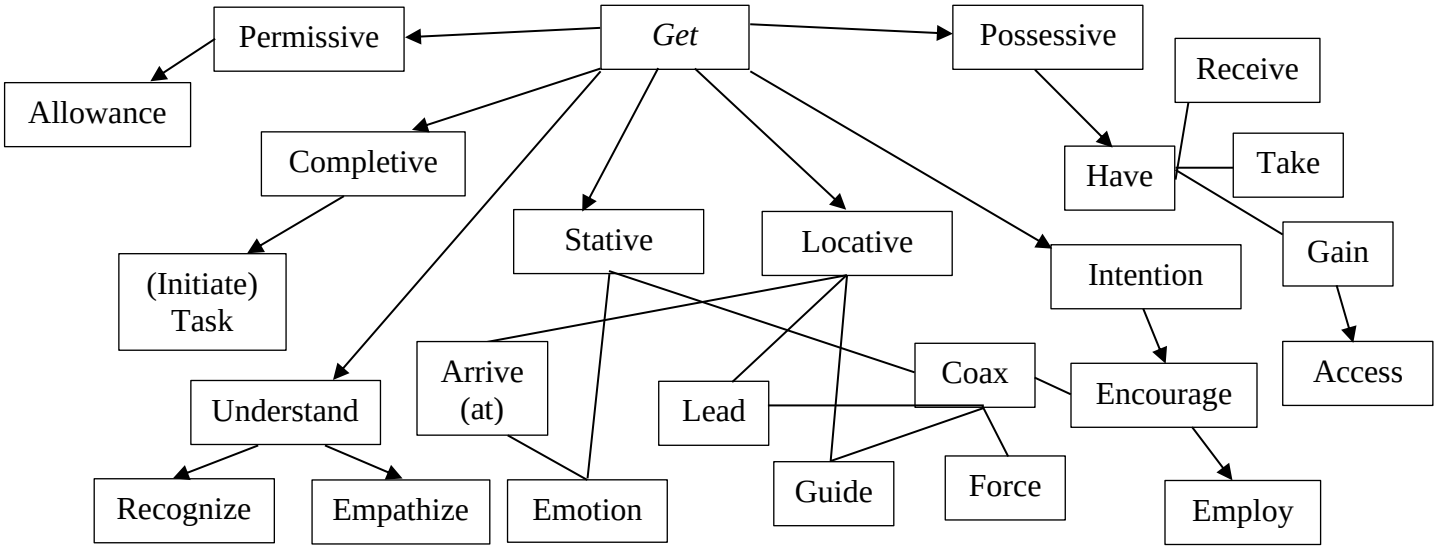

Figure 3: Semantic map drawn for get *based upon use in the SBC*

In essence, *get* has been found to indicate: Acquire, capture, situations of permission – typically when *get* is followed by to-*infinitive* (see Gronemeyer 1999: 7-10) as well as to gain

(i.e. possessive *get*), coax, encourage, hire/employ, arrive at an emotional state of being or literal locale, to initiate change, achieve, to deliver instruction, and understand. In the COCA, *grasp* appears to convey a much more desperate nature of the action of gaining possession, as *grasp* tends to illicit instances of grabbing quickly, vigorously, and instantly. Although *grab* and its inflected varieties are used occasionally in the SBC, its use is an instance of an unforeseen verb expectation for this study.

In literal ways, *grasp* shares similarities with *get*, but indicates a greater sense of urgency and immediacy overall. However, this is less so in terms of the metaphoric context which appears to be near consistent from *get* to *grasp*, as Chilton (2009) asserts that, when *get* and *grasp* are compared, "*get* does not in fact specify the exact nature of what [one has] referred to as the grasping action itself. The semantic schema for *get* is not the same as the global motor prehension schema [for *grasp*]" (Chilton 2009: 333). Essentially, *grasp* suggests the deeply internalized motor process of taking above anything else, such as gaining something (a literal object or a metaphorical idea) before possession has been established.

Looking into the semantic map drawn for *hear*, Figure 4 below provides a visual representation of the semantic directions in which this verb has travelled according to its use in the SBC:

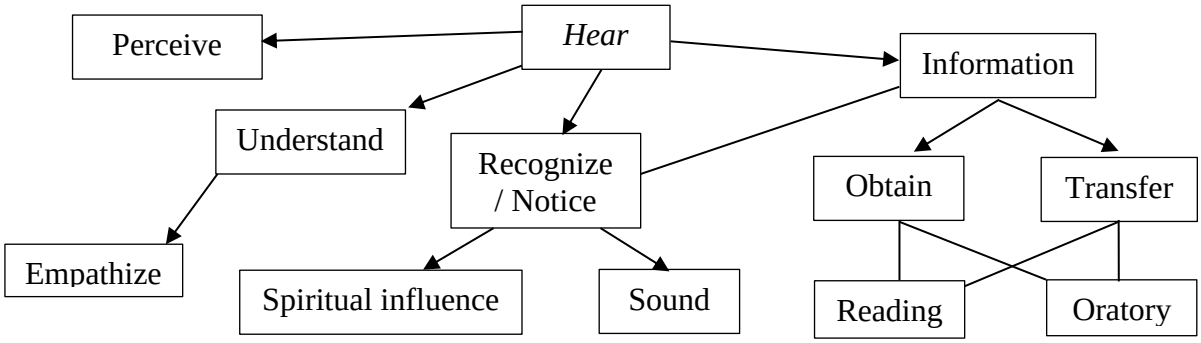

Figure 4: Semantic map drawn for hear *based upon use in the SBC*

To highlight the semantic implications indicated through the use of *hear* further, the speakers and listeners in the SBC utilize this verb to reference: Obtaining information via the actual sense of hearing it, or acquiring it through other means (i.e. reading something, which one may claim to have *heard* about), to take note of something, pay attention to, (and empathize with) someone.

For example, a speaker uses the phrase "organizations,…that *hear* your voice" to describe being taken seriously by an organization, and one's concerns being acknowledged (SBC 026 *Hundred Million Dollars*: 298.988-301.186 to 302.789).

Moreover, this verb is used quite consistently in the recordings of the SBC's files which are taken from sermons (such as SBC 020 *God's Love* and SBC 021 *Fear*, as well as SBC 030 *Vision*). However, as this speech environment is one of a more spiritual nature, it presents the unfalsifiable hypothesis that the speaker and/or audience members have literally sensed with their physical ears the voice or messages of God (SBC 020 *Fear*: 42.212 to 50.809). In this way, the orators refer to *hearing* in the sense that one recognizes the (spiritual) feeling or experience described as *hearing* something via one's 'heart' or 'soul' (SBC 020 *God's Love* and SBC 021 *Fear*).

The findings surrounding the polysemy of the verb *see* are mapped in Figure 5 below, demonstrating where its visual semanticity appears to lead the SBC dialogue:

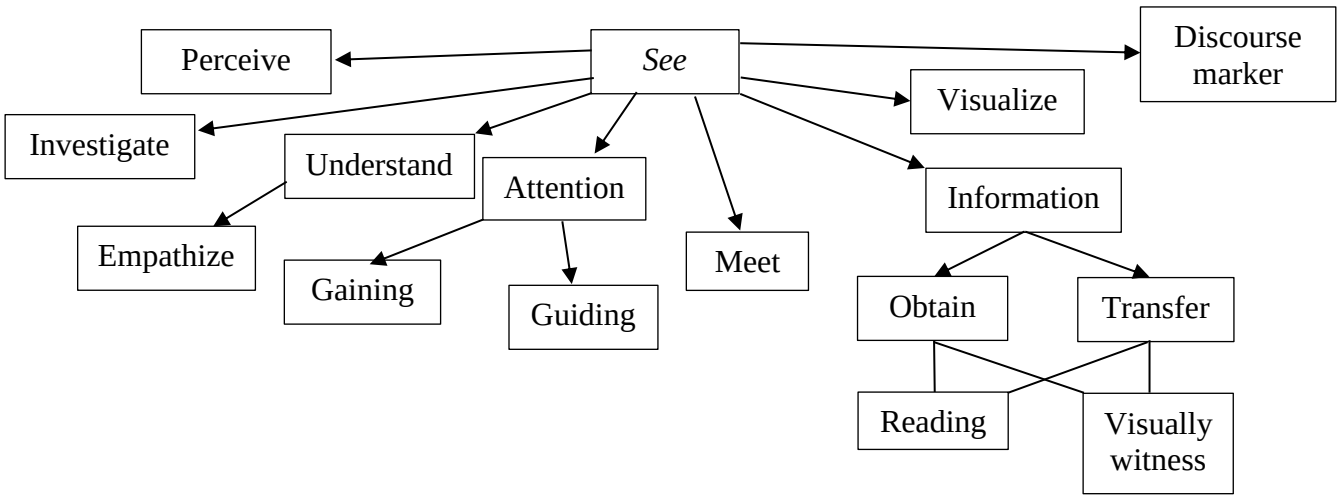

Figure 5: Semantic map drawn for see *based upon use in the SBC*

Here, *see* follows a strong pattern of meaning: To determine, investigate, to meet with someone physically, comprehend, to notice something, observe something, recognize, determine, explore, and to visualize or picture some event in the mind's eye. *See* is also often seemingly used as a verbal device to get someone's attention fixed upon an important point in the conversation. This is notable as many speakers throughout the SBC have used short phrases similar to: *See, that's just it*, and *see, that's what I'm saying*, as well as, *see now,[…]* and finally, just the lexical item

see alone before stating something that has not presumably been physically observed with the eyes of the speaker (SBC 013 *Appease the Monster*). *See* also makes a great number of appearances, again, in the files SBC 020 *God's Love* and SBC 021 *Fear*. It is fascinating to note that both *hear* and *see* (highly physical verbs as they typically depend upon one's literal senses) appear often in settings where metaphysical, spiritual entities and emotional states are present.

Lastly, findings regarding the polysemous semantics pertaining to the verb *feel* include what is noted in Figure 6 below:

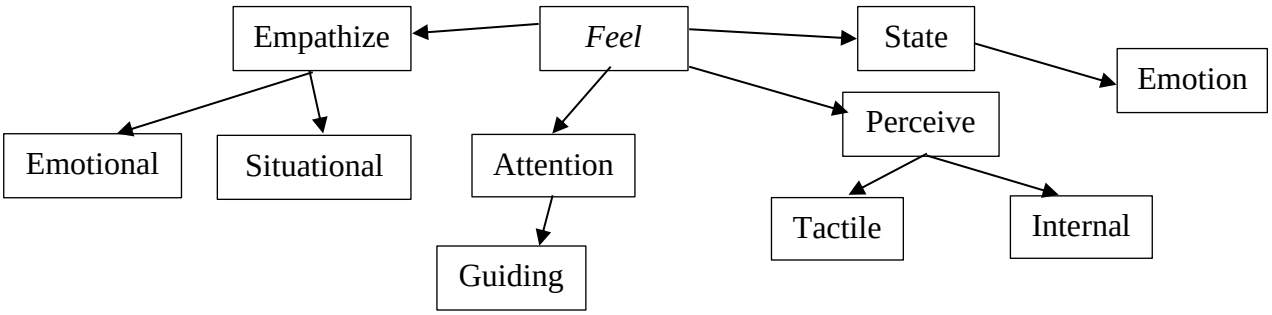

Figure 6: Semantic map drawn for feel *based upon use in the SBC*

Feel overall demonstrates emotional states, empathy, a subject's perceptions of their own body such as, "[orange juice] makes me *feel* like I ate a candy bar" (SBC 004 *Raging Bureaucracy*: 24.28 to 26.38), and to reach out and *feel* with the hands. Furthermore, *feel* appears to be less of a literal-occurring verb compared to the others, and indicates a more subjective or experiential notion to both the context surrounding it and the verb, itself. Furthermore, there appears to be very little agentive drive or volition involved with this verb as many instances within the SBC suggest that *feel* does not necessarily require the involvement of an agent. Throughout the following statements and observations, *feel*, when used to describe bodily experiences, are counted as metaphorical as they do not adhere to the definition of *feel* outlined in Chapter 1 (i.e. using one's hands to reach out and *feel* something).

In consideration of these preliminary findings, an additional point has arisen in the analysis of the SBC files. This point involves volition and agency regarding the verbs *get* and *feel*, specifically. There are instances in the SBC which raise questions surrounding how one can best determine a literal VP and a metaphoric VP when there appears to be a great deal of dependence upon the verb's user, such as when there is an experiencer (i.e. *feeling* ill which

makes the speaker an experiencer of undesirable illness, versus reaching out and intentionally *feeling* something). One speaker from the SBC file 039 *Pretty Busy Bird* utilizes *get* in such a way that encourages a discussion regarding the potential difficulties in determining which context is most appropriate for each verb's assignment.

To illustrate this point further, the file in question observes the speaker indicating the lack of desire of the experiencer to *get* something, stating, "it'll *get* some oil on its beak" (SBC 039 *Pretty Busy Bird* 1263.828). This statement is made in reference to a penguin being seen in a zoo enclosure, as the conversation follows a series of events surrounding the penguins and their activities. The question presented here, then, is whether or not to count this instance of *get* as an example of a literal context verb or a metaphorical one, as the penguin appears to not desire to have a beak covered in oil, and so does not exactly receive, take, or otherwise acquire it intentionally.

Recall that the process of noting which verb fits into which context is being determined by the researcher on the grounds of three principles; i) their pre-existing understanding of the English language due to it being their L1, ii) the concrete definitions pertaining to each verb, and iii) the researcher's expertise in the areas of linguistic training specific to cognitive, semantic, and metaphoric discourse analysis. With this in mind, it is being determined here – in accordance with the work of Gronemeyer (1999) – that volition and related agentive factors do not necessarily impact the context being conveyed. Rather, the context is indicated as being literal or metaphoric by the topic of the whole VP (see Gronemeyer 1999: 9-10). In this case, then, the penguin may potentially experience being affected by the object – the oil – making the verb *get* appear to be literal according to its literal context, even if the scene being described sounds hypothetical rather than actually occurring. It is noted to be literal here because, although the consequences of the penguin *getting* oil on its beak are predictive, the topic is literal and the verb *get* is involved in this literally-based prediction.

