

UN/QUALIFIED DECLARATIVES

BY PETER VAN ELSWYK

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ABSTRACT OF THE DISSERTATION

Un/qualified declaratives

by Peter van Elswyk

Dissertation Director: Jeffrey King and Ernest Lepore

Declarative sentences in English are either unqualified or qualified with an epistemic expression like a parenthetical verb. In this dissertation, I defend PARENTHETICALISM, the view that most apparently unqualified declaratives in English covertly contain the verb *know* with a first-person subject in parenthetical position. Paired with a multidimensional semantics for parenthetical verbs, parentheticalism predicts that the use of an apparently unqualified declarative represents the speaker as knowing the at-issue proposition expressed by the declarative in the context. Since the representation of speaker knowledge is what the speech act of assertion is otherwise needed to explain, parentheticalism—by better explaining such knowledge representation—has the consequence that assertion is unnecessary for explaining what the use of a declarative typically does in a context.

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I arrived at Rutgers thinking of myself as a metaphysician. Then I took a course with Jeff King on context-sensitivity and I was all-in for the philosophy of language. I have been fortunate that Rutgers is an unparalleled place to study language. Courses with Jeff King, Andy Egan, Elisabeth Camp, Ernie Lepore, and Thony Gillies were a treat. Simon Goldstein, Una Stojnić, Nico Kirk-Giannini, Alex Anthony, Sam Carter, Carolina Flores, Verónica Gómez, Kelsey Laity-D'Agostino, and Ricardo Mena were fellow travelers from whom I learned much.

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early thinking on qualified declaratives there.

The dissertation topic I initially proposed in the spring of 2016 was about propositional anaphora. I owe thanks to Sarah Murray and a talk she gave at Erniefest for sparking my interest in that topic. Though the first chapter of that proposal became my 2018, the dissertation topic slowly drifted to only be about assertion. That drift was encouraged along by my committee and I am thankful for that encouragement. Finally, the dissertation took an eliminativist perspective on assertion after conversations with Herman Cappelen in the Fall of 2017. I am indebted to Herman for inviting me to workshop in Oslo and for his support.

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Dedication

To Kat, Chelsea, and Pim

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Chapter 1

Introduction

The boundary between semantics and pragmatics matters as a division of explanatory labor. Where the purview of one ends and the other begins, differences in how linguistic phenomena are explained begin and end. Though often subtle and *recherché* to the uninitiated passerby, these differences need to be considered to ensure that phenomena are not merely explained but given the right kind of explanation. This dissertation concerns what kind of explanation best accounts for what speakers do by using a declarative sentence within a context.

A question about what speakers do is a question about action. There is no way around that. But when we add the condition *by using a declarative sentence in a context* our question also becomes about what a speaker is enabled to do by using a declarative. Inquiry must give equal attention to the particular means through which the act is performed. As a result, the division of explanatory labor is hazy at best. Should we explain what a speaker does by using a declarative primarily with a theory of action or with a theory of declaratives?

A theory of declaratives offers a semantic explanation rooted in the meaning of a declarative or one of its constituents in a context. In the present case, a theory of action offers an account of the act-type of assertion, an act-type intimately tied to the declarative sentence. Both kinds of theories proffer different explanations. A semantic explanation will appeal mostly to facts about meaning. What a speaker does will be attributed to what a declarative enables them to do through its meaning in a context. In contrast, an act-based explanation will appeal mostly to an act-type and what distinguishes it (*e.g.* norms, effects, speaker intentions, commitments). What a speaker does will have less to do with their using a declarative and more to do with the act-type a

declarative's use tokened in a context.

There are, of course, many actions that the use of a declarative can facilitate. They can be used loudly to scare colleagues in the elevator, they can be used to share information about the weather, they can be used to publicize desires or intentions. Davidson (1979, 1984) took the plurality of actions enabled by a declarative as a significant problem for any attempt to explain what declaratives do semantically as opposed to with a theory of assertion. But it is important to distinguish what a speaker's use of a declarative in a context typically does from the further purposes that typical doing helps to achieve. At a certain level of abstraction, every use of a declarative in a context equips speakers to perform the same action regardless of their ulterior goal (Kölbel, 2011). To borrow a distinction introduced by Dummett (1996) in reply to Davidson, we should not confuse what a declarative does as a tactical tool from what a declarative does as part of a broader strategy.

To simplify, I will use THE EXPLANANDUM_d to name what a speaker typically does by using a declarative sentence in a context. In this introduction, I summarize how tradition divides explanatory labor with respect to the explanandum_d and say a little bit about why (§1.1). Then I sketch how my account of the explanandum_d defended in this dissertation departs from tradition to offer a semantic explanation that dispenses with assertion altogether (§1.2). I end with a brief discussion of this dissertation's limits (§1.3).

1.1 Traditional division

The traditional division of labor leaves it mostly to a theory of assertion to account for the explanandum_d . Frege (1879, 1892) is the one to mostly blame for this boundary. He repeatedly distinguished between the CONTENT of a sentence and the FORCE with which that content is presented. When it comes to assertion, the distinction is regimented with the introduction of the judgement stroke \vdash that combines with a sentence predicate A as $\vdash A$ to designate that the content of A is expressed with judgement as an assertion. An explanation of judgment expression—what assertoric force

amounts to—comes from a theory of action. As Hanks (2007, 141-142) summarizes Frege's influence,

Frege's distinction is also at the core of current thinking about semantics. The prevailing view is... a two-part theory, one part dealing with the contents of sentences and the other with the forces with which those sentences are used in speech acts. Dummett says that "[t]he theory of sense and reference is then to be supplemented by an account of the various forms of linguistic force that may be attached to a sentence: the theory of force thus supplies an account of the various uses that are actually made of sentences in actual speech" (1973, 416). The content-force distinction also occupies a central place in current speech-act theory. It is codified in Searle's schema " $F(p)$ " where " F " stands for force and " p " for propositional content (1969; 1979). The propositional contents of speech acts are supposed to be bare, forceless representations that are put forward in different ways in different speech acts.

Frege's influence can also be seen in the growing epistemological literature on the explanandum_d. Williamson (2000), for example, inaugurated a tradition of positing an epistemic norm that governs the assertoric use of a declarative sentence in a context. An attitude like belief is still expressed by the use of a declarative within this tradition, but that attitude's expression is a side effect of the epistemic norm requiring a speaker to occupy a particular epistemic position.

As I see it, two considerations solidified the force/content distinction with respect to theorizing about the explanandum_d. The first reason is given by Frege (1879, 1892). A declarative sentence can be syntactically independent as a standalone sentence or dependent in a variety of configurations. In each configuration, the thought can be the same. But a declarative does not express judgment or present the thought as true in all of these configurations (*e.g.* conditional antecedent, disjunction). So any semantic attempt to explain judgment expression will mispredict for dependent declaratives. An act-based explanation is better suited to account for why judgment expression is an effect of an independent declarative's use.

The second reason concerns how the meaning of a declarative can be understood. Frege kicked off a tradition that runs through Montague (1974) into Heim and Kratzer (1998) where the meaning of a sentence in a context is detailed in terms of its truth-conditions (Harris, 2017). Such a tradition leaves no room for a semantic account of the explanandum_d. The truth-conditional meaning of a declarative like *Whiz DJ'ed*

does not in any way involve the speaker's attitude. Judgment expression is truth-conditionally independent of the sentence's meaning. The thought that Whiz DJ'ed can be true even if the speaker does not judge as much and the speaker can judge as much when the thought is false. Since judgment expression cannot find a home in a declarative's truth-conditions, an act-based explanation of judgment expression is what remains.

1.2 My proposal

Over the next three chapters, I present a new semantic account of the explanandum_d. I begin in §2 by clarifying what the explanandum_d consists in. A bewildering variety of theories of assertion have been proposed in the last 75 years or so. Beyond theoretical differences, these theories are put to work explaining different facts related to what a speaker typically does by using a declarative in a context. With such variation, it is easy to lose sight of what it is all about. I argue for simplification in §2. What is required to account for the explanandum_d is an account of how the use of a declarative represents the speaker as knowing the proposition expressed by that declarative in the context. Nothing more, nothing less.

In §3, I present my semantic account. It is called PARENTHETICALISM because it explains knowledge representation as the semantic contribution of a covert parenthetical verb in the declarative's logical form. In other words, the use of a declarative in a context represents the speaker as knowing the proposition expressed by that declarative because the declarative contains a covert instance of *I know* in a parenthetical position. My account is inspired by reflections on natural languages other than English that contain grammatical elements in declaratives dedicated to specifying the speaker's epistemic position and how parenthetical verbs equip English declaratives to achieve a similar discourse function. Parentheticalism earns its keep by accounting for the explanandum_d while navigating through the traditional considerations that militate against a semantic explanation.

To preview coming attractions, parentheticalism avoids the problem posed by dependent declaratives by being antecedently limited to the syntactic configurations in which parentheticals can appear. Since parentheticals cannot appear in configurations like disjunctions or the antecedents of conditionals, parentheticalism does not predict that such declaratives represent the speaker as knowing. Parentheticalism circumvents the limitation of truth-conditions by being implemented in a multidimensional semantics wherein sentences have a level of content separable from truth-conditional content. That extra meaning dimension is where a parenthetical verb makes its semantic contribution whether overt or covert.

An extra argument for parentheticalism is given in §4. Whether semantic or act-based, an account of the explanandum_d has to specify when and why a declarative represents the speaker as knowing the proposition expressed in a context. For a theory of assertion, specifying when and why is equivalent to detailing the interface between meaning and force. Specifying as much for parentheticalism is a matter of giving the correct compositional semantics. I defend that parentheticalism better explains the interface than a theory of assertion can.

The philosophical consequence of parentheticalism is that, as Cappelen (2011, 21) puts it, “‘assertion’... is not a category we need in order to explain any significant component of our linguistic practice.” Since a theory of assertion is only needed to account for the explanandum_d (§2) and parentheticalism does a better job of that (§3-§4), the division of labor is such that the act-type of assertion can be dispensed with. Following Frege in applying the force/content distinction to what declaratives do is therefore a mistake. Though the distinction is useful in delineating the division of labor elsewhere, it is not useful here.

I conclude in §5 with a brief discussion of two questions raised by my proposal. I discuss whether the the multidimensional semantics for parentheticals from §3 can be extended to other epistemic expressions and whether other speech acts can be similarly dispensed.

1.3 Limits of scope

The dissertation has two noteworthy limitations on the scope of its conclusions. Though I make a small exception in §3.4.4 to show that parentheticalism applies to Italian and presumably German as well, the dissertation is otherwise only concerned with what a speaker does by using a declarative in English. So the dissertation does not show that assertion is unnecessary for explaining linguistic practice anywhere. Since assertion is an act-type that is hypothetically tokenable in any natural language, showing the explanatory idleness of assertion in English does not show its idleness elsewhere. To account for the explanandum_d in natural languages unlike English, the act-type of assertion might still be required.¹

The second limitation is temporal. I do not defend that parentheticalism is explanatory for what speakers have always done by using declaratives in English. I only defend that it is presently explanatory. Mentioning such a limitation might seem like splitting hairs. But the boundary between semantics and pragmatics changes over time. One of the ways it changes is through PRAGMATICALIZATION (Traugott, 1995; Diewald, 2011; Davis and Gutzmann, 2015). Pragmaticalization is a diachronic process through which non-truth-conditional expressions develop. Such development might take a variety of pathways. One pathway is from conversational to conventional implicatures. As Grice (1989, 39) originally suggested, “it may not be impossible for what starts life, so to speak, as a conversational implicature to become conventionalized.” Another plausible pathway is from an act-type intimately associated with a sentence to non-truth-conditional content had by that sentence. In other words, what might start life as conditions on action might gradually become non-truth-conditional meaning. So nothing I say below rules out the possibility that parentheticalism is the finished

¹Languages with grammatical evidentials are an interesting case. Though I discuss them in §3 to offer new perspective on English, I do not consider whether the act-type of assertion is needed to explain linguistic practice in such languages. Based on differences between English and these languages, Velleman (2014) argues that assertion is not tokenable in such languages. In contrast, others like Faller (2002) and Chung (2010) directly rely on assertion to explain the semantics and pragmatics evidentiality. But there are other explanations that are more semantic and less act-based. For example, see McCready (2010) and Murray (2017) for views to which I am sympathetic. These other explanations might facilitate assertion’s elimination.

product of a pragmaticalization process that started off with the speech act of assertion. What parentheticalism rules out is that assertion is still necessary to account for the explanandum_d.

Chapter 2

Declarative data

2.1 Introduction

A theory of assertion explains what a speaker typically does by using a declarative sentence in a context.¹ This chapter surveys old and new data concerning what a speaker does and defends that the following hypothesis is necessary and almost sufficient for explaining all of the data.

KNOWLEDGE REPRESENTATION HYPOTHESIS (KRH)

For a speaker *S* and declarative sentence *d* expressing a proposition *p* in a context *c*, *S*'s use of *d* in *c* represents *S* as knowing *p* in *c*.

Represents in KRH is a placeholder term. Words like *expresses*, *indicates*, *manifests*, *implies*, or *conveys* work just as well. It stands-in for a more nuanced account of how the use of a declarative in a context is associated with the expectation of a hypothetical hearer—formed after the declarative's use—that the speaker knows the proposition expressed. However the details of knowledge representation shake out, KRH enables the data to be explained by appealing to what is public to conversational participants about the speaker's epistemic position.

But what data? Let's reserve DECLARATIVE DATA for data which a theory of assertion should purportedly explain. Various data have been identified over the years. On my classification, declarative data sorts into three kinds: conversational, linguistic, and normative. Conversational data consists of generalizations surrounding the use

¹Some take a wide view on how assertion is performed. Among others, Stainton (1995) holds that subsentential expressions can token assertion and Schiffer (1972) maintains that gestures can. But I take a narrow view for two reasons. First, the use of a declarative is the canonical means of asserting. Second, whether anything else can is partially owed to it being declarative-like. So focusing on declaratives is more instructive.

of a declarative as a turn taken in a conversation. Linguistic data consists of generalizations about the felicity or meaning of a declarative in a context. Finally, normative data consists of generalizations about the speaker incurring responsibility or commitment by using a declarative in a context. Though these differences in data have pulled theorizing about assertion in different directions, I defend that KRH is almost enough to explain all of the data from each variety.

That KRH is necessary and almost sufficient to explaining all of the declarative data has consequences for theory choice. In particular, it facilitates conditional answers to two questions.

NECESSITY QUESTION (NQ)

Is a theory of assertion necessary to explain the data?

KIND QUESTION (KQ)

What kind of theory of assertion is required to explain the data?

With KRH, the answer given to NQ is that a theory of assertion is necessary if and only if KRH has to be explained as a component of assertoric force. If equal or better explanations of KRH are available, then we can do without assertion. The related answer given to KQ is that if a theory of assertion is necessary, then the theory is explanatory if and only if it accommodates KRH. Theories that do not accommodate KRH fail to achieve full explanatory coverage of the data.

My conditional answers to NQ and KQ carry a number of consequences. The first consequence is that eliminativism is significantly undermotivated (Cappelen, 2011). Absent an alternative explanation of KRH, theories of assertion that accommodate KRH are preferable. The second consequence is a pessimistic one concerning theory choice. I shortly argue that most extant theories of assertion can accommodate KRH. That yields the consequence that theory choice is massively underdetermined by the assertoric data. Reasons still exist for choosing a theory, but none of those reasons concern whether a theory is sufficiently explanatory.

I am not the first to draw a pessimistic conclusion about the current state of theorizing about assertion. Rescorla (2009) and Pagin (2016) have noted that conversational data underdetermines theory choice among a number of theories. Accordingly,

the present paper can be understood as generalizing that observation in two distinct ways. It generalizes by arguing that linguistic and normative data also underdetermine theory choice and it generalizes by suggesting that underdetermination by data extends to a much wider variety of theories.

I begin in §2.2 by cataloging which theories of assertion can accommodate KRH in one way or another. Then §2.3 walks through old and new conversational, linguistic, and normative data to show the explanatory prowess of KRH. Putative counterexamples to KRH are handled in §2.4. My diagnosis is that they merely show that KRH is insufficient for explaining normative data in deviant cases. That is where the *almost sufficient* proviso. Finally, §2.5 returns to NQ and KQ to elaborate how my answers are justified.

2.2 Accommodating KRH

Let's begin with a distinction from Austin (1962). The use of a sentence to convey content in a context constitutes a LOCUTIONARY ACT. Whether an ILLOCUTIONARY ACT is performed as well depends on whether the speaker's act has properties above and beyond the properties it already has because a locutionary act was performed. Assertion is a speech act allegedly performed by using a declarative sentence to express a proposition in a context. So whether there is a speech act of assertion depends on there being properties of a speaker's action that are not merely had because a speaker used a declarative in a context.

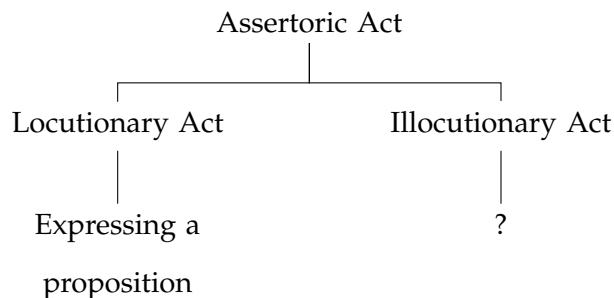


Figure 2.1: Assertion's anatomy

Theories of assertion differ over what these extra properties are. In other words, they differ on what distinguishes assertions from mere uses of declaratives by a speaker.

That theoretical difference can be represented in how they fill in the blank in the schema ‘to assert is to _____’ by identifying the illocutionary properties that occupy the right node in Figure 2.1.

I follow Benton and van Elswyk (2018) and divide theories into those that are POSITIONAL or NON-POSITIONAL. Positional theories fill in the blank by having the speaker represent her epistemic position towards the proposition expressed at the level of the illocutionary act. Importantly, representation does not mandate that the speaker actually occupies that position. PROPER and IMPROPER ASSERTION need to be distinguished. With a positional theory, an assertion is usually regarded as proper only if the speaker occupies the position represented. Otherwise, the assertion is improper. Positional theories differ along at least three dimensions. First, they can vary in how a position is represented with the use of a declarative in a context. Second, they can vary in what position or range of positions can be represented in a context. Third, they can vary in what kind of impropriety occurs if the speaker does not occupy the position represented in the context.

In contrast, non-positional theories do not fill in the blank with reference to the speaker’s epistemic position. They cite other features of the act or speaker to characterize what happens above and beyond the locutionary act. Many non-positional theories fill in the blank by specifying a change in the speaker’s normative status. For example, ‘to assert is to commit oneself to the truth of the expressed proposition’ or ‘to assert is to entitle others to use the expressed proposition in inference’ are schemas in the spirit of Brandom (1994, 2000).

In what remains of this section, I argue that both positional and non-positional theories can accommodate KRH. As a preview, positional theories can accommodate KRH by making reference to speaker knowledge in how the schema’s blank is filled (§2.2.1). Non-positional theories can because they have a variety of ways to indirectly mimic positional theories that accommodate KRH (§2.2.2). The only theories of assertion that cannot accommodate KRH are those which have an epistemic position weaker than knowledge appear in the schema’s blank (§2.2.3). To appreciate the spread of positional theories on offer, I consider prominent ways of developing the remaining

dimensions mentioned earlier.

2.2.1 Positional theories

The major dimension along which positional theories differ is explaining how a position is represented. Three theories are commonly defended. The first is an EXPRESSIVE THEORY. On an expressive account, an assertion is associated with an epistemic position because a speaker publicly expresses an attitude like belief in what's asserted. Frege (1892) is an early advocate of such a view. For him, assertion involves the expression of judgment in the thought that is the meaning of the declarative used in a context. Frege is by no means an outlier. Numerous contemporary authors maintain that assertion fully or partially involves the expression of a speaker attitude.² An expressive theory accommodates KRH by having knowledge be what is expressed. In the schema, 'to assert is to express knowledge'.

The next common account of position association is a NORM-BASED THEORY. Such theories characterize assertion with a constitutive or regulative norm requiring the speaker to occupy a particular epistemic position towards the proposition asserted. They fill-in this template.

NORM TEMPLATE

S must: assert that *p* (in context *c*) only if *S* occupies position *E* with respect to *p* (in *c*).

Association with an epistemic position falls straightforwardly out of the norm template. An assertion is associated with a position because the act-type is individuated by a norm requiring speakers to occupy that position. Norm-based theories accommodate KRH by having knowledge occupy *E* in the norm schema. Williamson (2000) is notorious for defending the knowledge norm and the knowledge norm is presently

² Among others, see Searle (1969), Bach and Harnish (1979), Grice (1989), McDowell (1980), Brandom (1994), Alston (2000), Adler (2002), Williams (2002), Owens (2006), Turri (2011), Green (2013), and Hindriks (2007).

the most widely endorsed name-based theory.³ \ulcorner to assert is to act while governed by the knowledge norm \urcorner is the schematic version.

Another account worth mentioning is an EFFECTS-BASED THEORY. Effects-based theories characterize assertion with the effects the act typically has. They are not a species of positional theories inherently—the effects identified could be wholly unrelated to a speaker’s epistemic position. However, the standard theory owed to Stalnaker (1978, 2002, 2014) is positional. For him, the essential effect of an assertion is adding the asserted proposition to the COMMON GROUND. The common ground is the set of propositions that conversational participants mutually accept. In this way, an assertion is associated with an epistemic position because an assertion is a proposal for participants to adopt a position like the speaker’s own. Though Stalnaker regards the common ground as propositions mutually accepted, acceptance is easily changed to knowledge to accommodate KRH.

With respect to the second dimension along which positional theories of assertion can vary, I use *epistemic position* liberally to denote the doxastic attitudes or evidence of a speaker. As a result, theories can vary by appealing to different evidence sources, attitudes or mental states, or some combination thereof. The most commonly associated epistemic position is belief or knowledge. But other views have been proposed that associate assertion not with a particular attitude, but with a particular evidential state of the speaker.⁴ However, accommodating KRH requires that the position typically associated with assertion is knowledge.

The final dimension concerns the flavor of propriety or impropriety involved with occupying or not occupying the position represented. Usually, views of propriety pair with different ways of specifying how an epistemic position is associated. Improper assertion on a norm-based theory is a norm violation. Improper assertion is therefore

³Adler (2002), Blaauw (2012), Benton (2011, 2012, 2016a,b), DeRose (2002, 2009), Kelp (2016), Reynolds (2002), Sutton (2005), Schaffer (2008), Simion (2016), and Turri (2010, 2011, 2013) are representative.

⁴For example, Lackey (2007) associates assertion with what is reasonable to believe, Douven (2006) associates assertion with what is rationally credible, and McKinnon (2013, 2015) associates assertion with having supportive reasons. I later discuss some of the data that motivates these theories of assertion in §2.4.

an epistemic wrong because the nature of the norm is epistemic. By contrast, expressive theories sometimes identify improper assertion as a moral wrong. Intentionally misrepresenting one's epistemic position, according to Davidson (1985), is a form of deceit for which speakers are morally responsible. We can easily envision theories for which the propriety is merely practical too.

Though positional theories can vary in how knowledge is represented and what a speaker does wrong by representing without knowing, KRH is easily accommodated. As a consequence, KRH enables a wide range of positional theories to appeal to speaker knowledge.

2.2.2 Non-positional theories

A non-positional theory cannot directly accommodate KRH because it fills-in the schema 'to assert is to _____' with properties unrelated to the speaker's epistemic position. Assuming the explanatory power of KRH to be argued in §2.3, the failure to accommodate KRH directly might seem to hold the promise of progress. We can eliminate non-positional theories of assertion in favor of KRH-friendly positional theories. But no such progress is made. Non-positional theories can be just as accommodating of KRH as positional theories because various strategies exist for indirectly associating an epistemic position like knowledge. Most of these strategies are already present in the literature. I highlight two.

The first is the EXPLICATION STRATEGY. To be a non-positional-theory, the blank must be filled in without reference to the speaker's epistemic position. And yet, the pivotal terms or concepts that fill-in the blank need to be explicated. The way in which they are explicated may then introduce reference to a speaker's epistemic position. The theory of assertion defended by Brandom (1983, 1994, 2000) aptly illustrates. His theory is not usually classified as a positional theory of assertion. For example, MacFarlane (2011) and Cappelen (2011) each offer a taxonomy for theories of assertion. Though their taxonomies cross-cut the positional/non-positional distinction, they each create a separate category for theories in which a speaker undertakes commitment in performing an assertion and slot Brandom's theory into this category.

Such a classification is understandable in that Brandom characterizes assertion according to how it changes a speaker's commitments. Brandom (1983, 646) describes assertion thusly:

Each interlocutor keeps score for himself and for others, in the form of attributed commitments. Making a move in the assertion game can change this score.

But when it comes to explaining what kind of commitments are changed by assertion, Brandom makes reference to the speaker's epistemic position. Commitments are doxastic in nature. To properly undertake commitment to a proposition—to be entitled, in his terminology—requires the speaker to be ready to justify that commitment if challenged by giving reason for the proposition. Reasons are related to commitments as evidence is related to beliefs. As a result, Brandom's view is one where the speaker does represent or express belief through assertion. Later Brandom (1994, 154) is explicit about this:

Sentence-utterings can have many sorts of force or pragmatic significance, but when such performances have the significance of assertions, they express or purport to express beliefs.

What is important to note, though, is that Brandom does not have a view of belief where it can be understood prior to or independent of its role being expressed through linguistic practice. Despite these and other differences, Brandom's view is indirectly positional once explicated. His theory therefore shows a way in which a non-positional theory can imitate one by explicating key terms in ways that yield position representation. Other non-positional theories can deploy a similar strategy to make the representation of speaker knowledge an effect of assertion even if it is not what directly characterizes assertion.