Moreover, such discussions on the initial findings surrounding the verbs at hand, as well as the deciding factors which have shaped a more informed understanding of the contextual analysis to be developed in the sections to follow, allow for one to now explore the categories specific to VPs. Subsection 4.1.2 below illustrates with the use of examples how the categories of VPs show polysemy through the five key verbs seen in discourse.

4.1.2 Categories of VPs and examples.

Moving into the next phase of the current investigation, one may recall the statements made earlier which reviewed why certain VPs fall into either the literal or metaphoric context (see Section 1.1). This discussion leads into the current topic of dissecting specific examples at greater length and pinpointing where difficulties and discoveries lie in this categorization process. Consider the following examples in Table 3 below, which utilizes a similar configuration to that of Table 2. This table includes columns highlighting the Preceding VP statement (what is said before the verb), the Verb column showing the verb being analyzed, and the Following VP column showing what is said after the verb. Each of the SBC file numbers are written in the rows on the left side of Table 3, which shares space with the Verb row as indicating that each of the examples show *get*. The SBC 007 example is divided into two rows, as these statements are taken from the same file, but occur at different times during the participants' conversation. Finally, all three files are metaphoric as indicated directly above the columns.

Table 3: Metaphoric context regarding VP's involving get –
SBC 001 Actual Blacksmithing, SBC 021 Fear, and SBC 007 A Tree's Life

	Context: *Metaphoric*		
Verb Count: *Get*	**Preceding VP**	**Verb**	**Following VP**
SBC 001 *Get* total shown: 3	"I'm..a little scared..about doing it yet. you know,"	"I *get* em really long. I mean they're still long when I *get* done with them. A lot of times, like I'll *get* done,"	"and I'll think I'm done, and I'll look at---the horse's hoof..and it's still,..it's too..long."
SBC 021 *Get* total shown: 1	Walt: "So my suggestion is,"	Walt: "...that we *get* there…plenty early."	Audience: "..Yep." Walt: "Okay?"
SBC 007 *Get* total shown: 2	Mary: "Yeah"	Alice: "He doesn't *get* any breaks"	Mary: "…Yeah…Tim is on salary, and he can take leave, and,"
	Alice: "Mhm, and [he earns] leave,[…]he gets sick leave"	Alice: "…we don't *get* shit."	Mary: "[…] I don't know.[…] It is really hard living with another couple."

Overall, the polysemy of the verb *get* is seen distinctly in Table 3. Throughout the examples seen in Table 3, the speaker uses *get* as a completive term, as shown via the expression "*get* done" indicating that a task has reached a point of completion due to an action accomplished (or at the very least, initiated) by the speaker (SBC 001 Actual Blacksmithing). To highlight this polysemy further, SBC 001 Actual Blacksmithing also uses *get* as stative when the farrier describes how she "*get[s]* [the horse's hooves] really long"; also using *get* as a completive term with accomplishing the task of trimming a horse's hooves. Table 3 shows *get* being used in the locative sense regarding arriving at a destination as noted in SBC 021 Fear. Table 3 also shows *get* appearing in the sense of receiving (or in this case, not receiving) any desired benefits from the job being described by the speaker, Alice, in 007 A Tree's Life. In this way, *get* is used to indicate permission, even though it is negated (as in, not *getting* breaks or paid leave from work). This is inferred from the speaker's phrasing, "we don't *get* shit" according to the context indicated via the topic of a work-related situation.

It is also worth pointing out that the utterances including *get* in each of the three examples in Table 3 appear to convey different meanings each time, and that the listener seems to be responding without difficulty. Any hesitation at reaching some construal on the part of the listener should be somewhat evident through comments such as *uh, what?, hm?, er,* and the like if the semantics of the speaker's verb had been compromised in some way or had simply not been interpreted by the listener. However, the listeners and speakers in Table 3 appear to be rapidly dissecting the semantics well enough to leave nothing to the imagination.

A strong explanation for the fluency of *get*'s delivery and inferential semantics is defined in more detail through frame semantics, a form of meaning organization proposed by Fillmore (1976). Frame semantics asserts that the speaker and the listener are engaging in speech and construal based upon the meanings of the verbs being used according to each person's encyclopaedic knowledge of that verb (or any lexical item for that matter) (Fillmore 1976). In this way, frame semantic theory indicates the phenomenon of listener construal through spoken VP contextual cues (and the verbs these VPs use) which can narrow down related semantics to the most relevant meaning available to the listener as provided by their inferential schemas.

Furthermore, the findings of the present analysis indicate that some verb examples are much more polysemous than others. Table 1 shows how, out of the total number of verbs collected from the combined sixty file entries from the SBC, a cluster of 60 verbs could not be

confidently placed in either the literal or metaphoric category. Thus, these ambiguous entries have been categorized as such in the tables and discussions to follow. The polysemous analysis of this study indicates that the intended meanings of verbs can often be challenging to identify, including their surrounding contextual influences, as will be seen in greater detail in the sections to follow. The goal to be reached at this point in time is to determine what the data shows according to verb tokens, while also pointing out why some verbs appear more clearly in either the literal or metaphoric context compared to others.

For now, consider the following examples of clear VP categorical placement for the semantics of metaphorical (example (7)) versus literal (example (8)) *see*:

(7) SBC 013 Appease the Monster

788.32 788.49 WENDY: No,
788.49 789.03 because he w_ __
789.03 789.97 he wasn't trying to sell it,
789.97 790.52 .. he was just saying,
790.52 792.21 does this smell like .. Drakkar,
792.21 792.52 .. or,
792.52 793.04 .. whatever,
793.04 793.97 (H) because,
793.97 795.22 ... they're gonna o_ __
795.22 795.57 try % __
795.57 797.47 ***see*** if there's a market for this sto=re,
797.47 798.37 .. that they want to open,
798.37 799.17 .. down the road,
799.17 800.12 .. that [sells],
799.39 800.47 KEVIN: [So he's a marketing] agent.

(8) SBC 013 Appease the Monster

155.40 155.97 MARCI: [4!Kevi4]n.
155.97 156.69 .. It'll [5be alright5].
156.25 157.35 WENDY: [5You can bare5][6ly ***see***6] it.
156.69 157.10 KEN: [6(THROAT)6]
157.35 158.05 MARCI: .. (THROAT)
158.05 158.95 WENDY: ... You can barely ***see***- --
158.95 160.95 Did you have a big glop of lettuce on your tooth !Mar[ci].
160.58 161.31 MARCI: [Mh][2m2].
160.95 161.31 WENDY: [2Oh2],
161.31 162.60 we were just sitting laughing at you.

These examples invite a certain understanding that the context is clearly literal or metaphoric based upon the topic. The topic taking place in example (7) denotes the metaphoric use of *see* insomuch that one person is describing 'looking into' or 'finding out' if there is a market available for a certain product. There appears to be no other phrasing used to describe if the speaker is talking about visibly seeing the product being discussed and, therefore, it is very likely that this example of *see* is a metaphorical expression. That is, *seeing* indicates matters of *investigation* which is accomplished by means not strictly related to the use of one's physical eyes, but rather, their opportunistic explorations.

Example (8) takes a much more obvious literal turn, as this VP points out that lettuce can be *seen* between the teeth of another individual in the room. By use of this context, the speaker literally draws the listener's attention to the visible object (the piece of lettuce, as well as the other person's teeth), and introduces the verb *see* (regardless if this is done intentionally or not) which guides the listener's attention to these features of interest. Therefore, the speaker's delivery of the verb, as well as the listener's ability to construe what it means, appears to be a rather straightforward pattern of comment and response, attention-grabbing and attention achievement, verb use and VP context generating semantic construal.

Contrastingly, there are difficulties to be noted as well regarding how a speaker uses a certain verb which does not appear to have any committed foothold in one semantic context or the other. These such instances have been referred to in recent statements as being categorized in the ambiguous category, and will require several examples in order to fully appreciate what this category involves, as seen here through Examples (9) to (12):

(9) SBC 013 Appease the Monster

1298.48 1298.68	KEVIN:	[<Q Hey],
1298.68 1299.53		who bought the green cake Q>.
1299.53 1300.58	KENDRA:	<FOOD Actually this [is good],
1300.05 1300.58	WENDY:	[@@]
1300.58 1301.49	MARCI:	[2@@@@2]
1300.58 1301.97	KENDRA:	[2cause my throat2] [3.. hurts.
1301.49 1302.89	WENDY:	[3<FOOD It's a Saint Pa3]trick's cake.
1301.97 1302.24	KENDRA:	So3],
1302.89 1303.49	MARCI:	... @
1303.49 1303.69	WENDY:	.. [Oh,
1303.54 1305.04	KENDRA:	[this feels really] good on my throat FOOD>.
1303.69 1304.24	WENDY:	well ***see***= FOOD>].

1305.04 1306.14 ... Oh=.
1306.14 1306.56 [***See*** X]?
1306.19 1307.50 MARCI: [That's n]ice of you to [2say,

By taking a closer look through example (9), there are two appearances of the verb *see*, yet it is not entirely clear where they fit regarding their contextual allegiances. Categorizing these two verb appearances is a challenge here due to one of the limitations expressed in Chapter 3 which cited the lack of visual cues available through the SBC's files.

That is, the entries for this corpus appear in two formats: Auditory and textual. Keeping this in mind through the sections to follow, it is important to note that, although there is some idea being given here to the reader/hearer of this file that these instances of *see* may be literal – it is difficult to know for certain. Similar difficulties arise with the following Examples (10) to (12), as the speaker and listener appear to know what is taking place dialogically, but for an outsider, the information specific to the verb is contextually indeterminate:

(10) SBC 023 Howard's End (ambiguous *see*)

1104.7601105.320 LORI: (H) <X<@ Come on @>X>.
1105.3151105.810 LINDA: [Well ~Lori],
1105.3501105.890 DIANE: [@@]
1105.8101107.255 LINDA: did you [2see the2] movie,
1106.2351106.690 LORI: [2So2],
1107.0201107.435 .. No,
1107.4201108.180 I'm going to rent it.
1108.1801109.710 .. <@ After [I leave <X here today X>@>].
1108.7651109.455 LINDA: [***See*** I think --
1109.4551111.835 I] [2think2] [3it's better to see the movie first,
1109.7151110.135 EVELYN: [2@2]
1110.1351111.540 DIANE: [3I am too ~Lori,
1111.5401112.135 @=@3]
1111.7601112.640 LINDA: and then3] read the book.
1112.6601113.720 LORI: I think it'll help.
1113.3551114.450 LINDA: .. I think [it] --
1113.9601114.480 LORI: [I think],
1114.4401114.655 Well,
1114.6551115.655 [and it's getting a little] [2f=- --
1114.2451115.725 EVELYN: [M=].
1115.2251116.105 LINDA: [It's=] [2a good way to do it2].
1115.7551116.045 LORI: .. you know2],
1116.1201117.695 I'm getting more into [3the characters3].

(11) SBC 024 Risk (ambiguous *get*)

1396.050 1396.830 JENNIFER: [3(H) Now li3]sten,
1397.280 1397.836 (H) ... Okay now,
1397.836 1399.883 b- two different people took .. hearts.
1399.883 1400.095 Now,
1400.095 1400.876 if you t- have all --
1400.876 1402.355 if you take all the points,
1402.923 1404.059 ... if you take all the points.
1404.059 1405.111 All thirteen hearts,
1405.111 1406.330 and the [queen of diamonds,
1405.419 1406.803 DAN: [So that's twenty-six points].
1406.626 1407.146 JENNIFER: (H) it's called],
1407.146 1407.407 right.
1407.407 1408.400 It's called shooting the moon,
1408.400 1409.098 and you ***get*** --
1409.359 1411.654 ... you give everyone else .. twenty-six points,
1411.902 1413.901 ... or else you're minus twenty-six points.
1414.280 1415.049 ... And that's good.
1415.049 1416.587 ... Shooting the moon is really hard to do.
1416.906 1417.344 (H) Now look it,
1417.344 1418.385 I don't have a club,
1419.012 1420.112 DAN: ... So you can throw a heart.
1420.112 1420.727 JENNIFER: there you [go].

(12) SBC 019 Doesn't Work in this Household (ambiguous *hear*)

220.627 222.784 FRANK: of stifling conversation and SM>2],
222.784 225.420 It's just like tonight at that in-service.
225.420 228.152 ... % ... #Noble,
228.152 229.086 whatever her name is,
229.086 229.805 .. was sitting,
229.805 230.500 ... on this side.
230.500 231.363 and she says something about &
231.363 232.226 MELISSA: #Angie #Noble?
232.226 234.382 FRANK: & (TSK) ... Clinton.
234.382 235.796 MELISSA: [#Angie #Noble]?
234.382 235.796 FRANK: [and about] --
235.796 238.049 ... I forget what she said,
238.049 238.264 you know,
238.264 239.438 about supporting Clinton and,
239.438 240.828 .. (H) and was just kind of --
240.828 242.050 ... something about that,
242.050 243.201 and Donna here and there she says,
243.201 243.440 well,
243.440 243.848 I don't know she says,

243.848 245.142 I'm gonna vote <SM for the other guy,
245.190 245.669 it's like SM>,
245.669 247.059 ... end of <SM conversation SM>,
247.059 247.538 let's just,
247.538 248.497 [<SM be quiet folks SM>.
247.538 249.527 RON: [@ (H) @ (H) @ (H)]
248.425 249.527 FRANK: <@ I don't wanna ***hear*** any more @>].
249.527 251.085 @@@@[2@@@2]
250.102 251.085 RON: [2(COUGH) (COUGH)2]
251.085 252.882 FRANK: @ (H) .. (THROAT)
252.882 255.949 MELISSA: ... Missis #Noble's definitely very ... democratic.
255.949 256.596 (H) <F<VOX Mo=m,
256.596 257.339 .. I'=m going VOX>F>.
257.339 258.489 because she's pro-choice.
258.489 259.016 .. Anyway%,
259.016 259.663 I think <X that isn't X> --
259.663 262.683 ... not a good reason [to <MRC base] .. your .. decision ... though MRC>.