The second strategy for indirectly associating assertion with speaker knowledge is the SINCERITY STRATEGY. At least as far back as Searle (1969), speech acts have been thought to have conditions on their proper use specifying when they are performed sincerely by a speaker. Sincerity is typically tied to the representation of a position or

mental state. To sincerely perform an act is to possess or believe oneself to possess the mental state or position represented by that act. With a positional theory of assertion, sincere assertion is what I earlier called proper assertion. However, non-positional theories can tack-on to their characterization of assertion with sincerity conditions requiring speaker knowledge. The blank in ‘to assert is to _____’ can be developed without reference to speaker knowledge, but that characterization of assertion can be supplemented with the condition that to blankety-blank sincerely requires that the speaker knows what she asserts. Then non-positional theories can appeal to such conditions in explaining the declarative data.

Rescorla (2009) pursues just this strategy. He defends a non-positional theory that characterizes assertion according to the special commitments a speaker undertakes. Inserted into the schema, his theory can be characterized thusly: ‘to assert is to undertake commitment to give reasons for what was asserted if challenged by a participant’. But Rescorla still affirms that an assertion represents the speaker as believing or knowing the proposition asserted. In considering whether position representation favors a positional theory, he argues that it does not by integrating positional sincerity conditions into his commitment-based theory. In his words, “while apparent sincerity may not be necessary for *undertaking* dialectical commitment, it is necessary for *discharging* dialectical commitments (2009, 110).”

The virtue of both strategies is that they make the representation of speaker knowledge an invariant feature of assertion. There are other strategies for imitating positionality that lack this virtue. For example, one suggestion hinted at by MacFarlane (2011) is that assertion could be correlated with speaker knowledge in normal conditions and conversational participants are mutually aware of this correlation. That will ensure position representation sometimes accompanies an assertion, but not always. There will still be non-normal contexts where the speaker cannot be expected to know what they assert (e.g. lawyers defending guilty clients, participants playing devil’s advocate). In these contexts, the normalcy strategy will not enable non-positional theories to be fully explanatory. Most of the data cataloged in §2.3 occurs in any context whatsoever. So the data goes unexplained with any imitation strategy that works only for assertions

a speaker performs in normal contexts.

We have seen enough to conclude that non-positional theories have various strategies for accommodating KRH. They can explicate the key terms or concepts used in the blank in ‘to assert is to _____’ with essential reference to the speaker’s epistemic position or they can supplement the theory with sincerity conditions requiring speaker knowledge. Either route works to accommodate KRH. A hearer can typically expect a speaker to assert sincerely, for example. Since sincerity requires knowledge of what is asserted, a hearer can typically expect a speaker to know what she asserts in the context.

2.2.3 Unaccommodating theories

What about positional theories that complete ‘to assert is to _____’ with reference to an epistemic position weaker than knowledge? Let’s reserve WEAK THEORIES to name this family. Most weak theories in the current literature are norm-based theories. They cannot directly accommodate KRH for the simple reason that another position is regarded as essential to assertion.

To illustrate, consider various ways of elaborating on how representation takes place in a context. With a norm-based theory of assertion, representation is a side effect of the norm. In the words of Williamson (2000, 253, *fn.6*), “In doing anything for which authority is required. . . one represents oneself as having the authority to do it.” Since having the epistemic authority to assert is having the position required by the norm, the position represented through assertion is the position required by the norm. Requiring something weaker than knowledge therefore represents the speaker as having the weaker position. For another example, entertain an effects-based theory. Since an assertion is a proposal to add a proposition to a body of information that is mutually ϕ ’d by participants, the speaker can be expected to occupy position ϕ already. Whatever is the epistemic position that is common between participants is therefore the position that the speaker represents.

What about indirect accommodation? Few weak theories can help themselves to either of the imitation strategies discussed in §2.2.2. Start with the explication strategy.

Of the two strategies, the explication strategy can be adopted by some. Here is an example from the current literature. Many favor an expressive theory oriented around belief where 'to assert is to express belief'. Take that theory but add that the norm on proper belief is knowledge. Hindriks (2007) and Bach (2008) maintain that a knowledge norm of assertion is consequently derivable because assertion inherits the norm on belief.⁵ Proper assertion requires knowing what one asserts because one can properly express belief in a proposition only if one knows it. Such a maneuver is clearly an explication strategy. In explicating what is true of belief, knowledge appears as its norm and reshapes assertion's normativity.

Importantly, few positional theories can adopt the explication strategy in the way illustrated with an expressive theory. Most theories associating a position weaker than knowledge do so for a reason. For example, they are designed to accommodate deviant data, which I discuss in §2.4, where a speaker does not know what she asserts but her assertion still appears to be proper.

Turn next to the sincerity strategy. Such a strategy makes sense for a non-positional theory without the resources to explain how or when an assertion is proper. Sincerity conditions provide as much. But supplementation is unnecessary for a positional theory because such a theory has a built-in account of propriety. Whatever position is represented, assertion is proper only if the speaker actually occupies the position they represent themselves as having. As a result, supplementing a weak theory with extra sincerity conditions can yield a contradictory classification of an assertion's normative status. To illustrate, suppose a theory like that of Lackey (2007) where assertion is associated with the speaker having evidence on which what's asserted is reasonably believed. Then supplement that theory with sincerity conditions requiring the speaker to know what they assert. Since knowledge is more demanding, the resultant view predicts that there can be proper but insincere assertions. But propriety as introduced fulfills the same role as sincerity does for a positional theory of assertion. They

⁵See Adler (2002), Williamson (2000), Sutton (2005), and Littlejohn (2011) for a defense of the knowledge norm on belief. Ball (2014) and Simion (forthcoming) provide critical discussion of this derivation of the knowledge norm.

are interchangeable. Accordingly, to predict that an assertion is proper but insincere is to predict that it is proper and improper.

I conclude that most positional theories making reference to a position weaker than knowledge cannot accommodate KRH either directly or indirectly. Accommodating KRH is limited to positional theories that give a privileged place to speaker knowledge and non-positional theories that are developed in such a way that KRH can be snuck in through the back.

2.3 To the data

Having seen ways of accommodating KRH, we turn now to the declarative data. All declaratives in English are either QUALIFIED or UNQUALIFIED. A declarative is qualified only if it contains epistemic vocabulary that specifies what epistemic position is represented by the use of the declarative in a context. Though most if not all epistemic vocabulary can have this effect, I dwell on parenthetical verbs throughout this dissertation.

(1) Whiz DJ'ed.

(2) Whiz DJ'ed, I think.

The declarative data canvassed in this section exclusively concerns unqualified declaratives like (1) and what speakers do with them. Though rarely argued for, an assumption running through the literature on assertion is that only unqualified declaratives can be used by a speaker to perform assertion in a context.⁶ Let's call this the UNQUALIFIED ASSUMPTION. I adopt this assumption for the sake of exploring declarative data as it is traditionally understood.

To ease readability and not prejudge how to answer NQ, I use *declare* and cognate terms to describe what a speaker does by using an unqualified declarative sentence

⁶Those who argue for this methodological assumption include Williamson (2000) and Adler (2002). Incidentally, McKinnon (2013, 2015) offers a norm-based theory of assertion that extends to qualified declaratives, but she does not discuss this feature of her view. See Benton and van Elswyk (2018) for relevant discussion.

in a context. §2.3.1 discusses conversational data, §2.3.2 canvasses linguistic data, and §2.3.3 presents normative data. For each piece of data in each category, I gloss how KRH explains it. I do not go into detail for how particular ways of accommodating KRH differ in the explanatory nitty-gritty. I leave that as an exercise to the reader. The data and how knowledge representation is broadly explanatory of the data is this section's focus.

2.3.1 Conversational data

Conversations are turn-taking activities in which uses of sentences comprise a participant's turn (Sacks et al., 1974; Stivers et al., 2009). Understanding what the use of a sentence does in a context must include what it accomplishes as a turn. Deploying a distinction from Carlson (1982), uses of sentences are either PAY-OFF or SET-UP TURNS. A set-up turn directs the conversation towards fulfilling a goal and a pay-off turn partially or fully fulfills that goal. When exploring what the use of a sentence type *T* does, we can investigate how *T*'s use is typically set-up, how *T*'s use is typically a pay-off, and how *T*'s use typically sets up turns.

Uses of declaratives or declarations are no exception. Their typical pay-off is that they provide content. But they do much more. Consideration of how they are set-up and how they set-up brings them into focus. Their typical set-up turn is the asking of a question. A question requests information and a declaration provides some or all of that information.

- (3) (A) Who DJ'ed?
(B) Whiz DJ'ed.

The exchange in (3) illustrates. Of special interest to us is that set-up questions can be indirect. As Turri (2011) noted, one probative way a speaker may ask a question indirectly is by asking whether a participant knows the answer to the question the speaker wants resolved.

- (4) (A) Do you know who DJ'ed?
(B) Whiz DJ'ed.

The above exchange is interesting because (4B) has the same pay-off as (3B) even though they are set-up differently. That feature of the exchange is not unique either. Declarations generally have the same pay-off to questions about a topic as they do to questions about what the speaker knows about that topic. That provides data about declarations *qua* turn to be explained.

Sometimes a participant is set-up for a pay-off turn they cannot deliver. The prior speaker wants their help meeting a goal in the conversation that they lack the ability to meet. That happens with declaration when a question is asked which the participant cannot partially or fully answer. The participant therefore needs to convey that they cannot perform a declaration. As (5B) illustrates, various conventionalized ways exist for opting out.

(5) (A) Who DJ'ed?

(B) I don't know / I have no idea.

These opt-outs are alike in that they disclose that the participant's epistemic position is limited. They differ in that *I have no idea* conveys that the participant has no evidence relevant to the question whereas *I don't know* does not. The evidence for this difference is the continuations each enables. Following with *But I heard that Whiz DJ'ed* is felicitous with *I don't know* but infelicitous with *I have no idea*. That reveals something important about opting-out. A participant can still have relevant evidence such as third-person hearsay, but having relevant evidence is not enough to preclude a participant from having a sufficient reason for opting-out. As long as a participant does not know the answer to the question asked, the participant has a recognizable reason for opting-out of declaration. In Reynolds (2002, 140) words, "In every case someone who truthfully says "I don't know" gives an acceptable reason for not answering." Consequently, it ought to be explained why a participant's not knowing the proposition expressed enables them to opt-out of performing a declaration even if prompted by another conversational participant.

The last few exchanges have focused on data related to how declaration is set-up as a turn. We turn now to how declaration itself sets up later turns. Once a declaration

is made, participants usually have three responses to choose from. They can accept, challenge, or reject the information shared with them. An acceptance response usually just acknowledges the prior turn. An acceptance response facilitates what Clark and Brennan (1991) call *GROUNDING*. Successful communication requires participants to be regularly coordinating about how they are responding to conversational turns. Grounding happens when participants coordinate on what information has become common ground. Participants do not need to state outright that they accepted what was said. A nod, hand gesture, or short reply like *Mhm*, *okay*, and *yeah* suffice. Sometimes participants signal acceptance by commenting on the informativeness of what was stated. Replies like (6B) are familiar. Interestingly, these replies mirror the opt-out replies from (5B).

(6) (A) Whiz DJ'ed.

(B) I had no idea / I didn't know that.

Where the opt-outs were in the present tense, the acceptance replies are in the past tense. Such a difference enables the acceptance replies to generate what Altschuler and Schwarzschild (2012) call a *CESSATION IMPLICATURE*. A cessation implicature conveys that the event described in the past tensed verb does not currently obtain. In this case, *I have no idea* implicates that the speaker now has an idea and *I didn't know that* implicates that the speaker now knows that Whiz DJ'ed. That furnishes us with previously unrecognized data about declaration. We need an explanation for why a participant can signal acceptance of a proposition by communicating that they did not have an idea about or knowledge of a proposition prior to the declaration but they do presently because of the declaration.

Challenges provide related declarative data. Unger (1975) and Williamson (2000) observe that participants not willing or reluctant to accept what was declared may challenge the speaker. The politeness of challenges vary. Some are more aggressive than others. Polite challenges like (7B) request elaboration and impolite challenges like (8B) are accusations.

(7) (A) Whiz DJ'ed.

(B) Why do you believe that? / How do you know that?

(8) (A) Whiz DJ'ed.

(B) You don't believe that! / You don't know that!

The questions in (7B) are insightful because they presuppose that the speaker believes or knows what they declared.⁷ That presupposition is transparent in the form taken by a complete answer to each question: *I believe this because...* or *On the basis of..., I know that Whiz DJ'ed*. Every complete answer to either question requires the truth of the speaker knowing or believing. Accordingly, the naturalness of the questions as challenges requires participants to already accept that the speaker believes or knows what they declared.⁸ In exchanges where the challenging participant did not have beliefs about the speaker's attitude prior to the declaration, the declaration itself must be what provides the reason for accepting as much. What makes the flat-out accusations in (8B) less polite is that they do not accept on the mere basis of the declaration that the speaker believes or knows.

A final line of data concerns how both questions and declarations can be prefaced. Prefaces often disclose what the speaker takes the pay-off of their turn or a subsequent turn to be.

(9) Just so I know, did Whiz DJ?

(10) Just so you know, Whiz DJ'ed.