Examples (9) to (12) above include verbs which are classified as ambiguous for different reasons. First, in example (9), the speaker uses the verb *see* in two different ways: The first instance shows *see* as simply being cut off in the phrase (yet, the hearer does not need to resolve this ambiguity, and can ignore it in this case), whereas the second *see* may indicate that the speaker is pointing out something physically for the listener to observe. Again, this is difficult to confirm as there are no visual cues upon which to rely for making a literal context placement. This lack of visual information is a methodological limitation for the researcher only, and may be an experience known only to the participants. Next, example (10) shows that *see* is ambiguous due to it appearing as a lexical item lacking any contextual ground. That is, example (10) suggests that the speaker simply states *see* before trailing off and not adding to the VP they had begun. The unfinished *see* VP in example (10) suggests that this ambiguous categorization is based upon the structure of the conversation, where *see* is only acting as a discourse marker. In example (10), there is a second *see* token which can be counted as literal, located below the one that is bolded and italicized. It should be noted that the first token is the focus for example (10).

Example (11) uses *get* in a similar way noted for the first *see* appearing in example (9), where the speech participants are discussing the rules of a card game. In this scenario, the individual using *get* suddenly reverts to saying “give” as this person realizes that the rules are specific to giving another player a certain type of card. Although it could be argued that the

speaker's use of *get* here contains a contextual tie to the literal act of receiving a literal object in the game (a card), this *get* is discredited as having any real part in the conversation, as it is not carried through the conversation and interpreted by the listener – only the new verb, *give*, is used to carry the intended semantics.

Finally, example (12) utilizes the ambiguous verb *hear*, but this is due to it possibly being interpreted in three different ways: i) the speaker literally does not want to *hear* with their physical ears what the referent has mentioned, ii) the speaker is quoting someone else's statement, or possibly iii) the speaker does not want to *hear* (or simply talk about) the topic of politics. English speakers include the phrase "I don't want to *hear* about it" regularly in everyday discourse, and it typically means that the speaker does not want to discuss a topic any further. However, it is not perfectly clear which of the three interpretations pertaining to *hear* in example (12) is what the speaker intends, so this verb falls under the ambiguous category.

Such observations pave the way to consider additional nuances suggested by the data, as it leads the present investigation to discovering what makes verbs and the speakers who use them so closely involved with the available contexts and semantics. Additional discussions regarding the use of Tables are introduced in Section 4.2 below to illustrate the verb tokens recorded through the SBC, as well as some VP examples to show how these contexts have been decided upon regarding the verb semantics they carry.

4.2 Analysis of SBC tables and individual verb types

As first introduced in Subsection 4.1.1, Tables 1 and 2 have shown that the speakers of the SBC often present clear examples of both literal and metaphoric use of the four verbs of interest to the present study. In addition, it has been seen that these verbs also appear in contexts which are too ambiguous to assign to either category. Ambiguous verb tokens have been placed in an ambiguous category, as noted specifically in Table 1.

Many ambiguous findings are derived from the SBC files 020 *God's Love* and 021 *Fear*, as they are more difficult to comb through and find significant pairings between certain verbs (such as *see, feel*, and *hear*) and the most relevant semantics appertaining. These files are known to carry semantically meaningful (yet deeply spiritual) topics as the orator indicates perception associated with physical senses. This phenomenon is evidenced through the verbs *see, feel,* and *hear* to denote one's spiritual feelings, visions, and hearing the voice of a contrastingly

intangible, invisible entity. Thus, it is important to note that such examples have contributed greatly to the ambiguous column of Table 1, along with other instances in which the speaker uses one of the five verbs, but trails off and does not provide any context to the verb at any point.

Furthermore, there is a substantial number of ambiguous uses of the verb *get*, with this number reaching a value of 29. However, recall that this verb's tokens reach a total of 885, making it more likely to also contribute higher values to the ambiguous column of Table 1. However, the percentage of ambiguous tokens in proportion to the overall token value is only 2.6%. That being said, it will be explored in greater detail throughout the sections to follow how *get* not only appears most often throughout the SBC recordings, but it is also perhaps the most polysemous term out of all five verbs being analyzed (see Gronemeyer 1999).

Table 1, noted in Subsection 4.1.1, has illustrated the numerical and proportional findings attributed to which contexts the five key verbs are seen to occur, and how often. From here, the discussions to follow unite what has been learned thus far regarding the theoretical, factual, and statistical findings pertaining to metaphoric versus literal use of *get, grasp, hear, see,* and *feel*. The analysis taking place in Subsection 4.2.1 addresses the topics in conversation as they unfold - with notions positing why these results have taken place and what they mean.

4.2.1 The five verbs: Interactions between speaker and listener

The SBC provides a significant number of instances by which to measure the contexts in which verbs appear according to the speaker's utterances, the listener's reply, and how each respective verb takes on a polysemous meaning so as to blend into its surrounding contextual environment. As seen thus far, the verb itself plays its own role by delivering an experiential significance to a conversation. However, there are other factors at work which allow for the speaker and the listener to make sense of the VP's semantics. One such approach is employed by Steen, Dorst, and Herrmann (2010), who note throughout their own study – which closely mirrors the methodology and analysis of speaker-to-listener dynamic as implemented throughout the present analysis – that "the speaker specifically points his listener to the concrete location of Pat's house by using the literal verbs *see* and *look*" (Steen, et al. 2010: 70; italics original). In this example, Steen, et al. (2010) discuss how two people are travelling through "Pat's" hometown when they come across the house he used to live in. Upon noting this background, one person, "Stuart", exclaims that the building he is indicating to using various reference points (such as a large wall

and some trees that can be seen from the car) is Pat's old house – drawing the attention of Stuart's listener, "Ann", towards this object (Steen, et al. 2010: 70-71).

In light of this observation, similar instances have unfolded throughout the current investigation into the SBC's recorded conversations, in which the speakers utter the verb *see* in contexts that are quite literal, which certainly makes sense. The challenge begins when seeking to understand why such verbs of perception are used when there is nothing to perceive. The following example illustrates this phenomenon via the listener's response to the speaker's *see*-specific VPs in both the literal and metaphoric context:

(13) S*ee* (literal context) and listener response

SBC 001 Actual Blacksmithing

813.37 813.63	DORIS:	Well,
813.63 815.37		that's what happens with that air conditioner.
815.37 815.78		it's just --
815.78 817.75		... it gets dust accumulated in it,
817.75 819.19		***see*** it's all over the TV=.
819.19 823.10	LYNNE:	... It was just o=n last night,
823.10 824.54		how does it get du=st [in it already].
823.92 824.27	DORIS:	[We=ll,
824.27 824.54		I] --
824.54 825.49		It .. ~Mae ~Lynne,
825.49 829.09		.. for one thing the .. filters are dirty because it .. it so --
829.09 829.90		.. been so dry.

In example (13), the speaker uses *see* in the literal context to guide the attention of the listener to the literal item being indicated in the conversation (the television), and more specifically, the dust which appears to have settled upon it. Once this is said, it can be seen that the listener's response is in direct reference to the same object and the circumstances surrounding its current state. This happens when the speaker "Doris" states that "It[…]for one thing the..filters are dirty because it [has][…]been so dry" (825.49 829.09 – 829.90). Here it is shown that there is a direct statement and response dynamic being shared through this interaction, as the speaker guides attention and semantics via the introduction of a verb in its literal context, along with (likely) pointing to the object in question. The listener "Lynne" is also reciprocating this information (i.e. stating that she, too, has observed the dusty television) while the speaker then elaborates further. This elaboration appears through the speaker's suggestion that the television

is in its current state because the environment has been dry, and so the air conditioning mechanism operating within the room must also have contributed to the cause of the dust-covered object.

In this way, there is a process taking place in which the speaker is (at least in this example) deliberately guiding the listener to construe that the television has dust on it, but also, that there must be an explanation which the listener may provide. Although, the speaker is likely not thinking this far ahead (or at all) concerning the listener's responses, nor is the speaker considering how *see* may impact their VP's semantics. Simply, the speaker is using the verb of best fit for the situation as the casual parameters of the English language have prescribed and conventionalized over time. This approach to understanding the interactions between speaker and listener seem quite clear when looking into the literal aspect of the VPs being used, as well as the environment and objects therein which can be literally indicated for encouraging construal. However, can the same principle be applied to metaphorical instances?

Gentner and Bowdle (2001: 228) note that "When a metaphor is first encountered, both the target and base terms refer to specific concepts from different ontological domains, and the metaphor is interpreted by (a) aligning the two representations; and (b) importing predicates from the base to the target, which then count as further matches. As a result of this mapping, the common relational structure that forms the basis of the metaphor interpretation will increase in salience relative to domain-specific differences between the two representations". Let us observe what takes place from the speaker's statements to the listener's response in one such example shown below:

(14) S*ee* (metaphoric context) and listener response

SBC 010 Letter of Concerns

552.74 554.34	BRAD:	and if I need to fill in blanks,
554.34 554.97		[which],
554.45 554.90	PHIL:	[Oh yeah].
554.97 555.85		(H) [2That's fine2].
555.22 555.57	BRAD:	[2You know2].
555.85 556.05	PHIL:	That --
556.05 556.25	BRAD:	But --
556.25 556.80	PHIL:	***See*** but that --
556.80 557.30		.. your --
557.30 559.00		.. your position .. is different.

559.00 559.63 BRAD: M[hm.
559.29 560.19 PHIL: [(H) Okay?
559.84 560.19 BRAD: .. That's --
560.19 560.99 Yeah that's true].

Here, the speaker "Phil" uses *see* in a non-literal way by stating that "*See* but[…]your position .. is different" (556.80-559.00; italics added). By doing so, the listener "Brad" responds initially through mumbling remarks, but with further prompting from Phil, says "That's – Yeah that's true" (559.84-560.99). It is also important to note that the participants are discussing a topic requiring stance-taking when considering another person's 'views' (serving as a cue to visual senses and *seeing*). This topic is metaphorical in nature, and so reinforces the semantics of *see* in example (14) when discussing *looking at* someone else's emotional, personal, and otherwise non-literal position (i.e. opinion, which is not a literal thing) in a conversation.

It is curious to note that the polysemy associated with the verb *see* appears to be known to both individuals as it is introduced through the context of argumentation, opinion, and *looking* at a problem through someone else's metaphorical eyes. Furthermore, the context seems to act as the final cue needed to encourage the semantic construal of the listener as seen through their responses. Moreover, Gentner and Bowdle (2001: 229) assert that "Conventional base terms are polysemous, and the literal and metaphoric meanings are semantically linked due to their obvious similarity". Therefore, it is quite natural that verbs (with their dictionary-based semantic roots being assigned to the literal context) follow a direct speech-to-understanding progression from speaker to listener even when the context does not fall into the literal vein of meaning.

Section 4.3 below sheds light on the subject of metaphoric applications of verbs, specifically, to see where the connection addressed by Gentner and Bowdle (2001) above can be applied to creating semantic maps for such meanings. It is this approach that is credited with bringing more contextual influences into the frame, as it is discussed how listeners really do understand the meanings of verbs according to context and, most importantly, the semantic maps associated with their verbs. This is further noted in the section below to be accomplished on the basis of these elements triggering cognitive and experiential connections to one's physical experiences.

4.3 The significance of visual, auditory, and tactile verbs in metaphorical discourse

It has been seen in previous accounts that speakers use physical anchors (i.e. objects and concrete examples closely tied to physical realities and experiences) which allow for metaphors to instill a sense of familiarity to the listener's inferential schemas when they combine these physical, real-world attributes with abstract notions and ideas. Another important point to consider is the fact that embodied meaning is constantly being expressed from speaker to listener through verbs.

These respective discussions, which will be expanded upon in the subsections to follow, show how verbs encourage semantic connections between ideas and concepts – as noted in Conceptual Blending Theory (refer to Oakley & Pascual 2017: 426-427). More importantly, this section seeks to determine how understanding metaphoric versus literal contexts is achieved intersubjectively. Thus, it is explored below how these events take shape in real conversations and take into account where these nuances appear in context. Additionally, the tactile, auditory, and visual dependence upon which these verbs are built is found to be the primary attribute of construal, while conveying the semantics intended.

4.3.1 The role of embodied intersubjectivity

As the speaker's utterances employ verbs metaphorically, one must also keep in mind that verbs are semantically literal first, and metaphorical second through the effects of semantic extension. One such observation of the literal interpretation of the verbs *get, grasp, hear, see,* and *feel* can be attributed to the fact that verbs are, at the most basic level, experiential. However, these verbs are more often interpreted as verbs denoting perception, as can be supported via the findings of the SBC data. Action typically calls for an immediate (and bodily) response to events outside of oneself, but in contexts of perception, the experiencer is not able to enact the verb. Rather, they simply take note of an experience in which a particular verb fits semantically and can be described in such terms (such as *feeling* hungry, *seeing* the meaning of an opinion, or *hearing* (acknowledging) another person's emotional dilemma).

Verbs convey experiences and actions quite effectively, and while speakers have honed verb use in literal contexts, their semantic extensions are much more liberally applied. That is to say that verbs express more polysemy than any other part of speech in the English language (Fellbaum 1990: 279, 299), and so their extensions into the metaphoric semanticity of speech are

vast and complex. Additionally, it can be argued that metaphors using any of the five key verbs being analyzed herein activate a certain response from the listener, as presumably intended by the speaker. To elaborate on this point, Boogart and Reuneker (2017) state that

> In epistemic conditionals, the relation between antecedent and consequent is primarily construed at the level of subjects of conceptualization, that is, the speaker construes one object of conceptualization as an argument for another, based on a real-world causal connection and therefore the degree of intersubjectivity is higher. In speech-act and metalinguistic conditionals, the relation resides solely on the intersubjective level, that is, relating a felicity condition in the antecedent to a speech act in the consequent or commenting on the linguistic form of an utterance (Boogart & Reuneker 2017: 203).

This interpretation of intersubjectivity provides a certain degree of clarity regarding how the speaker and listener are construing and inserting examples from real-world phenomena to form (and introduce already conventionalized) VP metaphors. This form of conceptual common ground is noted here to most prominently appear through the use of sensation-based, experiential verbs.