⁷McKinnon (2012) suggests that *knows* does not have this presupposition in the challenge. But she gives no cause to doubt the usual and traditional reasons for regarding *knows* as a semi-factive attitude. See Kiparsky and Kiparsky (1970) and Karttunen (1973), for example. The reasons she does offer are also not compelling. For example, she notes that, when a challenger doubles-down with *But do you know that?*, the speaker often demurs in response. Her explanation of the demurral is that the presupposition is missing from the first challenge. But other explanations are easy to find. One explanation is that speakers demure as a way of deescalating the disagreement to save face (Brown and Levinson, 1987). Another explanation is that the stress on *knows* changes its meaning as a context-sensitive expression sensitive to which relevant alternatives can be eliminated.

⁸In reply to Williamson (2000), Kvanvig (2009) argues that challenge data proves too much and too little because participants can challenge by reference to stronger positions like *Are you certain?* as well as with reference to weaker positions like *Do you think that?*. A number of responses are given by Turri (2011) that I endorse. One worth highlighting is that that knowledge is special because it figures in prompts when some of these other positions do not. Such a response is supercharged by the opt-out and acknowledgment data. Such data does not make reference to certainty or belief, but it does make reference to knowledge.

Turri (2016) points out that the preface to both (9) and (10) disclose a common expectation: that the use of an unqualified declarative transmits or conveys knowledge to conversational participants. In prefacing a question, *Just so I know* anticipates that an answer to the question will equip the speaker to know what is said. Similarly, *just so you know* assumes that a declaration equips a participant to know. Why that common expectation is natural deserves explanation.

Altogether, the conversational data exhibits surprising uniformity. Consider the opt-out data in (5). Though not knowing does not require having no idea, not having an idea entails not knowing. You cannot know what you do not have any idea about. As a result, both conventionalized opt-outs are knowledge disavowals because *I have no idea* is another way of disavowing knowledge. A similar asymmetry brings uniformity to the challenge data illustrated in (7) and (8). Since knowledge requires belief, challenging the speaker's belief or querying their source of belief doubles as a challenge to or query about their knowledge.

The appearance of *knows* and cognate terms in the data is not easily substituted with terms denoting other positions either. As a preface to a question, *Just so I believe* is very awkward. *I didn't think that* is very unnatural in comparison to *I didn't know that* as an acknowledgment of a prior declaration. It does not as easily generate the cessation implicature that the speaker present thinks what was just said to them. When it comes to prompting declaration, matters are no different. A polar question like *Do you know who DJ'ed?* can have the same pay-off as the constituent question *Who DJ'ed?* but *Do you think that Whiz DJ'ed?* does not. It resists interpretations where its pay-off is not merely about what the addressee thinks.

The conversational data is therefore well-explained by KRH. Declarations represent the speaker as knowing what she said in that context. Accordingly, declarations can be set-up by asking whether a speaker know because a declaration tacitly answers that question by representing the speaker as knowing. Speakers can opt-out of declaration by disclosing that they do not occupy the position that would be represented if they did. Agreement with a declaration is signaled by conversationally implicating that the participant knows on the basis of the speaker's presumed knowledge. Challenges

target how or whether the speaker knows because the speaker backed their declaration by representing her knowledge. Finally, questions or declaration anticipate the transmission of knowledge because a declaration represents speakers as expressing a proposition that is known.

2.3.2 Linguistic data

As an account of what a speaker does by using an unqualified declarative in a context, a theory of assertion is widely taken to explain data about declaratives that a semantic theory is ill-suited to explain. This sections focuses on such data. The first I mention is owed to Moore (1942, 1962). He observed that discourses like (11) and (12) are defective.

(11) #Whiz DJ'ed, but I do not know that.

(12) #Whiz DJ'ed, but I do not believe that.

Following the use of *Whiz DJ'ed* with a denial of speaker knowledge or belief in that proposition rings discordantly like a contradiction. But it is not a logical contradiction. That Whiz DJ'ed and that the speaker does not know or believe as much can both be true. The standard diagnosis is that such defectiveness is a pragmatic contradiction. Since the meanings of *Whiz DJ'ed* and *I do not know/believe that* are not incompatible, there must be something about their use in a context which is incompatible. We need an explanation of what that something is.

We have so far focused only on unqualified declaratives because they alone are regarded as having the power to token an assertion. But considering qualified and unqualified declaratives side-by-side furnishes important data about unqualified declaratives.

(13) Whiz DJ'ed.

(14) Whiz DJ'ed, I believe.

In comparison, (13) is stronger than (14). The speaker backs or recommends that Whiz DJ'ed with greater gusto or oomph. An explanation of what a speaker does by

using an unqualified declarative should identify the nature of that strength and how it varies between different declaratives.

Not all epistemic vocabulary can be used to modify the strength with which a proposition is presented by a speaker. A peculiar fact noted by Benton (2011) is that one cannot generally use *knows* parenthetically like *think* or *believe*. Unlike (14), (15) is deficient.

(15) ?Whiz DJ'ed, I know.

That deficiency, which appears linguistic in nature, prevents *knows* from altering strength. McKinnon and Turri (2013) note that there are cases where *knows* is not deficient in a parenthetical position. Suppose we were vigorously debating whether Whiz DJ'ed, but the debate was just settled by watching a video of Whiz spinning records at the club.

(16) (A) Look! Whiz DJ'ed.

(B) Whiz DJ'ed, I know (, I know).

In this context, parenthetical *knows* is no longer deficient like it was in (15). Instead, it helps to convey that the assertion in (16A) is otiose. The first speaker did not need to assert that Whiz DJ'ed because the addressee already knew having watched the video. But *knows* in (16B) still makes no difference to strength. That makes it unlike other epistemic expressions. (16B) is just as strong as its unqualified counterpart (13). Since we already require an explanation of the strength associated with an unqualified declarative, that explanation should at least partially help us understand why parenthetical *knows* does not weaken or strengthen.⁹

KRH is once again able to uniformly explain the data. Moorean discourses like (11) and (12) are infelicitous because a speaker represents herself as knowing what she

⁹This way of characterizing what a theory of assertion needs to explain differs from Benton (2011). He focuses only on why *knows* is typically infelicitous if used parenthetically. The explanation he offers is that its use is redundant because the declarative is already associated with speaker knowledge at the illocutionary level. McKinnon and Turri (2013) object that Benton's explanation does not extend to parenthetical uses of *knows* that are felicitous like (16B) but still redundant. However, framing the data in terms of why *knows* cannot be used to modify strength allows us to capture what is common to both (13) and (16B). I offer my own take on this data in §3 where I defend a semantic explanation of KRH as opposed to an act-based one.

states. Subsequent denials of belief or knowledge therefore contradict that representation. The other two pieces of linguistic data receive a different yet parallel explanation. As Benton and van Elswyk (2018) hypothesize, the strength with which a speaker recommends a proposition is a function of the strength of the epistemic position associated with the declarative used to express the proposition. The weaker the position, the weaker the strength. Declaratives qualified with parentheticals associate positions through the semantic content of the parentheticals. The position associated with *Whiz DJ'ed, I believe* is speaker belief. However, an unqualified declarative does not overtly specify a position. That is where KRH helps. It predicts that (13) is stronger than (14) because knowledge is stronger than mere belief. Likewise, the reason *I know* cannot be used to alter strength is that an unqualified declarative is already associated with speaker knowledge.

2.3.3 Normative data

Uses of unqualified declaratives under certain conditions are wrong. Speakers who declare under these conditions are therefore liable to blame or censure from conversational participants. A speaker can be liable for blame by using a declaratively too loudly in the quiet car of a train, but, importantly, that act was not wrong *qua* declaration. As a result of being sourced extrinsically, the wrongness does not need to be explained through an account of what a speaker does by declaring. The wrongness considered below plausibly does.

An example of a wrong declaration is one made about a ticket in a fair lottery. Williamson (2000, 246) elaborates:

Suppose that you have bought a ticket in a very large lottery. Only one ticket wins. Although the draw has been held, the result has not yet been announced. In fact, your ticket did not win, but I have no inside information to that effect. On the merely probabilistic grounds that your ticket was only one of very many, I assert to you flat-out “Your ticket did not win”, without telling you my grounds. Intuitively, my grounds are quite inadequate for that outright unqualified assertion, even though one can construct the example to make its probability on my evidence as high as one likes, short of 1, by increasing the number of tickets in the lottery. You will still be entitled to feel some resentment when you later discover the merely probabilistic grounds for my assertion. I was representing

myself to you as having a kind of authority to make the flat-out assertion which in reality I lacked. I was cheating.

Implicit in Williamson's discussion is a contrast between qualified and unqualified or flat-out declaratives. The use of an unqualified *Your ticket did not win* in the conditions described is what makes the speaker liable for blame. Qualified variants like *Your ticket did not win, I think* do not have the same effect. Such a difference in normative effect between declaratives merits explanation.¹⁰

Another form of normative data invoked by MacFarlane (2011, 2014) concerns the use of a declarative's relation to retraction. Borrowing a label from Ginzburg (2012), retraction is a METACOMMUNICATIVE ACT. As a turn in a conversation, retraction is not used to pay-off a prior turn. Instead, retraction—if successful—erases the effect of a turn taken earlier in the conversation. Retractions are performed by sentences like *I take that back* or *Scratch that*. A speaker can attempt to retract a previous act for all sorts of reasons. Maybe a sentence they used was clumsily worded. Then they could retract the act the sentence performed to create room for re-performing that act with a better sentence. Retraction takes on a normative dimension because sometimes a speaker ought to retract a prior turn. They are liable to blame or censure by conversational participants if they do not take it back.

Declarations ought to be retracted in at least two scenarios. In the first, some ought to be retracted immediately. Lottery statements are an example. Presumably whatever makes the statement wrong initially is what makes its retraction mandatory too. However, some declarations are such that a speaker is not initially obliged to retract but must retract only after conditions change. Consider a conversation in which participant *A* stated that *Whiz DJ'ed* to participant *B*, but sometime later in the conversation remembers contrary evidence that compels them to completely disbelieve or

¹⁰In addition to Williamson (2000), the wrongness of lottery declarations is noted early on by Dudman (1992), DeRose (1996), and Hawthorne (2003). But mileage varies on whether lottery declarations are always wrong. For example, Hill and Schechter (2007, 110-111) claim that participants can challenge a speaker claiming her ticket might be a winner with "Get serious. We both know that you're not going to win the lottery. You should just forget about that possibility." Even if they are right that lottery declarations are not always wrong, we are not left without data. Speakers will still be judged by some as liable for using an unqualified declaratives to say a ticket is a loser but not be judged similarly for using a suitably weak qualified declarative. That comparative generalization of wrongdoing still requires explanation.

suspend belief on whether Whiz DJ'ed. Aware that *B* might have come to believe that Whiz DJ'ed on the basis of their earlier statement, *A* faces a choice. Retract their earlier statement or leave it be. From a normative perspective, the second choice seems wrong. Were *B* to find out that *A* did not retract, they would be entitled to feel resentment. "I trusted you! Why would you let me keep believing that?", we might imagine them exclaiming to *A* in frustration.

Essential to the latter scenario is that the speaker becomes aware that they cease to know or believe the proposition previously expressed. That is the change which renders retraction mandatory. It is not enough to compel retraction for participants to believe either that what was said is false or that the speaker no longer knows or believes. The speaker can defend their previous act. Even if the evidence stacks higher and higher against the truth of the proposition expressed, the speaker still does not need to retract. They might make themselves liable to epistemic blame for not basing their attitude on the available evidence. They may, in other words, exhibit wrongdoing as epistemic agents in refusing to retract. But they have not made themselves liable to blame for having declared. Only when they are aware that they cease to know or believe are they required to retract. That is what an account of what a speaker does by declaring should help us understand.

The final data is related to data from §2.3.2. As noted there, qualified declaratives can be weaker than unqualified declaratives. That strength difference corresponds to a normative difference. A speaker hedging with *Whiz DJ'ed, I think* undertakes less responsibility than they would with the use of the unqualified counterpart. The difference in the amount of responsibility or commitment shows itself in what challenges are appropriate to a qualified declarative. Consider qualified declaratives that weaken. Conversational participants have to demand less from a speaker who hedged than a speaker who did not. Circling back to §2.3.1, we saw that *How do you know that?* and, more aggressively, *You don't know that!* are ways of challenging the use of an unqualified declarative. These challenges are infelicitous in response to a qualified declarative like (17A).

(17) (A) Whiz DJ'ed, I think.

(B) #You don't know that!

The change in responsibility is partly why speakers hedge. They are on the hook—so to speak—for less. Just as an account of declaration has the task of explaining why acts performed with unqualified declaratives have the strength they do, an account has the task of explaining why they have the amount of responsibility or commitment they do in contrast to qualified declaratives.¹¹

To explain the above, we do not need to look further than KRH. A declaration like any act is something for which a speaker is responsible for performing. It has two effects in a context according to KRH: it expresses a proposition and represents the speaker as knowing that proposition. So speakers are responsible for both effects. The second effect is defective when it misrepresents the speaker's position. A speaker undertakes responsibility for it being non-defective. They are therefore on the hook for the position represented being the position they truly occupy. When they do not occupy the position, they are liable to blame. As canvased in §2.2, the nature of this normativity—whether epistemic, moral, or other—is partially up to a particular theory that accommodates KRH to specify.

With the link between position representation and responsibility broadly understood, we can easily account for the the liability incurred with a lottery assertion. Speakers declaring represent themselves as knowing what they said. But they are not able to know who will win a fair lottery without insider information. As a result, lottery assertions represent speakers as knowing something for which it is common ground that they are not able to know. Put differently, lottery assertions publicly misrepresent epistemic position and speakers are liable to blame or censure for such misrepresentation. Retraction is importantly related to misrepresentation as well. In the second scenario discussed, the speaker becomes aware that they cease to know or believe what they said because they remember compelling evidence against it. As a

¹¹Explaining the normative difference between qualified and unqualified declaratives requires a stance on how commitment or responsibility can vary in strength. Usually, both are understood as binary. There are no partial or degreed intermediary states. There are exceptions to note. See Coates and Swenson (2013) and Nelkin (2014) for discussion of degreed responsibility and Shpall (2016) for discussion of gradable commitment.

result, their epistemic position changes. Given that change, retraction becomes necessary to avoid misrepresentation.

Finally, the responsibility or commitment altering effect of parentheticals is owed to the fact that they change the strength of the epistemic position that a speaker represents herself as occupying. Positions differ in their demandingness. To know that Whiz DJ'ed requires more epistemically than merely thinking that Whiz DJ'ed. To be rationally permitted to think it, the speaker needs some evidence but that evidence does not need to be particularly high-quality or high in volume. Not so for knowledge. A difference in the amount of responsibility or commitment therefore is a difference in what a speaker has to answer for. Speakers wanting to answer for less will represent a weaker position, speakers willing to answer for more will represent a stronger position.

2.3.4 Scorecard

Over the last three subsections, we have considered eleven pieces of data falling into three categories. Figure 2.2 summarizes the data we have seen with a checkmark signifying the data is new.

Conversational	Prompting assertion	
	Prefacing assertion	
	Opting out	
	Acknowledgement	✓
	Challenging assertion	
Linguistic	Moore's paradox	
	Forceless <i>knows</i>	
	Strength ordering	✓
Normative	Lottery assertions	
	Mandatory retraction	
	Responsibility amount	✓

Figure 2.2: Declarative data

The data presents a unified picture wherein the use of an unqualified declarative represents the speaker as knowing the proposition expressed. None of this is surprising when we have accepted KRH. With all of the data in view, it is to be recommended for being both explanatory and uniform in its coverage. Though there may be alternative explanations for some of the data considered, there are no alternative explanations that cover all of the data.

2.4 Deviant data

The proposal that knowledge is the epistemic position associated with assertion has detractors. Some favor a positional theory of assertion where 'to assert is to _____' is filled in with reference to an epistemic position different from knowledge. These theories are all motivated with counterexamples. I discuss these putative counterexamples in §2.4.1 and argue in §2.4.2 that they do not provide a reason for abandoning KRH.

2.4.1 Putative counterexamples

The knowledge norm of assertion is the most widely adopted theory that accommodates KRH. The data to be discussed are putative counterexamples to that norm. What they have in common is that three conditions on the use of an unqualified declarative are allegedly satisfied:

- (I) A speaker performs an assertion,
- (II) The speaker does not know what she asserts, and
- (III) The assertion is not improper *qua* assertion such that the speaker is liable to blame or censure.

These counterexamples, if genuine, show that a speaker does not need to know what she asserts for her assertion to be proper. In at least some cases, propriety requires a position less demanding than knowledge.

A prominent barrage of counterexamples is owed to Lackey (2007). Her counterexamples are unified as instances of what she calls SELFLESS ASSERTION. In addition to

allegedly satisfying the three conditions (I) through (III), selfless assertions are ones in which the speaker does not know or believe what's asserted for non-epistemic reasons and yet the speaker still asserts because they are aware that available evidence strongly supports what's asserted. As illustration, here is one of the counterexamples from Lackey (2007, 598).

RACIST JUROR

Martin was raised by racist parents in a very small-minded community and, for most of his life, he shared the majority of beliefs held by his friends and family members. After graduating from high school, he started taking classes at a local community college and soon began recognizing some of the causes of, and consequences of, racism. During this time, Martin was called to serve on the jury of a case involving a black man on trial for raping a white woman. After hearing the relatively flimsy evidence presented by the prosecution and the strong exculpatory evidence offered by the defense, Martin is able to recognize that the evidence clearly does not support the conclusion that the defendant committed the crime of which he is accused. In spite of this, however, he can't shake the feeling that the man on trial is guilty of raping the woman in question. Upon further reflection, Martin begins to suspect that such a feeling is grounded in the racism that he still harbors, and so he concludes that even if he can't quite come to believe that the defendant is innocent himself, he nonetheless has an obligation to present the case to others this way. Shortly after leaving the courthouse, Martin bumps into a childhood friend who asks him whether the "guy did it." Despite the fact that he does not believe, and hence does not know, that the defendant in question is innocent, Martin asserts, "No, the guy did not rape her."

Lackey's lesson is that proper assertion does not depend on a speaker's doxastic states. It depends instead on the evidence available to the speaker and whether that evidence makes it reasonable to believe what is said.

Another variety of counterexample is owed to Pelling (2013). His cases involve what I call EXISTENTIAL ASSERTION. Beyond the three usual conditions, existential assertions occur when a speaker does know that there exists a proposition expressed by a sentence that is true even though they do not know the particular proposition expressed by the sentence. Pelling (2013, 308) presents cases like the following to motivate.

TELLING THE TIME

French holidaymakers Sophie and Marc are visiting England. A stranger asks them the time. Marc doesn't speak English, and so doesn't understand the question. Sophie does speak English, however, and she knows it is exactly five o'clock. Sophie wants to be helpful, but since she is too shy to reply to the

stranger herself, she tells Marc to say “it’s five o’clock”. Marc doesn’t understand that sentence, so he doesn’t know which proposition it expresses. This sort of thing has happened before, however, and Marc knows that the sentence must express some true proposition, or else Sophie would not have told him to say it. On the basis of that knowledge, Marc says to the stranger “it’s five o’clock”. Marc himself has no idea what the time is.

Pelling’s response to such counterexamples is to look beyond the epistemic position of the speaker. Instead of speaker knowledge being what is central to assertion, hearer knowledge is. So proper assertion depends on whether an assertion enables a hearer to potentially know. That will often correlate with speaker knowledge, but, as his cases aim to show, it does have to correlate.

The next cases feature DELICATE ASSERTIONS. These assertions are performed in settings where an important decision needs to be made but the decision-makers are in a delicate epistemic position. Maitra and Weatherson (2010, 101) illustrate with cases like this one.

INDALIAN WAR

Imagine that a country, Indalia, finds itself in a situation in which the thing for it to do, given the evidence available to its leaders, is to go to war against an enemy. . . But it is a close call. Had the evidence been a bit weaker, had the enemy been a little less murderous, or the risk of excessive civilian casualties a little higher, it would have been preferable to wait for more evidence, or use non-military measures to persuade the enemy to change its ways. So, while going to war is the thing to do, the leaders of Indalia can’t know this. [. . .] Our leaders are thus in a delicate position here. The Prime Minister of Indalia decides to launch the war, and gives a speech in the House of Commons setting out her reasons. All the things she says in the speech are true, and up to her conclusion they are all things that she knows. She concludes with (1).

(1) So, the thing to do in the circumstances is to go to war.

Now (1) is also true, and the Prime Minister believes it, but it is not something she knows.

Maitra and Weatherson conclude that knowledge is too strong. What matters for proper assertion is having an attitude towards what’s asserted that is properly responsive to the evidence. As long as you are properly responsive, as the Prime Minister of Indalia is, the assertion is proper as well.

McKinnon (2013, 2015) authors the final variety of counterexample I mention. Her cases I call DISTAL ASSERTION. They are typified by a speaker making an assertion

they know is false in order to facilitate a true and related assertion in the future. As one might expect, classroom settings are where such assertions are most likely to occur in the wild. The following vignette is what McKinnon (2015, 65) uses to illustrate her point.

PHYSICS TEACHER

Suppose that Jenny is teaching a grade 10 science class. She wants to explain the structure of an atom, and, more specifically, the electron configuration of different elements. Jenny is well aware that an early model of the electron structure of atoms, the Bohr model, is no longer considered accurate. Under the Bohr model, electrons travel in restricted orbits. . . . More recently, though, the Bohr model has been replaced with the valence model. Under the valence model, due to incorporating principles of quantum mechanics such as Heisenberg's Uncertainty Principle, electron "orbits" are replaced with probability "clouds." . . . So knowing all of this, Jenny also knows that her students aren't yet able to understand the valence model, but they are able to understand the Bohr model. Students of this age are typically not yet acquainted with concepts of quantum mechanics, and need to learn concepts such as the Bohr method as a stepping-stone. So when it's time to teach her students about the electron structure of atoms, she asserts, "Electrons behave according to the Bohr model."

Like Lackey, McKinnon's lesson is that the epistemic position associated with assertion is weaker than knowledge. Assertion is, for her, associated with a speaker having a particular kind of reason.

2.4.2 Deviant explanations

A common response is to deny that the cases are actually counterexamples because one or more of the initial three conditions is not fulfilled. It has been argued that (I) is not fulfilled because the acts are speech acts other than assertion (Milić, 2015, 2017), that (II) is not fulfilled because the speaker does know or believe despite how the cases are described (Turri, 2015), and that (III) is not fulfilled because they are still improper as assertions but other practical or moral exigencies render such wrongdoing excusable (Williamson, 2000; Benton, 2016b).

Though I endorse the latter two responses, I offer an additional response. The cases are presented as counterexamples to the knowledge norm of assertion. However, the thesis defended in this chapter is KRH. The knowledge norm is one way to develop a theory of assertion that accommodates KRH but it is not the only way. KRH's truth

does not require KN—it is independent. To that end, we should ask whether the counterexamples make the same trouble for KRH.

I submit that they do not. Note that the cases do not concern what is represented by the speaker but what is proper for the speaker to do. Accordingly, they do not give reason to think that the speaker does not represent herself as knowing the proposition expressed. In each, we are aware, because of how the case is described, that the speaker does not know. But the other conversational participants do not always share this awareness. It is plausible to maintain that the speakers still represent themselves as knowing to the conversational participants.

Maintaining that knowledge representation is still present is strongly supported by the data. The generalizations from §2.3 about what speakers do by using unqualified declaratives still remain true of the declaratives featured in each counterexample. Let's run through them and start with the conversational data. The protagonist in each case could still be met with responses such *How do you know that?* and *I didn't know that* or had their declaration set-up with *Just so I know, p?* or *Do you know whether p?* in the context. Nothing about how the cases are described overwrites the naturalness of these prompts or responses. Consider next the linguistic data. Each of the sentences used is still such it would be Moorean absurd if immediately followed by a denial of speaker knowledge.

- (18) #The guy did not rape her. But I do not know/believe that the guy did not rape her.
- (19) #It is five o'clock. But I do not know/believe that it is five o'clock.
- (20) #The thing to do in the circumstances is to go to war. But I do not know/believe that the thing to do in the circumstances is to go to war.
- (21) #Electrons behave according to the Bohr model. But I do not know/believe that electrons behave according to the Bohr model.

It is not as if *I know* can suddenly be used parenthetically to change the strength with which the proposition is presented either. Such linguistic facts remain stable. Finally, some of the normative data remains the same. Though intuitions of wrongdoing are

absent for some who consider the putative counterexamples, the amount of responsibility or commitment associated with an unqualified declarative as opposed to a qualified declarative remains the same. Since KRH explains why such generalizations are true of the declarations in the cases, the data confirms that KRH is true in the cases. Knowledge representation still happens.

So what do the counterexamples show about KRH? In §2.2 and §2.3.3, I relied on a simple theory of propriety wherein the use of an unqualified declarative is proper if and only if the speaker knows what she said. We can divvy that simple theory into two conditions.

SIMPLE NECESSITY

If the speaker accurately represents herself as knowing, her declaration is proper.

SIMPLE SUFFICIENCY

If the speaker's declaration is proper, she accurately represents herself as knowing.

The counterexamples show only that the simple sufficiency condition is false. There is more to propriety than accurately representing one's position. But the simple necessity condition is unaffected. Put in terms of misrepresentation, impropriety still guarantees misrepresentation of the speaker's epistemic position even though misrepresentation does not likewise guarantee impropriety.

The counterexamples show that propriety is more complicated than the simple theory allows. But their significance is even more constrained. They all occur in contexts where this is false.

NORMALCY CONDITION

In using an unqualified declarative, a native speaker is rationally responding to her available evidence and presenting a proposition in an ordinary context where there is no special incentive to misrepresent her epistemic position to others.

None of the conversational, linguistic, or normative data canvassed required us to

stipulate anything about the speaker or the context in which she was using a declarative. An arbitrary use of a declarative by a speaker would display what needed explanation. Not so for the counterexamples. Consider each variety. Selfless assertions require a speaker to not respond rationally to their evidence by cultivating the appropriate doxastic response. In *RACIST JUROR*, Martin does not know what he asserts because he does not believe it; he does not believe it because his racial prejudice prevents him from being rational. Existential assertions violate the normalcy condition in a different way. The reason Marc knows that a sentence expresses a true proposition but does not know the proposition expressed in *TELLING THE TIME* is that he does not natively speak the language. Finally, delicate and distal assertions both take place in non-ordinary conversations. Jenny's assertion in *PHYSICS TEACHER*, for example, occurs in a pedagogical setting where extremely complicated material is being taught to young minds and the teacher has a special incentive to misrepresent her position to simplify her instruction to the students.