Moving forward from this basis of intersubjectivity and construal, there is another layer to consider which involves the embodiment of these action-led meaning potentials which are instilled through verbs. The position held by researchers investigating embodiment in intersubjectivity suggest that, concerning emotional states more specifically,

> …the internal and external sides of emotion are intimately connected through bodily resonance, allowing them to be perceived directly, without the need for inference or simulation. Of course, emotions can be conceptualized in different ways, in different cultures and languages (e.g. as ‘forces’ or ‘fluids’) but these are secondary, language-mediated, and indisputably metaphorical constructions (Zlatev 2017: 182).

Clearly, there is no step-by-step process for presenting or construing emotional, embodied, or metaphorical language, but these elements are applied in a meaningful way as they ‘resonate’ in the physical interpretations of these perceptive influences in the bodies of both speaker and listener.

However, the SBC data demonstrates a potential contradiction to Zlatev’s (2017) view that emotional states need not involve any simulation or inference to resonate in the mind and body of a listener. The verb *feel* appears 84 times in the emotional interpretation of the

metaphorical context (as per Figure 6) to dispute the notion that emotions are immune to the external influences which are presented to a listener through the verbs being used. Although, experiencing an emotion (or several), alone, without any prompting from the outside world is more likely what Zlatev (2017) is describing, but this issue raises another inquiry: Are the semantics of emotional *feel* in the SBC organic (i.e. un-prompted), simulated by the use of this verb, or a result of "secondary, language-mediated[…]constructions" (Zlatev 2017: 182)?

Correspondingly, what can be said for the intended semantics of a speaker's utterances when emotional applications of verbs such as *feel, see,* and *hear* appear? To glean as much information as possible from these questions and their potential solutions, let us consider further evidence of the emotional side of metaphor-based applications of *feel, see,* and *hear* and why someone's emotions *feel* a certain way, being *seen* or *heard* by an organization or a close friend is important, and why *hearing* a sample of information by reading a newspaper is also perfectly understandable – and perhaps slightly more meaningful than simply reading about it. These notions and others are brought to light through the observations of Subsection 4.3.2 below, specifically regarding the verb *feel* and its presence in empathetic clauses.

4.3.2 Influences of empathy through the verb "feel"

The verb *feel* evokes several polysemous interpretations to the mind – or more specifically, the mental schemas – of the listener. These interpretations have been detailed in brief throughout earlier sections of the present analysis, but there is more to this lexical item than what meets one's nerve endings when engaging in the action of feeling something with one's hands. There also exists the English expression, *I feel you* which denotes the extension of someone's emotional feeling towards another person (empathy). This utterance is typically used when one person articulates their emotional state, but is usually reserved for instances in which sadness or anger are being conveyed by one of the individuals in a conversation. Someone can express that they are feeling a certain way emotionally due to some event which has impacted them negatively, and so the other person will likely interject with *I feel you* or better phrased for the present investigative purposes: *I empathize with you.*

To *feel* someone else's sadness is arguably the most common emotional trait which accompanies this phrase, and serves to signify that the speaker is open to expressing empathy in the hopes that this utterance will provide solidarity in the midst of their speech partner's

discomfort. It is less clear, however, how *feel* has managed to extend beyond the categories of singular, bodily *feel* (such as *I don't feel well*) and that of using one's hands to *feel* something outside oneself.

To demonstrate this notion further, consider the following SBC examples and how they flow just as smoothly from speaker to listener as seen in previous accounts involving different verbs:

(15) Self-oriented (social perception) *feel*

SBC 002 Lambada

925.37 926.84	JAMIE:	Is she a good .. lambada dancer?
926.84 928.07		I can't imagine her being a --
928.07 930.08	MILES:	... Yeah but,
930.08 931.88		I didn't ***feel*** like she taught it any different --
931.88 934.53		... significantly differently than when !Vivian and !Jeff taught it.
934.58 935.53		... I mean,
935.53 936.43		.. cause they [do it] &
935.83 936.43	JAMIE:	[real basic],
936.38 937.43		.. and [2real simple2].
936.83 937.43	MILES:	& [2d=ifferent2],
937.43 938.63		.. than Brazilians do it.

(16) Other-oriented (perception) *feel*

SBC 044 He knows

172.101 172.543	LAJUAN:	but,
172.543 174.487		.. % .. black people also=,
174.487 175.897		th- those that have more,
175.897 177.433		tried to teach you to be stro=nger.
177.433 180.629		(H) But I think they instilled s- tried m- tried to make me so strong,
180.629 181.871		(H) that they forgo=t,
181.871 183.489		... that I was a person.
183.489 184.054		And I mean like,
184.054 186.002		I I often ***feel*** like at times that,
186.002 189.224		(H) .. (TSK) and maybe it's the gayness coming out in me but,
189.224 191.124		... (H) I don't like it,
191.124 192.066		like and when I was ho=me,
192.066 193.271		.. just went home to Indiana.
193.271 195.016		(H) I went to hug my sister,
195.016 198.072		.. and I still ***feel*** that she finds a coldness in hugging.
198.072 199.297	CAM:	... She doesn't like to hug.
199.297 200.056	LAJUAN:	.. (H)= No.
200.056 201.580		My family's not very much h=ugging.

(17) (Self) bodily sensation *feel*

SBC 043 Try a couple spoonfuls

465.459	465.819	ANNETTE:	[(SNIFF)]
465.819	467.197		Yeah I talked ~Louis into going out tonight.
467.197	469.713	ALICE:	... (H) I almost called Karen,
469.713	471.703		to see if she wanted to take in a movie or something,
471.703	473.245		... but I came home from work,
473.245	474.615		and then I didn't ***feel*** that great.
474.615	474.981		.. So,
474.981	475.776	ANNETTE:	... Mhm.
475.776	477.776	ALICE:	... I lay down and I thought well (Hx),
477.776	479.528		Diane and I are going to Sun Valley tomorrow.

(18) (Other - belief) *feel*

SBC 002 Lambada

644.42	645.01	MILES:	(H) .. Well,
645.01	646.25		if you're HIV positive,
646.25	647.64		... it's the same difference,
647.64	648.04	HAROLD:	... [Mhm].
647.64	648.64	MILES:	[since they] ***feel*** that,
648.64	651.40		... sooner or later [2you'll come2] down [3with the3] actual disease.
649.56	650.21	PETE:	[2Mhm2].
650.16	650.88	JAMIE:	[3Yeah3].
651.40	652.99	MILES:	... But that's what she sai=d.
652.99	655.28		.. Now I [don't] know if she meant the Bay area or San Francisco,
653.13	653.51	JAMIE:	[X]
655.28	656.95	MILES:	(H) but those are some ferocious numbers,
656.95	657.60		if [one] [2out of2] &
657.07	657.37	PETE:	[Yeah].

(19) Speaker feeling other person’s knee injury (literal, with use of the hand)

SBC 046 Flumpity-bump down the hill

467.188	467.583	REED:	Yeah.
467.583	467.935		Right.
467.935	469.927		... Let's see .. how rough that is.
469.927	470.821		Let your knee down.
470.821	472.284		.. Alright now straighten your knee out.
472.284	472.586		.. Yeah,
472.586	473.271		you've got a little --
473.271	474.699		... [Put your] --
474.432	474.687	DARREN:	[Yeah].
474.699	475.209	REED:	Put your hand.
475.209	475.651		You ***feel*** it?

475.651 476.198 DARREN: .. Yeah,
476.198 476.999 .. [it's X].
476.519 477.672 REED: [But that's] pretty typical.

In example (15), the conversation unfolding between the two participants “Jamie” and “Miles,” as “Miles” describes a style of dance known as lambada and the dance instructor. The listener “Jamie” replies to the initial use of the VP involving the verb *feel* by continuing with the semantically metaphorical context of *feeling* a certain way towards these topics by elaborating on the points made by the speaker. “Jamie” responds in a short and simple way here, but it is clear that this listener knows who and what the speaker is talking about, and so exhibits no discernable hesitation when providing additional input.

The same can be observed through the other examples seen above, but particularly prominent fragments of evidence that the speaker has successfully guided the listener to reaching an intended form of semantic construal are found in Examples (16) and (19), as the listeners respond directly to the semantic stimuli being presented to them by the speaker. However, what is there to be said for directly empathetic forms of *feel* in which a speaker could say the common phrase, *I feel you*? A simple explanation can be reached by noting the ways in which children tend to speak when describing their emotional states at any given time. It comes as no surprise to an English speaker that children will often exclaim that someone *hurt their feelings* or in this case, their emotions have been ‘hurt’ in the sense that another individual has made the speaker experience an unpleasant emotional sensation – be it rejection from a group of other children, bullying of any sort, or being told something generally unkind.

Referring back to the examples above (with the exception of example (19)), these conversations can be assigned to the metaphoric context, but the prospect of placing many statements made regarding the verb *feel* into a different category altogether is quite intriguing: That of empathetic – or more broadly, emotional – expressions. English speakers are quite familiar with describing their emotional states as perceiving a sensation often associated with their bodies, just as anger makes a person literally *feel* hot and may cause sections of their skin to change to a crimson shade, or sadness can *feel* like a literal pain in one’s chest (Sullivan 2017: 388-390). As English speakers develop beyond the scope of expressing emotions as someone ‘hurting’ their feelings (although this is still a valid expression at various points throughout the lifespan), teenagers and adults relate to their emotional states more commonly by expanding

upon this metaphorical phrasing, and thus, forming semantic extensions for the verb *feel*. This can be observed as follows: [*Something, someone, or first person singular] make(s) me feel (like)* [X emotion] such as "*I feel happy*" or "*I feel happy for them.*"

These narratives permeate our daily conversations. In this way, *feel* is a very deeply engrained, verb-based example of these two types of metaphoric expressions as well as our ability to expand upon their primary uses to make more affective VP-guided statements when using the verb *feel* as the cornerstone of this phenomenon. Furthermore, the statements which are seen throughout the SBC are recorded as metaphorical when there is no evidence of the physical use of one's hands to reach out and examine an object or area of a person. Therefore, these findings support the notion that a semantic map can be drawn for this verb.

Example (20) below provides a more empathetic side of the verb *feel* as the speaker, "Jenn," tells everyone else in the room how someone *feels*:

(20) SBC 033 Guilt

234.833	238.422	JENN:	There4] ca=n be *somebody who [5makes you **feel*** like you ha5]=ve a responsibility,
235.966	236.365	LEANNE:	[5~Liz,
236.365	237.127		this is <X moving X>5].
238.422	239.233	JENN:	(H) In a case,
239.233	241.180		(H) when that is not necess[arily clear].
240.440	241.180	LISBETH:	[<F Ah= F>].
241.180	242.619		So [2guilt2] is not the issue,
241.354	241.782	LAURA:	[2Ah=2].
242.619	244.985	LISBETH:	the issue is a denial of responsibility.
244.985	245.636	JENN:	No no no,
245.636	245.929		no,
245.929	248.090		you [totally turned what I said around].
246.558	248.090	LISBETH:	[<P XXX <X where I set those X>P>].
248.090	249.230	JENN:	There's [2an ac2] --
248.572	249.230	RICHARD:	[2@@2]
249.230	250.184	JENN:	agent there,
250.184	252.152		*who is making you **feel** responsible*,
252.152	254.199		for something that you are not responsible for.

Another perspective regarding how the listener's construal is guided via emotionally charged language, such as the use of the verb *feel*, is discussed throughout the work of Holyoak and Stamenković (2018). These authors describe physical sensation being applied to the

perception of emotion by asserting that "Ontological metaphors involve ways of viewing intangible or abstract concepts (e.g., *feelings*, activities, and ideas) as entities or substances—they in effect 'give being' to concepts that do not physically exist (e.g., INFLATION IS AN ENTITY, IDEAS ARE OBJECTS) . Experimental studies motivated by the conceptual mapping approach are exemplified by work aimed at demonstrating the psychological reality of the conceptual mapping ANGER IS HEATED FLUID IN A CONTAINER" (Holyoak & Stamenković 2018: 649; italics added).

Therefore, examples (15) to (20) show the factors and phenomena involved when engaging emotionally through the verb *feel* and how this is understood by the listener's ability to construe the situation in which the verbs of empathy are used. Such understanding can be seen through the listener's comments which build upon what the speaker has noted. For instance, in example (15) the speaker, "Miles," mentions that he "didn't *feel* like she [the dance instructor] taught it [the dance style] any different" (930.08-931.88 SBC 002 *Lambada*), while the listener, "Jamie," responds by following the same vein of thought, knowing that *feel* in this context is to be interpreted metaphorically and concerning Miles' opinion. The listener follows the speaker's comment about the dance instructors' styles by saying "[real basic],…and [2real simple2]" (935.83-937.43).

These observations serve to further provide in-depth contextual points to analyze so as to better understand how *feel* appears metaphorically, and that dialogical cues are present to signal metaphoric and literal interpretations of verbs. That being said, what about other verbs involving physical senses and perceptions which can only be established via the reference to our bodily experiences? Can these perceptions impact other categories of human senses, or is *feeling* the sole experience allotted to metaphorical meaning? To investigate these questions, Subsection 4.3.3 below notes how VP utterances also include *hear* and *see* to indicate knowledge and the passing on, or reception, of information.

4.3.3 To "hear" and to "see" is to know

Many authors taking empirical strides in the cognitive-linguistic discipline seek to understand and explain metaphor, particularly when there is a sense of embodiment involved in which the physical body must serve as a bridge for the speaker to allow for their meanings to reach the right nodes of the listener's conceptual and linguistic synapses. To accomplish this, Lakoff and Johnson (1980a), as noted at numerous intervals thus far, appear at the helm of these initial

explorations and noting the difficulty in separating our physical selves from our more abstracted, passionate, idealistic selves. The result is a reliance on physical familiarity which pervades the metaphors we use in speech by enlisting our bodies to aid our construal to reach attainable conceptual frameworks.

Furthermore, Lakoff and Johnson (1980a) note that the use of one's senses constitute structural metaphors, which are defined as involving "the structuring of one kind of experience or activity in terms of another kind of experience or activity" (Lakoff & Johnson 1980b: 197). These authors further cite examples of speech derived from common dialogical metaphors which contain references to human senses, such as *seeing* something from someone else's point of view regarding a certain topic (Lakoff & Johnson 1980b: 197). There are several examples brought to light by Lakoff and Johnson's (1980a) general notion regarding how metaphors stem from one's conceptual system to combine the common characteristics shared between the physical world and the imagined, but there are also unique features to consider when analyzing the impact that physical senses have on our ability to conceptualize meaning when the verbs indicating such senses are made to be the focal point of an utterance.

Thus, work has been done by Lakoff (1988) on the subject of visual and auditory influences being used in speech. Considerable findings of Lakoff's (1988) work revolve around his observations, as well as those credited to Johnson (1987), regarding conceptualization of meaning through one's range of physical senses and any experiences relating to them or perceived through them – which can be expressed literally or metaphorically (Lakoff 1988: 120). This approach to conceptualization based upon physical experiences is known as "experientialist cognition" (Lakoff 1988: 120).

Lakoff (1988) asserts that this approach within the cognitive-linguistic tradition and semantic reasoning "is to be taken in the broad sense, including basic sensory-motor, emotional, social, and other experiences of a sort available to all normal human beings – and especially *innate capacities* that shape such experience and make it possible" (Lakoff 1988: 120; italics in original). As an extension of this logic, it can be concluded that *seeing* and *hearing* – fitting the description of innate capacities described by Lakoff (1988) – are used to guide a listener to construe meaning in one simultaneous, intersubjective motion.

Moreover, Lakoff and Johnson (1980a) offer a series of examples in which the verb *see* is used to signify understanding, or even attempting to guide another person to reaching the same

conclusions made by the speaker. Some examples include “I see what you’re saying. It looks different from my point of view. What is your outlook on that? Now I’ve got the whole picture. Let me point something out to you. That’s an insightful idea” (Lakoff & Johnson 1980a: 197). Additionally, it is important to note that these examples demonstrate the use of UNDERSTANDING IS SEEING in both conceptual metaphors as well as linguistic ones; thus, supporting the notion that the verb *see* exhibits several varied extensions in the metaphorical context (see Lakoff & Johnson 1980a: 197).

Similarly, many instances in the SBC data demonstrate how the speaker uses *see* as indicating to the listener that their attention is required for something (recall Subsection 4.1.1). These instances align with the assertions of Lakoff (1988) as well as Lakoff and Johnson (1980a) by demonstrating that real-world experiences are bound to the ways in which we conceptualize other meanings beyond the physical interpretations and events perceived with the eyes, alone. But there are other senses which follow a similar polysemous narrative. Another sense we rely upon to convey metaphorical meanings is *hearing.* However, is *hear* interpreted in the same ways as *see*? Do overlapping polysemous meanings occur between these two verbs? If not, how is *hearing* different?

To better answer these questions, one must first review what is known about the literal *hear* and the related meanings conveyed in the metaphorical sense. For instance, we know that the literal interpretation of *hearing* is grounded in the experiential ability to perceive auditory stimulation via the ears. It has also been noted throughout this analysis that *hearing* can mean obtaining information (by other means, such as reading something and stating that one has *heard about* a certain topic). However, these meanings sound quite similar to the observations found regarding the verb *see*, as in one can obtain information by *hearing* or *seeing* in both literal and metaphorical expressions of gaining information.

To illustrate further, the semantic maps drawn for *see* and *hear* are shown below. Although these maps have appeared previously (see Subsection 4.1.1), it is beneficial to compare Figures 4 and 5 closely to observe which of their meanings overlap. To illustrate this, a new semantic map, Figure 7, has been drawn below with the similarities shared by *hear* and *see* bolded. Note that the core difference in Figure 7 is with *hearing* entailing one acquires information, but this does not always mean that the speaker understands. However, an exception to this instance is when empathy is implied, such as “*I hear you*,” meaning either “*I understand*

your experiences" or "*I empathize with you and your situation*." *See* shares overlapping semanticity with *hear* in the sense that both can be interpreted as meaning 'to gain the listener's attention regarding information which is in the present, or from a separate time and space.'

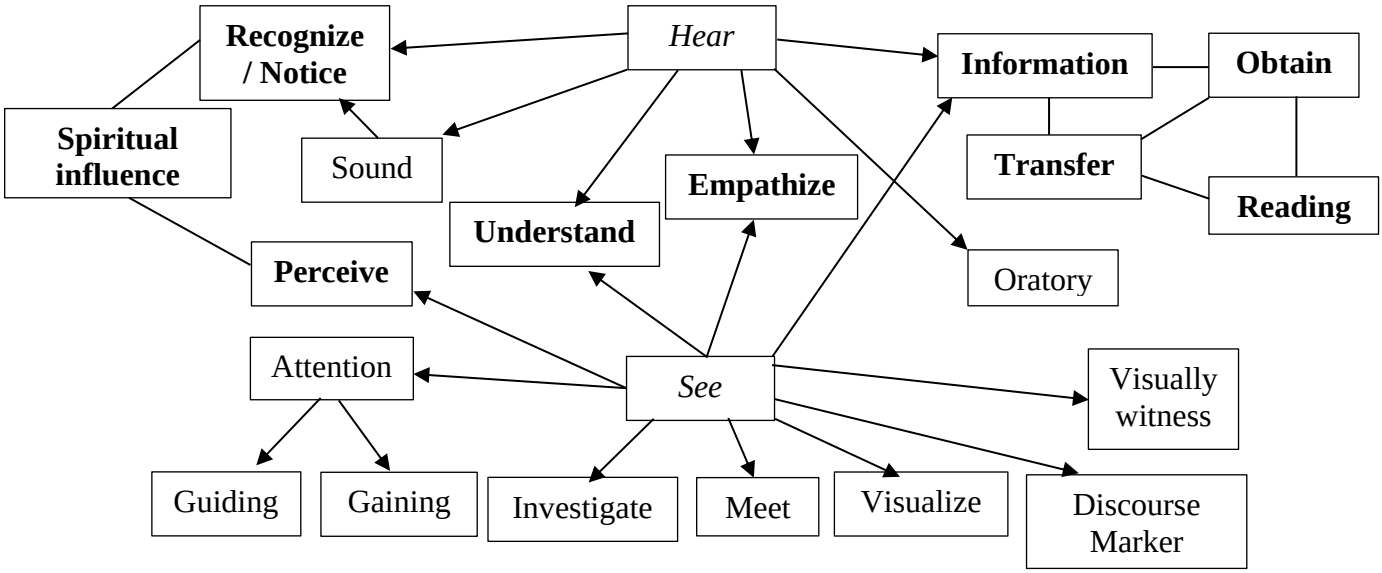

Figure 7: Comparative semantic map drawn for see *and* hear *based upon use in the SBC*

Some examples from the SBC are "Oh I didn't *hear*..anything about it" (SBC 031 *Tastes Very Special*: 1195.170 1196.850), and "*see* it's all over the tv" (SBC 001 *Actual Blacksmithing*: 817.75 819.19). As usual, the verbs being analyzed have been italicized and bolded by the researcher to better identify them. Note also that there is a *heard* token that has not been emphasized in example (21), as this token has not been counted in the study due to its tense inflection which deviates from the focus of the study (that is, only quantifying tokens of *hear* in its root form).

(21) SBC 031 Tastes very special

1180.4101181.662ROSEMARY: [2What happened Sunday2].
1181.6621182.165BETH: .. Oh,
1182.1651183.899 .. %I just ... about had it.
1183.8991185.124 With Anna and Sharon.
1185.1241186.606 <P<X And I X>P> .. told .. Sharon,
1186.6061187.757SHERRY: .. [What they were just] --
1187.0541188.303ROSEMARY: [(H) What were th]ey doing.

1188.303 1188.825 BETH: ... They were --
1188.825 1192.294 .. Mostly Sharon .. got on <X her X> bandwagon about Missus ~Jackson,
1192.294 1193.697 .. and I just about [came un-] --
1193.018 1193.696 ROSEMARY: [About who]?
1193.696 1194.633 SHERRY: Missus [2~Jackson2]?
1194.057 1195.170 BETH: [2Jean ~Jack2]son?
1195.170 1196.850 ROSEMARY: ... [3Oh I didn't ***hear*** .. anything about it3].
1195.492 1196.450 BETH: [3XXXX?
1196.450 1196.902 (H) N3]o,
1196.902 1197.675 you'd left.
1197.675 1198.315 ROSEMARY: (H)[= Oh,
1197.895 1198.489 SHERRY: [It was later].
1198.315 1199.137 ROSEMARY: well t]ell me a[2bout it2].
1198.967 1199.137 BETH: [2(Hx)2]
1199.137 1200.399 ROSEMARY: Cause I hadn't [3heard all of this3].
1199.668 1201.074 BETH: [3(H) She was3] saying that,
1201.074 1202.240 SHERRY: ... (H)
1202.240 1203.387 BETH: .. (TSK) (H) that,
1203.387 1203.990 ... that,
1203.990 1206.254 ... we were talking about,
1206.254 1206.891 .. um,
1206.891 1210.035 ... different students being held back for different reasons and that,
1210.035 1210.965 (H) about,
1210.965 1213.287 ... children ... being put,
1213.287 1214.730 oh I was telling .. her about,
1214.730 1217.975 .. that one of your girls ... read at such a low level <X that X>,
1217.975 1218.723 really should have been,
1218.723 1221.578 .. (SNIFF) and they said well why didn't they put her in .. remedial,
1221.578 1222.246 .. and I said,
1222.246 1223.274 well I don't know [but],
1222.990 1224.266 ROSEMARY: [She] was in reme[2dial2].

(22) SBC 001 Actual blacksmithing

810.96 813.37 ... <HI What is m- ... blowing out of there HI>.
813.37 813.63 DORIS: Well,
813.63 815.37 that's what happens with that air conditioner.
815.37 815.78 it's just --
815.78 817.75 ... it gets dust accumulated in it,
817.75 819.19 ***see*** it's all over the TV=.
819.19 823.10 LYNNE: ... It was just o=n last night,
823.10 824.54 how does it get du=st [in it already].
823.92 824.27 DORIS: [We=ll,
824.27 824.54 I] --
824.54 825.49 It .. ~Mae ~Lynne,

825.49 829.09 .. for one thing the .. filters are dirty because it .. it so --
829.09 829.90 .. been so dry.
829.90 830.87 ... And the --
830.87 832.04 .. it all comes acrost,
832.04 833.55 ... the road.
833.55 834.30 .. you know?
834.30 834.93 .. and,
834.93 836.68 .. and then it builds up real bad with,
836.68 838.84 ... (H) (COUGH) deposits,
838.84 839.77 out of the water.
839.77 840.92 LYNNE: Oh=.
840.92 842.84 DORIS: [In other words] I .. should be .. change filters.
841.08 841.39 LYNNE: [Ugh=].
842.84 843.82 ... Go=d.
843.82 844.83 DORIS: ... I know.
844.83 846.10 ... It won't last long.
846.10 849.83 ... But,
849.83 851.43 .. it sure does make a mess in the house.
851.43 852.03 LYNNE: Yeah=.
852.08 852.83 it [makes a mess].
852.39 853.19 DORIS: [<X I need X> new] filters.

An English speaker can also state, *Hear* me out…*I hear* what you're saying…It's nice for someone to really *hear* what I'm saying…and so forth. These examples show how the verb *hear* encourage the listener to pay closer attention to what is being said, or for the speaker to inform their listener that another statement or opinion is being acknowledged by someone else. Recalling previous discussions regarding emotions implied through the verb *feel*, it is clear that *hear* can also function in much the same way semantically, and when the conditions of the context allow for construal to occur.

Finally, consider again the findings presented in Table 1. Recall that there are more instances of literal *hear* (49 tokens or 73.1% of all *hear* tokens) than there are metaphorical (10 tokens or 14.5%), whereas there is only a slight difference between the total number of literal *see* (351 tokens or 47.3%) and metaphorical *see* (362 tokens or 48.8%). There are also 8 ambiguous instances of *hear* (11.9%), as well as 29 ambiguous examples of *see* (3.9%). These token values suggest that, although there are subtle instances of overlapping meaning between *hear* and *see*, *hear* is applied more often in the literal context compared to the metaphorical, while *see* is used more often in the metaphorical context versus the literal.

Such observations further demonstrate how speakers in the SBC rely upon one semantic interpretation and related context more often than the other depending on the verb, and that this difference between *hear* and *see* illuminates what appears to be taking place in the polysemy of *see* specifically; suggesting that its semantic interpretations are further extended than interpretations of *hear*. In light of these perspectives and comparative findings, physical senses appear to be concrete, referential anchors by which our experiences can be conceptualized and expanded upon. Our bodily experiences also help to guide semantic construal, particularly when these deeply embedded experiences are activated by a speaker's use of sense-based verbs, such as *hear* and *see*. While exploring the instances of semantic extension overlap, emotional and empathetic significance tells us that incorporating the senses through verbs requiring their use (or their metaphorical extensions) provides an informed way of investigating what makes these verbs semantically rich, contextually diverse, and experientially informative. Following this discussion are the accounts of Section 4.4, which highlights the factors pertaining to VP-based construal through prototypical uses of verbs and how they extend into the metaphorical context.

4.4 The use of metaphor occurring in VP construal: Literal verbs and their metaphorical uses

The present section seeks to illuminate how semantic construal takes shape when verbs, which are more generally literal according to their base semantics, fit seamlessly into the metaphoric context. This observation is viewed in the framework of assuming that such a categorical distinction is determined by the overall context of the VP being either literal or metaphorical. Moreover, several findings have come to light within the last two decades or so which provide supporting evidence to this context-dependent claim.

For instance, Bowdle and Gentner (2005: 199) iterate "Which of these mappings wins will depend on a number of factors, including the context of the metaphor and the relative salience of each meaning of the base term," with the 'base term' in the current study being recognized as the base interpretation (i.e. the primary dictionary semantics) of a verb. Once this contextual factor is established through the utterances made between speaker and listener , including the overall topic of conversation, the verbs used by the speaker follow suit – and are construed by the listener to match the characteristics of a literal or metaphorical semantic outcome.