So simple sufficiency is not usually false. On the contrary, the condition is often predictive of propriety in normal situations. So the counterexamples show only that the relation between knowledge representation and propriety is especially complicated in deviant settings where the speaker is irrational, ignorant, or compelled to deceive for non-malicious reasons. To handle deviance, a complete account of KRH has to be supplemented with a broader theory of normativity. But the need for supplementation should come as no surprise. A theory of assertion explains what speakers typically do by using a declarative in a context. It is not a theory of normativity nor even a theory of speech act normativity.

The alternative approach is to theorize from deviance. Instead of developing an explanation sensitive to what most of the declarative data confirms all of the time (and what all of the declarative data confirms most of the time), an explanation is developed that is highly sensitive to what some of the normative data shows some of the time. Such a route is taken by the authors mentioned in §2.4.1. The problem, of course, with the alternative approach is that it fails to yield a theory with complete explanatory coverage. The norm-based theories these authors propose fail, as discussed in §2.2.3,

to accommodate KRH.

2.5 Conclusion

We have now seen that KRH explains all of the declarative data and that it is not threatened by the deviant data that is regarded by some as a counterexample to the knowledge norm. Accordingly, let's revisit the two methodological questions about assertion that we initially opened the chapter with.

The first question was NQ, the necessity question. A question this chapter leaves open is how best to develop KRH. But its explanatory prowess enables a conditional answer to NQ. Recalling the locutionary/illocutionary distinction, assertion is indispensable if knowledge representation is an illocutionary effect. It follows that extant defenses of eliminating assertion are not enough. Cappelen (2011) defends what he calls the NO-ASSERTION VIEW.¹² What Cappelen does not do is provide an explanation of KRH where it is a locutionary effect. As a result, the explanatory power of KRH militates against the no-assertion view. Insofar as a theory of assertion is required to fill-out KRH, assertion is still a category needed to explain knowledge representation as a component of linguistic communication.

With regards to the kind question or KQ, we saw that many theories can accommodate KRH. As a result, we cannot choose a theory on the basis that it accounts for all of the declarative data. Too many theories do that either directly by having knowledge representation be essential to assertion or indirectly by having knowledge representation be a side effect of assertion. To illustrate, the most common way KRH is accommodated is with the knowledge norm. Much of the data from §2.3 that was not presented there for the first time was initially presented as data for which the knowledge norm

¹²Cappelen motivates the no-assertion view in three distinct ways: by objecting to normative theories of assertion like the knowledge norm, by arguing that some of the data is not as uniform as it appears to be, and by presenting data that is very puzzling if there were a speech act of assertion. Few of these motivations militate against KRH. Problems with normative theories are problems with a particular way of accommodating KRH as opposed to KRH. As argued in §2.2.1-1.2.2, KRH can be accommodated in many ways. The data he suggests is non-uniform is notably normative. He observes in line with the deviant data that there is variation in what is and is not proper. But as I argued in §2.4.2, the deviant data does not imperil KRH. For replies to particular arguments of Cappelen's, see Montgomery (2014), Goldberg (2015), and Benton (2016b).

is well-suited to explain (*e.g.* prompts, challenges, parenthetical *knows*, lottery assertions). But the data itself does not discriminate between a norm-based theory like KN or other approaches to accommodating KRH.

Where does that leave those who answer NQ positively? The explanatory theories each have a way of associating assertion with speaker knowledge, but they still differ in how they explain that association. Differences such as these provide opportunity for theory choice. For example, Stalnaker (1978, 2002, 2014) has a theory where an assertion is a proposal to update the common ground. That theory qualifies as positional because the common ground is the set of propositions that are mutually believed or known by the participants. But one may believe that common knowledge is impossible as Lederman (2018a,b) has argued. That impossibility would be a reason to favor a theory of assertion which does not rely upon common knowledge. Another example is a norm-based theory of assertion like KN. When Williamson (2000) proposed that knowledge was the norm of assertion, he regarded it as a constitutive norm. Others have affirmed that constitutivity even if they deny that knowledge is the associated position. But Kelp and Simion (2018) argue that the norm cannot be constitutive. If they are correct, their arguments provide a basis for choosing theories that do not posit a constitutive norm.

Chapter 3

Knowledge representation

3.1 Introduction

A use of an unqualified declarative sentence in a context has two effects: it expresses a proposition and represents the speaker as knowing that proposition. To explain these effects, tradition divides to conquer. The first is regarded as semantic and explained with a theory of meaning. However, the second effect is regarded as non-semantic and explained with a theory of assertion.

This chapter breaks with tradition by offering a semantic explanation of knowledge representation. I call my proposal PARENTHETICALISM because knowledge representation is explained as the effect of a covert parenthetical verb. On the view to be defended, most unqualified declaratives like (22) have the same logical form as qualified declaratives like (23).

(22) Whiz DJ'ed.

(23) Whiz DJ'ed, I know.

Parentheticalism takes the parallels between qualified and unqualified declaratives seriously. A qualified declarative like *Whiz DJ'ed, I think* represents the speaker as thinking that Whiz DJ'ed because that is the semantic contribution of the parenthetical in a context. Knowledge representation is not any different. Most unqualified declaratives represent the speaker as knowing because that is the semantic contribution in a context of a covert parenthetical *I know*.

Parentheticalism renders the act-type of assertion explanatorily idle. No longer does a theory of action need to pick up the slack left by semantics because no slack is left. Both effects of a declarative in a context fall within the purview of meaning

and both can receive a satisfactory semantics. Since knowledge representation is what assertion needed to explain, parentheticalism enables us to conclude with Cappelen (2011, 21) that “‘assertion’ . . . is not a category we need in order to explain any significant component of our linguistic practice.”

In contrast to other attempts to trace assertoric force back to a declarative’s logical form, parentheticalism does not source it in the declarative mood. It is not thereby committed to every apparently unqualified declarative representing the speaker as knowing like mood-based explanations are committed. Room is made for a three-fold classification of declaratives: unqualified, overtly qualified, and covertly qualified. The difference between unqualified and covertly qualified is subtle because they appear the same in writing and sound the same in speech. But the difference enables smooth navigation through the difficulties posed by embedded declaratives with which mood-based explanations struggle.

My defense of parentheticalism unfolds over nine sections. I start in §3.2 by distinguishing the declarative sentence as a clause type to set the stage for later discussion. Then §3.3 provides fresh perspective on linguistic practice by discussing evidentiality as a grammatical category found in a quarter of the world’s natural languages but not found in English. I argue that parenthetical verbs are how English compensates for its lack of grammaticized evidentials. Though not strictly evidentials, parentheticals make an analogous semantic contribution.

Then I circle back to knowledge representation. Parentheticalism is detailed in §3.4. A compositional semantics for parentheticals modeled on evidentials is given after that in §3.5. Its hallmark is its multidimensionality: a sentence in a context has a truth-conditional meaning and a use-conditional meaning *à la* Kaplan (1999). Whether overt or covert, parentheticals contribute only to use-conditional meaning by representing what epistemic position the speaker takes towards the proposition that is the sentence’s truth-conditional meaning. In §3.6, I elaborate how parentheticalism explains the declarative data. I discuss in §3.7 how parentheticalism implemented in a

multidimensional semantics solves the traditional problems that face semantic explanation. An objection that my proposal is too narrow to show that assertion is eliminable from explaining linguistic practice in English is considered in §3.8. I conclude in §3.9. A formal appendix using the multidimensional semantics of Gutzmann (2015) is provided in §3.10.

3.2 The declarative clause

Let's begin by taking a closer look at the declarative clause type. Whatever the type, sentences have a predicate structure. The words and phrases that compose a sentence contribute either predicates, arguments, or operators on predicates and/or arguments. Which predicates meet which arguments in a sentence is determined by its syntax. Most sentences have the same skeletal syntax. Simplifying, the syntax of a sentence has at least three layers that peel back.¹

The bottom layer is where the verb phrase lives. The verb phrase contains a determiner phrase and a verb. As a result, the phrase contributes a subject and predicate. Above it sits a tense phrase. What it contributes to the logical form is a point of controversy. On the classic view of tense owed to Prior (1967), tense contributes an operator that specifies the time at which the subject of the phrase satisfies the predicate of the verb. But tense can also be viewed as contributing a time directly to the logical form. On this view, the predicate contributed by the verb requires an extra argument for a time. Tense supplies that argument for the predicate. Atop the tense phrase sits what is dramatically called the *LEFT PERIPHERY* by Rizzi (1997), but which is also sometimes called the *COMPLEMENTIZER SYSTEM*. It hosts various elements that contribute to the meaning of a sentence. Often these elements take the form of operators on the semantic value of the underlying tense phrase.

With that syntax in view, I make two observations. A tense phrase is what has a proposition for its meaning in a context. Drawing upon arguments in van Elswyk

¹The simplified syntax being used omits projections not relevant to the paper's purpose. See Chomsky (1995), Rizzi (1997), and Cinque (1999) for a fuller perspective. I gradually complicate the syntax over the paper.

(2018), we can witness this through two facts. A proposition is a representation of an object being a certain way at a world and time. But few phrases are rich enough to have a proposition for a meaning. A noun phrase like *Whiz* is not enough. There needs to be a bigger phrase containing a predicate to describe *Whiz* as being a certain way. Just having an object and a predicate in the structure is not enough either. Consider (24) and (25).

(24) #*Whiz DJ*.

(25) *I saw Whiz DJ*.

The former is what is known as a SMALL CLAUSE from Williams (1975). It is built out of the noun *Whiz* and the verb *DJ*. As a result, the predicate structure of (24) contains a predicate and an argument that is contributed by each expression in the small clause. But a small clause cannot be used to convey a proposition. Uttered in its present form, (24) is terrible. More argument structure is required. What is missing is specification of the time at which the object has a property. To that end, compare the earlier (24) with sentence (26).

(26) *Whiz DJ'ed*.

A key difference between (24) and (26) is the presence of tense as indicated by the morpheme *-ed* on the verb *DJ*. That structural difference is enough. (28) goes down smoothly because it supplies a proposition.

Further evidence is found in the anaphoric expressions which a tense phrase licenses the use of in a context. PROPOSITIONAL ANAPHORS are expressions that denote a prominent proposition in a context like postverbal *so* and the response markers *yes* and *no*. Building on Krifka (2013), data is presented by van Elswyk (2018) motivating that tense phrases license propositional anaphors. That is of special interest because declaratives are not the only clause types containing a tense phrase. Polar interrogatives contain them too.

(27) (A) *Did Whiz DJ?*

(B) *Yes / no / If so, then he must have been invited.*

(28) (A) Whiz DJ'ed.

(B) Yes / no / If so, then he must have been invited.

The examples above show exactly that. The polar interrogative in (27A) and the declarative in (28A) both license the propositional anaphors in a context by virtue of containing a tense phrase inside of their syntax.²

We turn next to the second observation. Sentences sort into clausal types. Every natural language has at least these three: declarative, interrogative, and imperative.³ Clauses are syntactic units bigger than phrases that can either be independent as standalone sentences or dependent as constituents of another clause. Morphosyntax is what distinguishes them.⁴ We can tell which ones are which because of the morphemes they contain and how the syntax assembles them. The declarative clause, in particular, exhibits considerable cross-linguistic variation in how it is individuated. Some languages, like Korean, mark a clause as declarative with a dedicated particle that occupies a sentence-final position (Pak, 2008). English appears to mark its declarative *via negativa*: it lacks distinguishing features of interrogatives like subject-auxiliary inversion and *wh*-expressions and distinguishing features of imperatives like a null or missing subject. Still, we can theorize about what sentences have in common by hypothesizing that there is a dedicated MOOD MORPHEME that appears in every sentence to mark it as declarative. Those morphemes are overt in languages like Korean but apparently covert in English and its relatives.

The place to slot these morphemes into a sentence is somewhere in the left periphery. Such a choice accords with the description of the left periphery by Rizzi (1997, 283) as “the interface between a propositional content (expressed by the [TP]) and the superordinate structure (a higher clause or, possibly, the articulation of discourse, if

²Constituent interrogatives also contain tense phrases, but they do not license propositional anaphors. The reason is that the tense phrase in a constituent question does not have a proposition for its meaning because it contains a *wh*-expression. See van Elswyk (2018).

³Consult Sadock and Zwicky (1985), König and Siemund (2007), and Siemund (2018) for discussion.