However, there are other factors to consider regarding the literal forms in which these

verbs appear, how the construal of these verbs are influenced by the linguistic metaphors to which they are linked, if their semantics are made predictable through other forms of discourse structuring, and how prototypical interpretations of these verbs are identified. The following Subsection 4.4.1 outlines verb use by exploring varying polysemous interpretations, detailed accounts of the influences surrounding verbs in conjunction with embodiment-related speech, as well as how the semantic construal of verbs appears to be closely linked to the context being conveyed. These factors are propounded to determine the construal of the verb.

4.4.1 Distinguishing factors: Semantically predictive VPs according to context

It has been noted thus far that the context of a VP acts upon the verb in order for the listener to explicate semantic interpretations based upon the verb and its context in tandem. This discussion leads us now to investigate other factors which may be responsible for allowing each of the five key verbs to establish highly polysemous semantic maps as seen through factors pertaining to the semantically predictive VPs which carry such extension potential.

Similarly, Casasanto's (2009: 143) concluding remarks regarding experimentation specific to the predictability factors of linguistic and conceptual metaphors specific to the listener describe how

> even when linguistic metaphors fail to predict the exact relationships revealed by behavioural tests, they nevertheless point to important links between the source and target domains. Space and time, speed and time, and proximity and similarity are not unrelated: rather, they appear to be related in more complex ways than linguistic analyses alone can discover (Casasanto 2009: 143).

This statement reveals how on a larger scale with well-established, phrasal metaphors, there is some indication through linguistic metaphors that the listener is able to draw from them the underlying concept which a speaker is conveying. However, how can this point be applied to what has been noted throughout the current study regarding VPs and the individual verbs they use? One way to see how there is, indeed, a form of semantic predictability brought about by the introduction of the context is noting where *get, grasp, hear, see,* and *feel* appear regarding their base concepts.

Rather than purely observing how often these verbs appear literally versus metaphorically, another way to see how context guides semantic construal by way of metaphoric

expression is to look at what type of metaphor is being expressed. Along this line of thought, it has been mentioned previously that the types of metaphor extend beyond simply linguistic: There are also types specific to topic (ideas, passage of time, space, et cetera). As such, many of the speakers recorded within the SBC use only four out of the five key verbs to demonstrate emotion, stative occurrences, drawing the listener's attention to various locative foci in a room, as well as indicators of acquiring information (and comprehending it as often noted throughout the search results of the COCA for *grasp*, which is similar to uses of *get* in the SBC).

In conclusion, the present chapter has sought to demonstrate through discussions surrounding the SBC data, tables, and examples of speaker and listener interactions that several dialogical phenomena are taking place. These phenomena have included construal guidance on the basis of embodied intersubjectivity, accounts of experientialist perspectives, polysemy and prototypical interpretations of verbs and their contexts, as well as context-to-verb semantic predictability. This chapter has demonstrated through the SBC data, primarily, that polysemous extensions of verbs and the inferential processes they encourage are made possible through metaphoric VPs.

What remains to be explored are the ways in which this study creates a new perspective in support of how semantic construal reflects what is already known about this topic in the field of cognitive linguistics, and how the three main research questions and their resulting findings demonstrate the validity of taking a closer look at the cognitive linguistic side of context and verb influences in the mind of a listener. In addition to these investigative points, Chapter 5 below addresses the overall implications this study has revealed, as well as how its findings may serve to predict where linguistic analyses of this kind may lead related cognitive sciences in the future.

Chapter 5

Concluding remarks: Supporting evidence for the motivating factors influencing the metaphorical assignment of specified verbs in English

Get, *hear*, *see*, and *feel*, as they are used metaphorically in the SBC, have been determined in this study to be indicators of several linguistic phenomena, such as providing evidence of semantic extension, a greater frequency of metaphoric verb use compared to literal, and contextual discourse cues which indicate the intended central and extended meanings of a particular verb. Additionally, the semantic maps for these four verbs show that *get* is the most semantically extended verb (and the most common within the metaphoric context) in comparison to the other verbs analyzed, with *see* and *feel* also contributing more tokens to the metaphoric context versus the literal.

However, examining how *grasp* might be used among speakers of the SBC has resulted in token non-existence, whereas the COCA shows *grasp* being utilized by speakers and writers frequently, and in the metaphoric context. As an additional finding, *grasp* tokens in the COCA reach a total of 13,271. The full extent to which these tokens are metaphorical is difficult to determine, but the coupling of *grasp* and conceptual understanding, specifically, is common among speakers and writers within the COCA database, as several examples of this verb when searching for "*Grasp* this" are followed by: "[…]fundamental idea" (Nye & Ham 2014), "[…]enormous level of hypocrisy" (Morgenstern 2012), "[…]It's not a really hard concept" (McCormick 1994), and "[…]outrageous scenario" (Klems 2012). Certainly, *grasp* appears in more selective semantic and situational environments compared to the other verbs analyzed. Such findings have been explored in Chapter 4 when discussing *grasp* and *get* insomuch that there are metaphoric parallels shared between these two verbs, with *grasp* being employed for intense situations and/or when urgency of action is called for. However, it is safe to propose that *grasp* appears more often metaphorically than it does literally in the COCA, as several speech environments, themselves, are metaphorical in terms of being philosophical, hypothetical, and entirely fictional. Due to the scope of the present study, just how far the extent to which *grasp* is used metaphorically is one such question that could benefit from further research on this verb, in particular.

Along this line of thought, recall the introductory remarks of the current investigation which presented the following research questions:

1. Taking a corpus-based approach, what is the extent to which verbs appear literally and metaphorically?
2. What is taking place in the discourse context to guide the listener to make correct inferences regarding literal or metaphorical meaning based on the speaker's (or writer's) use of the verb?
And finally,
3. By looking at VP-specific discourse found in a corpus, can semantic maps be drawn for certain verbs to aid in understanding their central and extended meanings?

These questions have encouraged discussions regarding what is currently known about verb polysemy and the semantic maps to which they can be linked, how speakers and listeners interact based upon the context being conveyed, the cognitive factors motivating semantic construal, and the dialogical cues which encourage inferred verb meanings. By exploring how these questions have found supporting evidence via investigations into the SBC and the COCA, the present chapter aims to summarize and clarify what has been found, what it means, and how this study is poised to encourage further explorations into questions not yet answered. To follow through with this narrative, Section 5.1 provides a closer look into the findings, while citing additional literature sources which further explain these results.

Section 5.2 describes the construal behaviours we rely upon to understand the semantics conveyed in VPs depending upon context. Section 5.3 addresses how this study could have been conducted differently, including any changes the researcher, or others, could make in future studies analyzing similar phenomena surrounding verb use and metaphor. Finally, Section 5.4 concludes this study by asserting its relevance to cognitive linguistic theory and corpus linguistics.

5.1 Summary of findings

Metaphoric VPs have been noted in the present study to indicate polysemous extension of verbs as well as contextual development aiding in the inference of verbs. However, there have also been instances in the SBC data which indicate that literal contexts are not to be disregarded when

this influence, too, appears in the semantic maps for *get*, *hear*, *see*, and *feel*. Such instances have been shown via *hear* most notably, as this verb appears within the SBC as being more closely tied to literal context VPs. This finding has been determined by noting the token values of this verb according to each context, showing 49 tokens (73.1%) in the literal, 10 tokens (14.5%) in the metaphorical, and 8 ambiguous tokens (11.9%).

With these figures in mind, it has also been found that *see* is used almost equally in both contexts, with the metaphorical totalling 362 tokens (48.8%), the literal totalling 351 tokens (47.3%), and 29 ambiguous tokens (3.9%). *Get*, however, establishes a stark contrast between the contexts in use, with these tokens totalling 678 (or 76.7%) in the metaphorical with only 184 tokens (20.8%) in the literal. It is curious to note also that the token values for *get* reach a combined total of 885 or 49.7% (the most commonly used verb among the four analyzed in the SBC), in which only 23 tokens (2.6%) appear as ambiguous. This is important to note, as such figures demonstrate that the verb *get* fits almost seamlessly into either the literal or metaphorical context. This finding indicates that well-established semantic extensions stem from this verb.

This finding also indicates that *get* is a truly beneficial verb to analyze for the purposes of the present study, as many other researchers suggest that it is the most highly polysemous verb in the English language, and yet, it is also the most organized in terms of near-strict use in either the literal or metaphorical context (Fellbaum 1990). *Feel* has also been found to appear much more often in the metaphorical context versus the literal, with 84 tokens in the metaphorical, and 4 tokens in the literal. Moreover, *feel* does not contribute any tokens to the ambiguous column of Table 1; making it's semantics seem quite clear.

Along this line of thought, Fellbaum (1990) asserts that the most frequently used verbs are also the most polysemous (Fellbaum 1990: 279). By this logic, *get* is quite pragmatic for conveying various semantics and at varying intervals in an English conversation, as it is used most often and it is the most semantically extended verb among those analyzed in the SBC. Furthermore, recall that the contextual token totals for all four verbs investigated reach 1,134 metaphorical, 588 literal, and 60 ambiguous. These findings highlight the fact that metaphorical verb tokens far outnumber those in the literal, with only 60 verb tokens expressing unclear semantics out of the combined number of total verb tokens being 1,782.

Therefore, it is possible to glean from this information that, indeed, the extent to which these verbs are used metaphorically versus literally depends upon the verb perhaps just as much

as its surrounding context. Taking these findings into account, the corpus-based approach employed by the current investigation has aided in determining the verbs which are greatly extended according to the meanings they evoke which vary from their central semantics. This observation means that *get* is the most semantically extended verb out of the five, followed by *see,* then *hear*, then *feel*, and finally, *grasp,* showing the least polysemy. For instance, *grasp* seems to exclusively mean (in the metaphorical context) understanding the information one is given and not simply having it, as *get* accomplishes.

Also, *grasp* requires specific discourse pairings (i.e. "*grasp* [indefinite/definite article]," or "*grasp* [concept/idea/abstract topic]"), but such instances are not fully comparable to SBC findings as these *grasp* examples only appear in the COCA. *See,* according to Figure 5, indicates semantic extensions into various literal and metaphorical interpretations such as understanding, visual cues/perception, mental visualization, investigation, physically meeting with people, and so forth. *Hear* has been shown to indicate gaining information, non-literal perception of a 'voice' or experiences of a spiritual nature, literal perception, and empathy; semantic qualities which have also been shown through Figure 7 to overlap with *see*. Finally, *feel* means to experience something physically (internal and/or external), emotions/empathy, and guiding others' experiences or perceptions (emotionally or physically).

The findings specific to the second question of this study note that the discourse context has demonstrated motivation for the meaning of verbs as they are used within their VPs. In Chapter 4, this motivation has been characterized as being the link between contexts and verbs insomuch that the context overall determines the semantic construal of the verb. Metaphoric and literal VPs, specifically, influence individual verb semantics by way of relying upon the dialogical topic which causes the inference of the verb to match with common points of relevance in an utterance. For instance, the discourse cues appearing in the SBC recordings which indicate when a verb is more likely literal than metaphorical include; literal nouns, situations of physicality, and/or reference(s) to location, as well as physical perceptions when there is spoken evidence of a literal object or phenomenon to be perceived. Metaphoric discourse cues have included: References to ideas and concepts, emotional expressions/empathetic statements, and indications of non-literal movement or progression (seen most dramatically with *get*).

Such observations lead to the final research question investigated within the present analysis which entails utilizing corpora for determining if semantic maps can be devised for certain verbs to aid the listener in understanding their central and extended meanings. The answer to this inquiry is 'yes', as the verbs analyzed appear in varying contexts and discourse settings (such as locative, stative, empathetic, possessive, et cetera). Such expressions of semantic extension have been seen in the SBC data for *get, hear, see,* and *feel* whereas the COCA shows examples in which *grasp* appears in more structured, scripted discourse settings. Furthermore, *grasp* is used most often when a speaker or writer is discussing understanding information as opposed to simply possessing it.

The semantic maps created for each of the four verbs seen in the SBC data are clearly visible when systematically exploring such a corpus. This is due to the availability allotted by a corpus to read one person's statements to another's to determine where a topic begins, what it means overall, which discourse cues indicate context, and what the verbs add semantically to this information. These findings demonstrate how the research questions herein have generated an exploration into the semantic expressions and interpretations of verbs as observed by the highly polysemous examples used in everyday speech. Now that these questions, findings, and their interdependent significance have been brought to light, one may consider the construal behaviours at work to aid in inferring VP semantics. Section 5.2 consults the work of other authors and specialists in this line of analysis to inform the present work of what the data suggests in this respect.

5.2 The construal behaviours we rely upon to accurately decode VP semantics

Construal has been reviewed in the present work as a process by which a listener infers meaning from what the speaker is presenting. These meaning connections are conditioned over time and exposure, and are later consulted via the inferential schemas available to the listener. Such factors have been noted throughout this analysis as being a form of semantic motivation for a listener's (or speaker's) form-meaning pairings – specifically, towards a certain verb within a certain context. One way that construal can be observed via a corpus-based approach is accomplished by looking at the speaker's statements which have included both literal and metaphoric VPs, as well as the verbs within them.

Recall the construal factors specific to verbs according to their close ties with embodied intersubjectivity (Zlatev 2017, Gibbs 2017), and studies relating to the Neural Theory of Language (NTL) (Feldman & Narayanan 2004). By analyzing how the conversations within the SBC evolve, the findings of the present study show that only 60 verb tokens could not be placed in either the literal or metaphoric category. Therefore, any ambiguous contexts and their verbs are shown in the data of this analysis to be somewhat rare when compared to the total number of tokens observed in the SBC. Moreover, the verb tokens which can be construed definitively into either the literal or metaphoric context may be due to the influences of embodiment. For instance, the listener (or reader) can construe that to *grasp* an idea or concept means to understand it more intimately than simply *getting* it. This is due to *grasp* eliciting a more intense interpretation credible to its central, physical meaning of "[taking] or [seizing] *eagerly*" (MWD; italics added).

Following this narrative, evidence of listener construal can be further supported by the corpus-based approach which grants the opportunity to follow the dialogical context in a systematic way. The speaker's comments and listener's responses provide an in-depth look into the world these individuals are creating contextually and semantically. Moreover, several authors have taken these observations in a similar stride by noting that

> Interestingly, there is quite some debate on which process(es) underlie the phenomenon of alignment. First, according to Brennan and Clark (1996), alignment can be seen as resulting from interactive grounding: conversational partners temporarily agree on the construal of the topic of discussion. They reach conceptual pacts that are not directly transferable to other conversations. For example, if speakers are discussing the latest car model that Ferrari released, they each have an enormous amount of lexical and grammatical possibilities to refer to that car (the car, the red car, the car that's red, the sports wagon, the convertible, etc.). Within a conversation, Brennan and Clark argue, *speakers reach a temporary agreement on how they label the referent* (Feyaerts, Brône, & Oben 2017: 140; italics added).

In the case of the current study, the speakers and listeners observed in the SBC have established that the *referent* (presented initially by the speaker) is in fact the scene, topic, and/or concept which creates the context. This phenomenon extends to other VPs as well, but it is curious to note that the verb may show extension not only semantically, but also experientially.

In the quote above, Feyaerts et al. (2017) describe how other researchers, such as Brennan and Clark (1996), have found that through verbs, extensive conceptual connections are

made possible. These connections, then, are distinguishable from one another, and encourage a continuation of context-based meaning when used in literal or metaphorical conditions. Feyaerts et al.'s (2017) example here demonstrates this interactional construal through the use of a noun (the car) and variations related to it. If this is the case that such multimodal interactions can show construal mechanisms through nouns, the same logic, it seems, can be applied to verbs. Recall Anderson's (1978) inferential schema observations from Chapter 2, in which he discusses how speakers and listeners develop categorical assignments for certain words and phrases (or objects, concepts, etc.) based on shared traits. This perspective holds true to the motivations and findings portrayed in this study, as verbs can be extended semantically according to the same principles expressed by Anderson's (1978) theory. Similar to Wilson and Sperber's (2006) Relevance Theory, concepts or objects that are similar to a specific verb's base schema can branch out meaningfully by context-based inferences.

Thus, construal is not only reliant upon the listener, but also upon the speaker's phrasing as it forms connections using lexical items, establishing an overall context, and having knowledge of the intended semantics to be expressed. To use Langacker's (2008) terminology, interactional factors are described more generally as "usage events" (Langacker 2008: 220). Usage events involve the speaker's 'guidance' in ways such as creating a discernable context and establishing "meaning coordination" between interlocutors (Feyaerts et al. 2017: 143). Such factors of construal guidance and inference are precisely what the current study has found and discussed at length through evidence of the SBC speech. It is in these ways that the speaker and the listener both have roles to play when creating a multifaceted array of speech acts by which to guide and construe meaning. Following this discussion, Section 5.3 below addresses the future projections relating to the present study's findings.

5.3 Future directions

Considering all that has been discussed thus far, what does it mean for verbs and context-specific VPs to create meaning vocally, when there are other ways of generating semantic connections (such as gesture, tone, facial expressions, signed languages, et cetera)? Although pursuing any promising answers at this time is beyond the scope of the current analysis, it is prudent to consider what the data presented here means for the future of linguistic evaluations of VP-specific interactions. Selecting the SBC research sample for this study has been motivated by the

diverse number of speech participants involved, as well as the recordings being collected from across the United States of America and in differing environments, the initial search results for at least four of the five verbs addressed herein being quite frequent in use, and the researcher's own observations of using *get*, *hear*, *see*, and *feel* in daily interactions. However, the motivation for selecting *grasp* is tied to curiosity, with initial expectations of finding at least a few tokens for this verb being unsupported by the data. Nevertheless, these verbs have encouraged discussions which are instrumental for highlighting which verbs are being used, how frequently, in which contexts, and just how far they are being extended semantically in the SBC sampling of American speech.

There are also social, cognitive, linguistic, pragmatic, and auditory factors to consider in addition to what has been noted thus far, certainly, but it is the goal of this Section to suggest where a researcher may go from this point onward. Considering all that has been said up to this point, there is a consistent thread of influence which has shown to be instrumental in demonstrating how we use verbs, the polysemy allotted to them through context-based use, and the information which can be inferred. Subsection 5.3.1 discusses how this vein of research may continue, knowing what has been found herein and by other works in the cognitive linguistics field, and notes that verbs and their contexts may be the key to understanding how English speakers *grasp* VP semantics, while researchers *get* the importance behind its presentation and reception.

5.3.1 Where do we go from here? Meaning beyond a single verb

As this study has progressed, several factors have become apparent, such as: Verbs and contexts go hand-in-hand, speakers and listeners experience verbs on many different levels (such as spiritual, physical, emotional, and so forth), and inferences are made as a result of more than just the verb being presented to a hearer. The results of this study have noted that context is just as vital as the verb, and while this is not an entirely new phenomenon to observe in corpus linguistics, it is curious that *grasp* created more limitations than expected. Due to the findings surrounding the numerical extensiveness of *grasp* taking place in the COCA versus its non-existence in the SBC, the present study could have benefited from removing this verb from its explorations.

Alternatively, the researcher could have applied the basic principles and approach of this study and tailored it to focus entirely on the COCA and how *grasp* is used within. From there, more work could also have been dedicated to investigating the comparative and contrastive elements which reside in the COCA concerning written versus spoken speech environments, as well as how *grasp*, alone, is extended metaphorically. Furthermore, future studies may address other languages using similar principles applied in the present study, taking strides to conduct field research with more specific sample sizes and demographics in mind, and/or relying upon corpora specific to varied forms of English (such as verbs in slang, verb polysemy in English as an L2, sociolinguistic influences of verbs in metaphor, American versus British or Canadian English verb use, and so forth).

The five verbs referenced in this study and the motivations for analyzing their root forms have been addressed at various intervals in this study. However, future directions which could be taken regarding speakers' uses of *get, grasp, hear, see,* and *feel* could certainly include inflection. The projected outcome of such an approach may reveal the speaker's intentions more clearly. Some examples of other contextually revealing elements arising from the use of inflected verb forms would entail tense, subject, experiencer, and more prominent connections to volition and related factors of agency, transitivity, and anecdotal reference points (specific to tense and person). This approach would likely encourage discussions about phrasal metaphors, specifically, and the influence of conventional VPs in relation to the verbs they use. Some examples for a future study involving conventionalized phrasal verbs could entail exploring "I *see* what you mean", "*see* what I'm saying?", and "I *saw* his point during the presentation yesterday, but…" and so forth to determine the differing frequencies of verb use in these ways.

The future prospects for the study of verbs operating in similar ways to the present work should strive to continue investigating why we say what we say and how meaning is conditioned beyond the factors of embodiment, intersubjectivity, and inferential schemas, alone. Other poignant studies regarding the influences of construal could entail tone of voice, signed language use, gestural cues indicating another 'voice' (much like the narrator's 'voice' in written text), as well as extra-linguistic indicators of meaning (such as the approach taken by Gibbs & Cameron 2008). Regardless of the angle at which future research may view the topic of context-based verb usage, it has been supported throughout this analysis that verbs are a reliable part of speech by

which to demonstrate polysemous construal, semantic mapping potential, and the symbiotic relationship verbs share with the contexts in which they are used.

Investigating more varied sources aside from those portrayed in a corpus may also be beneficial, as visual sources such as television series and news interviews are likely to provide additional narratives regarding what is taking place with verb polysemy in spoken English. Along this line of thought, Section 5.4 below serves to coalesce the findings and meaning of the present work through its concluding remarks, and seeks to inform the reader of what corpus-based VP semantics reveal about the way we think.

5.4 Conclusion: What does the semantic extension of verbs say about the way we think?

Gentner and Bowdle (2001) assert that

> Metaphors establish mappings between concepts from disparate domains of knowledge. For example, in the metaphor 'The mind is a computer,' an abstract entity is described in terms of a complex electronic device. It is widely believed that metaphors are a major source of conceptual change. In the field of cognitive psychology, the computer metaphor resulted in a new way of conceptualizing the mind and has inspired researchers to postulate a vast array of mental constructs (Gentner & Bowdle 2001: 223).

In a similar vein of thought, Lakoff and Johnson (1980b) note that there are several 'types' of metaphors appearing in discourse which reflect the way we think. These types are described as expressing a physical element or object which is paired with a much more intangible concept, idea, or feeling (emotion) (Lakoff & Johnson 1980b: 3-6).

One form of a conceptualization-reflecting metaphor includes the notion that ideas are thought of by English speakers in terms of containers or buildings (Lakoff & Johnson 1980b: 14, 25, 29). Other examples include orientational metaphors being conceptualized as MORE IS UP and LESS IS DOWN, such as "The number of books printed each year keeps going *up*" and "If you're too hot, turn the heat *down*" (Lakoff & Johnson 1980b: 15-16; italics in original). Similar phrases specific to ideas include *this idea supports my claims* (IDEAS ARE BUILDINGS), and *this idea holds many implications* (IDEAS ARE CONTAINERS). Ontological metaphors are described by Lakoff and Johnson (1980b) as "[serving] various purposes" including referring, quantifying, identifying aspects and causes, as well as setting goals and motivating actions (Lakoff & Johnson 1980b: 26-28).

Some examples are "The *middle class* is a *powerful silent force* in *American politics*" (referential), "It will take *a lot of patience* to finish this book" (quantifying), "I can't keep up with the *pace of modern life*" (identifying aspects), "The *pressure of his responsibilities* caused his breakdown" (identifying causes), and "He went to New York to *seek fame and fortune*" (setting goals and motivating actions) (Lakoff & Johnson 1980b: 26-27; italics in original). Each of Lakoff and Johnson's (1980b) examples above illustrate how metaphors permeate common utterances, which elements appear within their VPs most often, and the situational image schemas relating to them. As these metaphors appear in varying types as per their categorical relations to the physical world (buildings, containers, paths, situational metaphors, orientation metaphors, animals, tools, and so forth), one thing is clear: These types are only a part of inferential processing. Another factor of inferential reasoning involves construal of the verbs, themselves, which varies due to their polysemy, prototypical uses, and their literal base (or central) meanings.

Correspondingly, Williams (1992: 207; italics added) proposes that "If it is assumed that the mental representation of polysemous words is organized according to meaning chains, the only factor determining the amount of *priming* between related meanings will be the extent to which they overlap". Essentially, these "meaning chains" can be understood as being the construal of the verbs which have been presented to the hearer, while extensions towards additional verb meanings appear to gain their semantics from the environment within which they are placed (i.e. the context of the VP) (Williams 1992: 207).

For additional clarity, what is meant by a "prototypical" use of a verb? Rosch's (1983) description of a prototypical verb according to the more general psychological view suggests that "The verbs to classify, to categorize, and to conceptualize also have *a shared referent*, namely, a mental process by which ideas, events, and objects are divided[…]" (Rosch 1983: 245; italics added). Therefore, prototypical lexical items generally follow a similar process of implying points of reference, or more specifically, a central meaning in a language. For instance, because the central meaning of *get* is a physically dependent, outwardly enacted term, this verb's semantics can only branch out into the metaphorical context by being used in forms that share the same conceptual framework, such as a situational reference point of *getting* an idea in the same (conceptual) way that one can *get* (obtain, have, hold, etc.) a cup of coffee.

Such concepts encourage a series of polysemous interpretations which demonstrate how a verb's semantics become extended into the metaphoric context – or even the literal context, just with a different meaning than the prototypical one. Another, more cognitive linguistic oriented approach provided by Givón (1986: 78) asserts that Prototype Theory, specifically, involves "a non-extremist compromise solution to the representation of notional/functional/cognitive space". This approach "allows for a non-discrete continuum space within as well as between categories.[…]it concedes that natural cognitive and linguistic categories are not always – and perhaps are seldom – defined in terms of a single or a few, criterial[…]properties" (Givón 1986: 79).

Therefore, prototypical uses of verbs are not only identified according to their base semantics. Rather, prototypical language use is better understood as the 'continuum' of categorical meaning from one representational space to another in the cognitive framework (see also Bowdle & Gentner 1999: 90). For the purposes of the present study, the categorical factors allowing for the extension of verb semantics into metaphoric polysemy are grounded in the continuation of central meanings into the extended. These semantics are expanded upon into the metaphorical context due to the implications a prototypical meaning shares with an abstract concept of the same quality.

Moreover, consider the work of Csábi (2002: 249), who discusses how polysemy is construed according to the dynamic of cognition and language whereby

> Motivation plays an important role[…]. […]polysemous words and most idioms are motivated since their meanings make use of and are consistent with certain already existing patterns. Naturally, not all word meanings and idioms are conceptually motivated, but often we can find a link between form and meaning (Csábi 2002: 249).

Csábi's (2002) observation presents an opportunity for recognizing how the polysemy of verbs is construed: Mainly, there appears to be a strong link between contextual motivations behind construal when it is applied to verbs and, just like idioms, metaphors provide the final piece to the puzzle of specified verb meaning inference. For the listener's automatic cognition to decide which polysemous interpretation applies to the verb in a VP then depends greatly upon two things: i) identifying the context (as determined by the listener's past experience with verb-to-context patterning and the literal versus metaphorical parts of speech being conveyed), and ii) by

noting how the metaphorical context, specifically, triggers an array of semantically extended outcomes motivated by categorical similarities shared with the literal (central) meaning (see Lakoff 1987: 9). This notion supports what has been seen regarding the differences between polysemous interpretations applicable to the literal versus metaphorical contexts in the SBC dialogue where, regardless of which of the four verbs are being analyzed within, there are broad semantic networks which can be drawn for the metaphorical context.

In conclusion, the present work has sought to gauge the possibility of creating semantic maps according to verb use in the SBC, what contextual cues exist in English VPs to guide the semantics of verbs, and how the corpus-based approach allows for a clear picture to emerge regarding semantic interactions among interlocutors. In an effort to explore these questions and what they mean regarding verb use in English, each chapter leading up to this point has noted the origins and examples of metaphoric versus literal language on the basis of cognitive organization and real-world language use. Thus, the methodological proceedings of the current analysis have provided a detailed investigation into the use of verbs regarding their relevance to semantic mapping potential, meaning connectivity, and the observance of semantic extension in organic speech environments. Finally, this analysis has supported the notion that verbs are, indeed, a truly revealing element of meaning adaptation in English, as verbs provide an ideal platform by which to observe the individual and contextual semantics interlocutors present and construe. This study has shown most prominently that conceptualization paired with the polysemous potential of verbs illustrates that what we say (and the context within which it is said) reveals how we *grasp* what others (and ourselves) are thinking; literally and metaphorically.