⁴See Portner (2018) and Siemund (2018) for recent discussion. A consequence of this approach to clause individuation is that intonation is inessential to clause type. Its contribution is in addition to that of a clause type.

we consider a root clause).” It also enables an elegant explanation for how polar interrogatives and declaratives can contain the same thought as Frege (1918/1956) noted. A polar interrogative, but not a declarative, hosts an operator in its left periphery that converts the proposition of the tense phrase into something else that is not evaluable for truth or falsity because it is not a representation of an object being a certain way. With the assumption from Hamblin (1973) that interrogatives have sets of propositions for their semantic value, we can give a polar interrogative an operator meaning like (29) found below.

$$(29) \llbracket \mathcal{Q} \rrbracket^{c,w} = \lambda p. \{p, \neg p\}$$

That \mathcal{Q} -operator is a simple function that composes with the proposition provided by the tense phrase to form a set of propositions consisting of that proposition and its negation. What of a declarative?

$$(30) \llbracket \mathcal{D} \rrbracket^{c,w} = \lambda p. p$$

To situate the traditional assumption that a proposition is the meaning of a declarative in a context against the backdrop of our two observations, we arrive at the entry in (30). A declarative clause contains a covert or overt morpheme in the left periphery contributing the \mathcal{D} -operator. The meaning of such an operator barely deserves the name *operator*—it is a vacuous identity function.

The preceding discussion allows us to draw two conclusions about the two effects of a declarative in a context. The first effect—expressing a proposition—is had by a declarative because a proposition is the semantic value of a tense phrase and its mood morpheme \mathcal{D} does not alter that semantic value like \mathcal{Q} does in a polar interrogative. The second conclusion concerns the limits on a semantic explanation of the second effect. To trace knowledge representation back to something in the predicate structure of a declarative clause, only two options are available. Either the mood morpheme \mathcal{D} is the source of knowledge representation or another element in the left periphery is the source.

3.3 Finding perspective

Some natural languages differ grammatically from English in ways unrelated to what speakers do with their sentences. However, some underlying grammatical differences are significant to action. The differences I discuss in this section concern EVIDENTIALITY. In §3.3.1, I introduce and explain evidentiality as a grammatical category. Then in §3.3.2 I argue that parenthetical verbs like *Whiz DJ'ed, I think* enables English to mimic the effects of evidentiality.

3.3.1 Evidentiality

The most basic unit of meaning in a sentence is a morpheme. Some morphemes are words, some are not. The English word *impossible*, to illustrate, consists of two morphemes: the word *possible* and the prefix *-im*. Evidentials are morphemes that specify a source of evidence. Consider an example in Cheyenne with an English translation from Murray (2010, 46).

- (31) É-némene-**séstse** Sandy.
Sandy sang, I hear(d).

The evidential in the Cheyenne declarative sentence is *séstse*. It appears as a suffix on the verb for singing. What it specifies is that the speaker of (31) has hearsay evidence for the proposition that Sandy sang.

Importantly, not all expressions about evidence source are evidentials. Though presumably all languages have expressions about evidence, languages only have evidentials when their grammar contains a closed-class set of dedicated morphemes, which are hosted in the left periphery, for specifying evidence source.⁵ For example, English has adverbs like *allegedly*, but such expressions are not evidentials in the strict

⁵I base this characterization on the taxonomic and typological work of Cinque (1999), Aikhenvald (2004), and Speas (2008). Sometimes English is treated as having evidentials or expressions with evidential elements. For example, von Stechow and Gillies (2010) maintain that *must* encodes indirectness like an evidential. The characterization of evidentiality they assume does not limit the category to a closed-class of typically verbal morphemes. Shortly, I argue that English recruits parenthetical verbs to play an evidential-like role in communication. The related explanation of *must* is that it also plays an evidential-like role.

sense like Cheyenne verbal suffixes are. An apt parallel is tense. Though presumably all languages have expressions to specify the time at which the event described by a verb occurs, not all languages contain tense. English has a closed-class set of verbal morphemes, but Chinese does not.

That evidentials belong to a grammatical category is significant. Morphemes belonging to a grammatical category can sometimes be obligatory. Consider tense again. Declaratives are ungrammatical in English without a tense morpheme specifying the time at which the verb's event occurs. Compare *Whiz DJ* and *Whiz DJ'ed*. The first is uninterpretable but the second is interpretable because it contains an obligatory tense morpheme in the form of *-ed*. In some languages with evidentiality, a declarative is similarly ungrammatical when it lacks an evidential. As Aikhenvald (2004, 1-2) notes:

Tariana, an Arawak language spoken in the multilingual area of the Vaupé's in northwest Amazonia, has an even more complex system. In this language, one cannot simply say 'José played football'. Just like in all other indigenous languages from the same area, speakers have to specify whether they saw the event happen, or heard it, or know about it because somebody else told them, etc. This is achieved through a set of evidential markers fused with tense. Omitting an evidential results in an ungrammatical and highly unnatural sentence.

Such a surprising feature of evidentiality merits repeating: every use of a declarative in a language with grammatically obligatory evidentials carries information about the speaker's source of evidence for the proposition.

But how does a declarative with an evidential convey the speaker's evidence source? Taking the tense parallel too seriously tempts the conclusion that languages with obligatory evidentials limit speakers to only talking about their evidence sources. Tense places limits on what can be said after all. But evidentials are different. A use of a declarative in a context can express many propositions because of the expressions it contains. An expressed proposition is AT-ISSUE when it is the sentence's main point or primary contribution. Being at-issue contrasts with being NOT-AT-ISSUE which is the status content has when it is still expressed but backgrounded. Examples of not-at-issue content include presuppositions triggered by verbs like *stopped* and conventional implicatures conveyed by expressions like *therefore*.⁶ Evidentials are similar in

⁶Potts (2004), Tonhauser et al. (2013) and Horn (2016) provide taxonomies of not-at-issue content. See

that they contribute not-at-issue content distinct from that expressed by the declarative's main clause.⁷ Consider example (31) again. It expresses two propositions: that Sandy sang (the declarative's propositional contribution), and that the speaker heard that Sandy sang (the evidential's contribution).

To illustrate, I use a diagnostic from Tonhauser (2012). On the assumption that at-issue content alone is available for propositional anaphora, anaphoric expressions can be used to diagnose issuehood based on what is felicitously targeted. Evidentials test positive for not-at-issue status. Korotkova (2016, 66) observes that "Based on the data from available studies of evidentiality. . . the non-challengeability of the [evidential's contribution] is a *universal* property of morphological evidentials." The only proposition targetable is the one contributed by the main clause. Here are examples in Cuzco Quechua from Faller (2006, 157-158) where *that* is used anaphorically to target different propositions with varying success.

(32) Ines-qa qaynunchay ñaña-**n**-ta-s watuku-sqa.

AT-ISSUE: Inés visited her sister today.

NOT-AT-ISSUE: Speaker was told that Inés visited her sister today.

(33) Mana-**n** chiqaq-chu. Manta-**n**-ta-lla-**n** watuku-rqa-**n**.

That's not true. She only visited her mother.

(34) Mana-**n** chiqaq-chu. #Mana-**n** chay-ta willa-rqa-sunki-chu.

That's not true. #You were not told this.

(33) and (34) are replies to (32) above. The reply in (33) is acceptable. *That* targets the at-issue proposition while the speaker disagrees that Inés visited her sister. In contrast, (34) is not acceptable because it attempts to target the not-at-issue proposition to disagree that the speaker heard as much.

Evidentials are categorized according to whether they specify that the speaker has direct or indirect evidence for the at-issue proposition. Direct evidentials specify that

Simons et al. (2010), Murray (2014), Syrett and Koev (2015), Hunter and Asher (2016), and Frazier et al. (2018) for theories of the (not-)at-issue distinction.

⁷ See Murray (2014, 2017), Izvorski (1997), Faller (2002), Matthewson et al. (2007), and Krawczyk (2009).

the speaker has perceptual evidence (*e.g.* sight, sound) while indirect evidentials specify that the speaker's evidence is mediated (*e.g.* inference, hearsay). Variation is found in the number of evidentials a language has and which sources receive a dedicated evidential (Willett, 1988; Aikhenvald, 2004). Some like Cherokee only have evidentials coarsely marking whether the source is direct or indirect (Pulte, 1985). Others have a more fine-grained system. Tariana has direct evidentials for information sourced visually or non-visually and indirect evidentials for information that was inferred, assumed, or reported (Aikhenvald, 2004).

Speakers of many languages with evidentials consider some sources to be weaker or less reliable than others. As Givón (2005, 169) puts it, “evidential markers code primarily the evidential source that can back up an assertion and... indirectly, the strength or reliability of that evidence.”⁸ To explain speaker judgments about reliability strength, scales like Figure 3.1 are frequently found in the linguistics literature on evidentiality.⁹

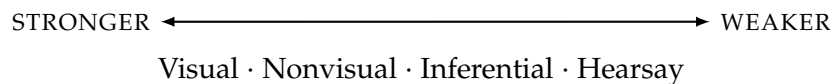


Figure 3.1: Evidential strength

Fundamental facts about the nature of evidence may not be reflected in Figure 3.1. That is for the epistemologists to settle.¹⁰ However, what Figure 3.1 does reflect is that an evidential can determine the strength with which the at-issue proposition is recommended by a speaker. Here is an illustration. Perception licenses the use of both a direct evidential and an inferential evidential because a speaker can draw inferences

⁸It is an open question generally how evidentials are associated with judgments about the reliability of an evidence source. For various perspectives on this issue, consult Faller (2012), Krawczyk (2009), Davis et al. (2007), Northrup (2014), McCready and Ogata (2007), McCready (2015), and Murray (2017).

⁹See Givón (1982, 2005), Barnes (1984), Willett (1988), Chafe and Nichols (1996), Faller (2002, 2012), and Davis et al. (2007) for scales and discussion about scales.

¹⁰The conjunction of foundationalism and internalism yields the conclusion that perceptual evidence is superior (Huemer, 2001). For some like McDowell (2011), internalism is enough if paired with the view that perception provides indefeasible evidence. See also Pryor (2000, 2004) for a defense of dogmatism about perceptual evidence. Those endorsing process reliabilism *à la* Goldman (1979) will deny many of the foundationalist/internalist reasons for privileging perception. But process reliabilism still leaves room for the superiority of perceptual evidence if it has more epistemic force than other sources of evidence (Schellenberg, 2013, 2016).

about her experience. In choosing which to use, speakers often base their selection based on how forcefully they want to stand behind the at-issue proposition. A speaker choosing to stand behind a proposition less uses an inferential evidential. Otherwise, she uses a perceptual evidential.

We can observe the difference that evidentials make to strength by considering what happens when a speaker follows a declarative with a disavowal of belief in the at-issue proposition expressed. In English, disavowing belief in the at-issue proposition of an unqualified declarative produces Moorean absurdity. Declaratives with evidentials specifying a source considered strong are similarly infelicitous. Surveying existing fieldwork, Murray (2017) notes that no known direct or inferential evidential is compatible with a disavowal. However, evidentials specifying a source that is considered weaker than either can be followed by a disavowal that is fully felicitous. Hearsay evidentials are a prime example. Below is a disavowal in Cuzco Quechua from Faller (2002, 194).

(35) Para-sha-n-si, ichaqa mana crei-ni-chu.

It is raining (I heard), but I don't believe it.

The speaker in (35) presents the at-issue proposition that it is raining and specifies that her evidence is hearsay. Then she immediately states without infelicity that she does not believe what she overheard.

A final feature of evidentials to mention is their interaction with mood. Unsurprisingly, every known language with evidentials hosts them in independent declaratives.¹¹ My examples have showcased them in that position. In some languages like Hidatsa, they can only appear in independent declaratives where they are obligatory. From these considerations, Sadock and Zwicky (1985, 168) regard Hidatsa evidentials

¹¹Variation is found in whether they appear in dependent declaratives or a clause type other than declarative. Many languages allow evidentials in interrogatives, but bar them from imperatives. Within a declarative, further embedding differences are encountered. Murray (2017) notes that evidentials always take wide-scope with respect to negation, but that there is variation in how they interact with tense, modals, and conditionals. Some scope over tense and modals, some do not. Some cannot occur in the antecedent of conditionals, some can live there.

as marking a subtype of declarative mood. So evidentiality and mood can be understood as fused grammatical categories in Hidatsa. However, fusing with the declarative mood is not a universal feature of evidentials. In the quote above, Aikhenvald (2004) notes that evidentiality is fused with tense in Tariana. Evidentiality may be a distinct category as well.

3.3.2 Without evidentiality

Evidentials are not in the grammar of English. It lacks the requisite closed-class set of morphemes. However, that does not mean that speakers do not comment on their epistemic position. Consider tense as a parallel again. Chinese speakers do not lack a need to talk about the times at which events occur. Other parts of the language just pick up the slack left by not having tense.

Declaratives in English are UNQUALIFIED or QUALIFIED. As seen throughout §2, the use of an unqualified represents the speaker as knowing the at-issue proposition. Speakers wanting to represent a position other than knowledge have to qualify by using epistemic vocabulary. I continue to illustrate qualification with parenthetical verbs like *I think*.¹²

(36) Whiz DJ'ed.

(37) Whiz DJ'ed, I think.

My proposal is that parentheticals are expressions that pick up the slack in English left by not having grammaticalized evidentials.¹³ To defend that proposal, I show in this section that parentheticals behave like evidentials in taking wide-scope to contribute

¹²Unsurprisingly, parenthetical verbs are widely regarded as illocutionary force modifiers. As Urmson (1952, 484) puts it: “the whole point of some parenthetical verbs is to modify or to weaken the claim to truth which would be implied by a simple assertion *p*.” Hand (1993, 496) describes them as “embeddings in which the complement carries the illocutionary force of the utterance and the matrix. . . merely ‘fine-tunes’ this force.” See also Wilson (1975), Mackenzie (1987), Recanati (1987), Blakemore (1990), and Ifantidou (1993).