References:

Aijmer, Karin., & Christoph Rühlemann (Eds.). 2015. *Corpus pragmatics: A handbook*. Cambridge, England: Cambridge University Press.

Anderson, Richard C. 1978. Schema-directed processes in language comprehension. In A. Lesgold, J. Pelligreno, S. Fokkema, and R. Glaser (Eds.), *Cognitive psychology and instruction*. 67-82. New York, USA: Springer. Retrieved from https://www.ideals.illinois.edu/bitstream/handle/2142/17946/ctrstreadtechrepv01977i00050_opt.pdf?sequence=1&isAllowed=y.

Bartlett, Frederic Charles. 1932. *Remembering: A study in experimental and social psychology*. Cambridge, England: Cambridge University Press.

Bergen, B. 2005. Mental simulation in literal and figurative language understanding. In *The literal and nonliteral in language and thought* (1st edition). 255-280. Bern, Switzerland: Peter Lang Publishing.

Blasko, Dawn G. & Deborah S. Briihl. 1997. Reading and recall of metaphorical sentences: Effects of familiarity and context. In *Metaphor and Symbol 12*(4). 261-285. England, UK: Taylor and Francis (Routledge).

Boogart, Ronny & Alex Reunecker. 2017. Intersubjectivity and grammar. In Barbara Dancygier (Ed.), *The Cambridge Handbook of Cognitive Linguistics*. 188-206. Cambridge: Cambridge University Press.

Bowdle, Brian F., & Dedre Gentner. 1999. Metaphor comprehension: From comparison to categorization. In *Proceedings of the twenty-first annual conference of the cognitive science society, 21*. 90-95. New Jersey, USA: Lawrence Erlbaum Associates.

Bowdle, Brian F., & Dedre Gentner. 2005. The career of metaphor. In *Psychological Review, 112*(1). 193–216. Washington, USA: American Psychological Association.

Brennan, Susan E., & Herbert H. Clark. 1996. Conceptual pacts and lexical choice in conversation. In *Journal of Experimental Psychology: Learning, Memory, and Cognition, 22*(6). 1482–1493. Washington, USA: American Psychological Association.

Cameron, Lynne. 2007. Confrontation or complementarity?: Metaphor in language use and cognitive metaphor theory. In *Annual Review of Cognitive Linguistics 5*(1). 107-135. Amsterdam, Netherlands: John Benjamins Publishing Company.

Carston, Robyn. 2002. Linguistic meaning, communicated meaning and cognitive pragmatics. In *Mind & Language, 17*(1-2). 127-148. New Jersey, USA: Wiley-Blackwell Publishing.

Casasanto, Daniel. 2009. When is a linguistic metaphor a conceptual metaphor? In *New directions in cognitive linguistics, 24*. 127-145. Amsterdam, Netherlands: John Benjamins Publishing.

Chilton, Paul Anthony. 2009. GET and the GRASP schema: A new approach to conceptual modelling in image schema semantics. In *New directions in cognitive linguistics, 24*. 331-370. Amsterdam, Netherlands: John Benjamins Publishing.

Croft, William. 2001. *Radical construction grammar: Syntactic theory in typological perspective*. Oxford: Oxford University Press.

Csábi, Szilvia. 2002. Polysemous words, idioms and conceptual metaphors: Cognitive linguistics and lexicography. In *Proceedings of the tenth Euralex international congress, 1*. 249-254. Denmark: Center for Sprogteknologi (Center for Language Technology).

Davies, Mark. 2008. *The Corpus of Contemporary American English (COCA): 560 million words, 1990-present*. Accessed from https://corpus.byu.edu/coca/ on December 8, 2019

Du Bois, John W., Wallace L. Chafe, Charles Meyer, Sandra A. Thompson, Robert Englebretson, & Nii Martey. 2000-2005. *Santa Barbara corpus of spoken American English, Parts 1-4*. Philadelphia: Linguistic Data Consortium.

Fauconnier, G. & M. Turner. 1994. *Mental spaces: Conceptual integration networks.* In Dirk Geeraerts, René Dirven, John R. Taylor, (Eds.), Ronald W. Langacker (Hon. Ed.). *Cognitive Linguistics: Basic readings.* 303-371. New York, USA: Mouton de Gruyter.

Feldman, Jerome & Shrikanth Narayanan. 2004. Embodied meaning in a neural theory of langauge. In *Brain and Language, 89*(2). 385-392. Amsterdam, Netherlands: Elsevier Publishing.

Fellbaum, Christiane. 1990. English verbs as a semantic net. In *International Journal of Lexicography, 3*(4). 278-301. Oxford, England: Oxford University Press.

Feyaerts, Kurt, Geert Brône, & Burt Oben. 2017. Multimodality in interaction. In Barbara Dancygier (Ed.), *The Cambridge Handbook of Cognitive Linguistics*. 135-156. Cambridge, England: Cambridge University Press.

Fillmore, Charles J. 1976. Frame semantics and the nature of language. In *Annals of the New York Academy of Sciences: Conference on the origin and development of language and speech*, *280*(1). 20-32. New Jersey, USA: John Wiley and Sons.

Fischer, Kerstin. 2017. Cognitive linguistics and pragmatics. In Barbara Dancygier (Ed.), *The Cambridge Handbook of Cognitive Linguistics*. 330-346. Cambridge, England: Cambridge University Press.

Gentner, Dedre & Bowdle, Brian F. 2001. Convention, form, and figurative language processing. In *Metaphor and Symbol*, *16*(3-4). 223-247. New Jersey, USA: Lawrence Erlbaum Associates.

Gibbs, Raymond W. 1998. The fight over metaphor in thought and language. In A.N. Katz, C. Cacciari, Raymond W. Gibbs, & M. Turner (Eds.), *Figurative language and Thought*. 88-118. Oxford, England: Oxford University Press.

Gibbs, Raymond W., & Lynne Cameron. 2008. The social-cognitive dynamics of metaphor performance. In *Cognitive Systems Research 9*(1-2). 64-75. Amsterdam, Netherlands: Elsevier Publishing.

Gibbs, Raymond W. 2017. Embodiment. In Barbara Dancygier (Ed.), *The Cambridge Handbook of Cognitive Linguistics*. 449-462. Cambridge: Cambridge University Press.

Givón, T. 1986. Prototypes: Between Plato and Wittgenstein. In Colette G. Craig (Ed.), *Noun classes and categorization.* 77-102. Amsterdam, Netherlands: John Benjamins Publishing.

Goldberg, Adele. E. 1995. *Constructions: A construction grammar approach to argument structure*. Chicago, USA: University of Chicago Press.

Gronemeyer, Claire. 1999. On deriving complex polysemy: the grammaticalization of *get*. In *English Language & Linguistics*, *3*(1). 1-39. Cambridge, England: Cambridge University Press.

Hoffmann, Thomas. 2017. From constructions to construction grammars. In Barbara Dancygier (Ed.), *The Cambridge Handbook of Cognitive Linguistics*. 284-309. Cambridge: Cambridge University Press.

Holyoak, K. J., & D. Stamenković. 2018. Metaphor comprehension: A critical review of theories and evidence. In *Psychological bulletin 144*(6). 641-671. Washington, USA: American Psychological Association.

Johnson, Mark. 1987. *The body in the mind: The bodily basis of reason and imagination*. Chicago, USA: University of Chicago Press.

Klems, Brian A. 2012. *Sorry I Had to Rig Your GPS, But This Is Urgent.* Writersdigest.com. Retrieved from https://www.writersdigest.com/prompts/sorry-i-had-to-rig-your-gps-but-this-is-urgent.

Labov, William. 1978. *Field methods used by the research project on Linguistic change and variation.* Philadelphia, USA: University of Pennsylvania Press.

Langacker, Ronald. W. 1987. Nouns and verbs. In *Language (63)*1. 53-94. New York, USA: Linguistic Society of America.

Langacker, Ronald. W. 2008. *Cognitive grammar: a basic introduction*. New York, USA: Oxford University Press.

Lakoff, George. 1987. *Women, fire, and dangerous things: What categories reveal about the mind.* Chicago, USA: University of Chicago Press. Retrieved from https://pdfs.semanticscholar.org/9c85/d2dd7e6d924a1078fb93cac9baaa8a850d3e.pdf

Lakoff, George & Mark Johnson. 1980a. The metaphorical structure of the human conceptual system. In *Cognitive science 4*(2). 195-208. New Jersey, USA: John Wiley and Sons.

Lakoff, George & Mark Johnson. 1980b. *Metaphors we live by*. Chicago, USA: University of Chicago press.

Lakoff, George. 1988. Cognitive semantics. In Umberto Eco, Marco Santambrogio, & Patrizia Violi (Eds.), *Meaning and mental representations.* 119-154. Indiana, USA: Indiana University Press.

Linell, Per. 2009. *Rethinking language, mind, and world dialogically: Interactional and contextual theories of human sense-making*. North Carolina, USA: Information Age Publishing.

Lyons, John. 1977. *Semantics: Volume 1* (Vol. 1). Cambridge, UK: Cambridge University Press.

McCormick, Kathy (Writer), & Sgriccia, Philip (Director). 1994, November 20. A Bolt from the Blue (Season 2, Episode 8) [TV series episode]. In Robert Singer (Executive Producer), *Lois & Clark: The New Adventures of Superman.* United States of America: American Broadcasting Company.

Morgenstern, Madeleine. 2012. *Allen West: Ron Paul 'Not the Kind of Guy You Need to Be Sitting at 1600 Pennsylvania Avenue'*. Theblaze.com. Retrieved from https://www.theblaze.com/news/2011/08/14/allen-west-ron-paul-not-the-kind-of-guy-you-need-to-be-sitting-at-1600-pennsylvania-ave.

Newmeyer, Frederick, J. 1994. A Note on Chomsky on Form and Function. In *Journal of Linguistics 30*(1). 245-251. Cambridge, England: Cambridge University Press. Retrieved from www.jstor.org/stable/4176262.

Nye, Bill & Ken Ham. 2014. *Uncensored Science: Bill Nye Debates Ken Ham*. Retrieved from https://www.english-corpora.org/coca/.

Oakley, Todd & Esther Pascual. 2017. Conceptual blending theory. In Barbara Dancygier (Ed.), *The Cambridge Handbook of Cognitive Linguistics*. 423-448. Cambridge: Cambridge University Press.

Piaget, Jean. 1926. *The language and thought of the child.* New York, USA: Harcourt, Brace & Co.

Rosch, Eleanor. 1983. Prototype classification and logical classification: The two systems. In Ellin Kofsky Scholnick (Ed.), *New trends in conceptual representation: Challenges to Piaget's theory?* 73-86. United Kingdom: Psychology Press.

Sanford, Daniel. 2008. Discourse and metaphor: A corpus-driven inquiry. In *Corpus Linguistics and Linguistic Theory*, *4*(2). 209-234. Berlin, Germany: Walter De Gruyter.

Semino, Elena. 2017. Corpus linguistics and metaphor. In Barbara Dancygier (Ed.), *The Cambridge Handbook of Cognitive Linguistics*. 463-476. Cambridge: Cambridge University Press.

Shutova, E., L. Sun & A. Korhonen. 2010. Metaphor identification using verb and noun clustering. In *Proceedings of the 23rd International Conference on Computational Linguistics.* 1002-1010. Pennsylvania, USA: Association for Computational Linguistics. Retrieved from https://www.aclweb.org/anthology/C10-1113.pdf.

Steen, Gerard. J. 2002. Identifying metaphor in language: A cognitive approach. In *Style*, *36*(3). 386-406. Pennsylvania, USA: Penn State University Press.

Steen, Gerard J. Aletta G. Dorst, J. Berenike Herrmann, Anna A. Kaal, Tina Krennmayr, & Trijntje Pasma. 2010. In Gerard J. Steen (Ed.), *Method for linguistic metaphor identification: From mip to mipvu*. Amsterdam, Netherlands: John Benjamins Publishing.

Stern, J. 2006. Metaphor, literal, literalism. In *Mind & Language 21*(3). 243-279. New Jersey, USA: Blackwell Publishing Ltd. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.124.9742&rep=rep1&type=pdf

Sullivan, Karen. 2007. *Grammar in metaphor: A construction grammar account of metaphoric language* (Doctoral dissertation, University of California, Berkeley, United States of America). Retrieved from https://escholarship.org/content/qt9d9222f9/qt9d9222f9.pdf.

Sullivan, Karen. 2017. Conceptual metaphor. In Barbara Dancygier (Ed.), *The Cambridge Handbook of Cognitive Linguistics*. 385-406. Cambridge: Cambridge University Press.

Thibodeau, H., R. K. Hendricks, & L. Boroditsky. 2017. How linguistic metaphor scaffolds reasoning. In *Trends in cognitive sciences 21*(11). 852-863. Cambridge, MA, USA: Cell Press. Retrieved from https://nmckenna.me/papers/metaphor-scaffolding.pdf.

Williams, John N. 1992. Processing polysemous words in context: Evidence for interrelated meanings. In *Journal of Psycholinguistic Research 21*(3). 193-218. New York, USA: Springer.

Wilson, Deirdre & Dan Sperber. 2006. Relevance theory. In Laurence R. Horn & Gregory Ward (Eds.), *The Handbook of Pragmatics*. 607-632. New Jersey, USA: Blackwell Publishing.

Wilson, John. 1987. The sociolinguistic paradox: Data as a methodological product. In *Language & Communication 7*(2). 161-177. Amsterdam, Netherlands: Elsevier.

Zlatev, Jordan. 2017. Embodied intersubjectivity. In Barbara Dancygier (Ed.), *The Cambridge Handbook of Cognitive Linguistics*. 172-187. Cambridge: Cambridge University Press.