¹³Such a proposal is not a new one in the relevant linguistics literature. Among others, the evidential-like behavior of parenthetical verbs is noted by Ifantidou (1993), Rooryck (2001a,b), Simons (2007), and Murray (2017).

a separate not-at-issue proposition that influences the strength with which a speaker recommends the at-issue proposition.

I provide two reasons, drawn from the same diagnostics used for evidentials. why parentheticals contribute a not-at-issue proposition. The first diagnostic used propositional anaphora to see what can be felicitously targeted. If only one at-issue proposition about the speaker's epistemic position is expressed by a declarative with a parenthetical, only that proposition should be available to subsequent anaphors. But that is not the case.

(38) (A) Whiz DJ'ed, I think.

(B) That's false. (#You don't.)

(39) (A) Whiz DJ'ed, I think.

(B) I don't think so. (#You don't.)

(38) and (39) show that the preferred interpretation of each anaphor is where they denote the proposition that Whiz DJ'ed as opposed to the proposition that the speaker thinks that Whiz DJ'ed. That is why it is infelicitous to elaborate upon what is conveyed by (38B) and (39B) by following with *You don't*. That elaboration is felicitous only if the propositional anaphors in (38B) and (39B) denote the proposition about the speaker's position. These discourses compel the conclusion that two propositions are expressed by declaratives with parentheticals and that the at-issue proposition is expressed by the subordinate clause.

If a parenthetical contributes a second proposition distinct from the at-issue proposition expressed by the main clause of the declarative, Tonhauser (2012) notes that the proposition should project. A proposition projects if and only if the proposition is still conveyed by the use of a sentence even when the expression contributing the proposition appears under the syntactic scope of an operator that stops entailments. Projectability is standardly diagnosed by putting the relevant expression under the scope of negation or modal expressions like *it is possible that* because these expressions blocks entailments.¹⁴ For example, consider the appositive clause *who is a promoter* in

¹⁴See Karttunen (1973) and Chierchia and McConnell-Ginet (2000). Projectability is also diagnosed by

(40) and (41).

(40) It is false that Whiz, who is a promoter, DJ'ed.

(41) It is possible (that) Whiz, who is a promoter, DJ'ed.

The appositive contributes the proposition that Whiz is a promoter and that proposition projects. It is conveyed by (40) and (41) even though it appears under the scope of entailment-canceling operators. The proposition contributed by a parenthetical similarly projects.

(42) (A) It is false (that) I think that Whiz DJ'ed.

(B) It is false, I think, that Whiz DJ'ed.

(43) (A) It is possible (that) I think that Whiz DJ'ed.

(B) It is possible, I think, that Whiz DJ'ed.

For comparison, the first sentence in each pair contains a canonical use of a subject and attitude while the second contains a parenthetical use. Zoom into (42). The *It is false that* in sentence (42A) predicates falsity of a proposition to which *I think* is the subject and verb. (42B) is noticeably different. What is claimed to be false has nothing to do with what the speaker thinks. That Whiz DJ'ed is claimed to be false. What explains this difference is that the parenthetical in (42B) contributes a not-at-issue proposition that projects past *It is false that*. (43B) similarly differs from (43A) because the parenthetical contributes a not-at-issue proposition.

The data in (42B) and (43B) serves double-duty. It evinces not-at-issue status by showing parentheticals projecting out of the scope of entailment-canceling operators, but it also shows the parentheticals taking wide-scope with respect to the other operators. The natural interpretation of the parenthetical in (42B) is that the speaker thinks that it is false that Whiz DJ'ed. Likewise, the interpretation of the parenthetical in (43B) is that the speaker thinks it is possible that Whiz DJ'ed. Such interpretations are

placing the content-conveying expressions in questions and the antecedents of conditionals. But parentheticals like *I heard* or *I'm certain* are infelicitous in questions and dispreferred in conditionals as I discuss later.

only accessible if the parenthetical takes wide-scope with respect to negation in (42B) and modality in (43B). In this way, parentheticals mirror known behavior of evidentials. According to Murray (2017), evidentials always take wide-scope with respect to negation and modality in existing fieldwork.

What remains to be seen is that parentheticals make a difference to how strongly a speaker recommends the at-issue proposition. Intuition about the comparative meanings of attitude verbs readily confirms. Parenthetical self-ascriptions of certainty are stronger than unqualified declaratives, which are stronger than parentheticals that ascribe thought or hearsay. Where \mathcal{D} represents the speaker knowledge associated with an unqualified declarative, we arrive at a scale not unlike the one in Figure 3.2 for evidentials.

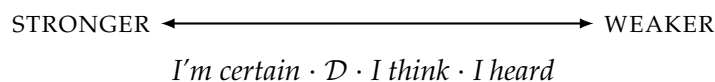


Figure 3.2: Parenthetical strength

Further evidence for a scale like Figure 3.2 is found in how the declaratives interact differently with a subsequent disavowal of belief in the at-issue proposition. Compare the conjunctions (44) through (47) below. On the first pass, ignore the adverb *fully* in parentheses. The result: (44), (45), and (46) are Moorean absurd. However, (47) is not defective.

(44) #Whiz DJ'ed, I'm certain. But I don't #(fully) believe that.

(45) #Whiz DJ'ed. But I don't #(fully) believe that.

(46) #Whiz DJ'ed, I think. But I don't (fully) believe that.

(47) Whiz DJ'ed, I heard. But I don't (fully) believe that.

Consider the four sentences again, but now include *fully* in your second pass at interpretation. The result: (44), (45), and (47) do not change in their acceptability, but (46) becomes felicitous. This reveals that the epistemic position conveyed by *I think* is weaker than \mathcal{D} and stronger than *I heard*.

The semantic behavior of English parentheticals justifies the choice to analyze them

as evidential-like elements. Syntactically, evidentials are inhabitants of the left periphery. I follow Rooryck (2001a,b) to think that parentheticals occupy the same projection that sits above the tense phrase to ensure wide-scope. As for their semantics, what works for evidentials should work for parentheticals *modulo* the differences. I confirm that suspicion in §3.5 when I offer a semantics for parentheticals modeled on evidentials.

3.4 English in perspective

I defended in §2 that knowledge is the position that the use of an unqualified declarative represents in a context.

KNOWLEDGE REPRESENTATION HYPOTHESIS (KRH)

For a speaker S and unqualified declarative sentence d expressing an at-issue proposition p in a context c , S 's use of d in c represent S as knowing p in c .

But what is the source or cause of knowledge representation in the use of an unqualified declarative? The traditional answer is committed to an asymmetry.¹⁵ Though qualified declaratives specify the position occupied by the speaker through epistemic expressions like parentheticals, an unqualified declarative does not. It requires supplementation from a theory of action to explain how it is that the speaker is represented as knowing the at-issue proposition.

Favoring a symmetric approach wherein unqualified and qualified declaratives are explained alike, I propose that an unqualified declarative represents the speaker in context as knowing the at-issue proposition because it contains an *I know* parenthetical specifying as much. The difference from a qualified declarative is that the parenthetical is almost always covert; otherwise, position representation in English is uniformly

¹⁵Asymmetry is avoided by positing an act-type for each qualified declarative. For example, *Whiz DJ'ed, I guess* tokens an act of guessing. But then position representation for qualified declarative is explained redundantly. It is owed to the semantic contribution of the parenthetical in a context and the act-type.

explained as the product of not-at-issue content. As broadcast at the start of chapter, I call this proposal PARENTHETICALISM.

Parentheticals kick up a cloud of tricky questions at the syntax-semantics interface. I have committed to saying they reside in the left periphery like evidentials. But where exactly? The periphery is hypothesized to have many different projections (Cinque, 1999). The data of §3.3.2 showed that parentheticals contribute a separate not-at-issue proposition in a context. Yet how are we to model this in a compositional semantics? I answer some but not all of these questions.

Parentheticalism is neutral on how best to understand the syntax of parentheticals.¹⁶ Covert *I know* has whatever syntax overt parentheticals like *I think* have. It is also silent on their compositional semantics. The way in which *I think* contributes to the meaning of a sentence is the same way *I know* contributes though it is in hiding. In other words, my proposal—to borrow a term from Fara (2015)—piggybacks. Assessing it does not require us to have a full picture of the syntax and semantics of English parentheticals. My view only requires us to know enough about parentheticals to understand its commitments as an account of how unqualified declaratives represent the speaker as knowing in a language like English.

So though I offer a new semantics for parentheticals in §3.5, I do not proffer answers for all of the questions that parentheticals raise generally. I stick to the questions raised exclusively by the parenthetical explanation of KRH. This section is dedicated to those questions. I start by saying in §3.4.1 what I mean by maintaining that *I know* is covert. Then I discuss in §3.4.2 how parentheticalism helps us understand the rare cases in which *I know* is overt. Finally, §3.4.3 discusses which apparently unqualified declaratives are ones that represent the speaker as knowing the at-issue proposition in a context.

¹⁶See Ross (1973), Hooper and Thompson (1973), Thompson and Mulac (1991), Huddleston and Pullum (2002), Rooryck (2001a,b), Heycock (2006), de Vries (2007), Giorgi (2010), Brinton (2010), and Hedberg and Elouazizi (2015) for discussion of related syntactic issues. Of these, Rooryck (2001a,b), Giorgi (2010), and Hedberg and Elouazizi (2015) defend proposals where their syntax is evidential-like. The parenthetical verbs I dwell on importantly differ from *as*-parentheticals like *Whiz DJ'ed, as you know*. Among others, see Potts (2002) for the syntax of *as*-parentheticals. Green (2000) draws different conclusions about the embedding of parentheticals than I draw in §3.4.3, but that is because he runs roughshod over this difference.

3.4.1 Covert *I know*

The evidence that *I know* is covertly present to express a not-at-issue proposition is surprisingly easy to find. That it is covert is verified with our eyes and ears: we do not see or hear the parenthetical verb in the use of an unqualified declarative. That speaker knowledge is represented is confirmed by the evidence surveyed in §2. Our cup runneth over with evidence that the use of an unqualified declarative represents the speaker as knowing what is said.

But *covert* requires elaboration. The parenthetical explanation is committed to *I know* making a contribution to logical form. It is covert in the sense that is not realized phonologically. But there are two ways that might be. The first is that the parenthetical has undergone SYNTACTIC ELLIPSIS. On this option, *I know* is present in the syntax of the sentence despite not being pronounced. It is elided similar to how the second instance of *DJ* is elided in (48).

(48) Whiz wanted to *DJ* and Riri wanted to $\emptyset J$ too.

The second option is that it is not silently present in the syntax because it is an instance of ZERO or NULL EXPRESSION. Null expression occurs when the semantic value of an expression appears in a sentence's predicate structure even though there is not silent or pronounced expression in the syntax to contribute it. Pronouns, complements, and copula are commonly cited examples as expressions whose meanings can have null expression in a predicate structure.

I favor the latter option with two reasons to compel that preference. The first reason is that ellipsis typically has to be licensed by a prior or antecedent instance of the same expression. Using (48) still as our illustration, the verb *DJ* can be elided in the second conjunct because a pronounced instance of the verb already appear in the first conjunct. Though it is argued that ellipsis need not always be licensed, licensing is still required in normal conditions. Few expressions, if any, are known to undergo ellipsis without typically having an antecedent. As a result, to precisify the hypothesis that *I know* is covert as the hypothesis that it is elided would be a radical departure. It would

be committed to ellipsis when it is almost never licensed. Opting for zero expression avoids this unwarranted commitment.

The second reason concerns the parallelism between evidentials and parentheticals. Languages with grammatically obligatory evidentials frequently use zero expression for one evidential (Aikhenvald, 2004). For example, Murray (2010) reports that the direct evidential is zero in Cheyenne. There is then precedent for zero expression occurring in the position of the left periphery, and I take parentheticals to occupy this position in English. Regarding covert *I know* as zero expression is therefore the natural choice given precedent.

3.4.2 Overt *I know*

Benton (2011, 685) observed that *I know* usually cannot appear in a parenthetical position and be felicitous.

(49) ?Whiz DJ'ed, I know.

There is something amiss about (49). However, *I know* can appear parenthetical and be felicitous in special circumstances. Benton (2011, 685, *fn.2*) further observes that the addition of adverbial modifiers like *now* creates such a circumstance. Unlike (49), (50) is free from defect.

(50) Whiz DJ'ed, I now know.

Blaauw (2012, 106) similarly points out that *I know* can be felicitous if it receives contrastive stress.

John is having a fight with his wife Jill. Apparently, as Jill brings forward repeatedly during their heated conversation, John is very lazy; a point that Jill supports with ample evidence. At one point, exasperated, John asserts,

(51) I am very lazy, *I know*!

Interpreted in the conversation described above, the parenthetical use of *I know* in (51) is felicitous by carrying contrastive stress.

The explanation of this data offered by Benton (2011) appeals to redundancy. The difference between the infelicity of (49) and the felicity of (50) and (51) is that the latter

are non-redundant. In contrast, the first is redundant because the use of an unqualified declarative in a context already represents or expresses that the speaker knows the at-issue proposition by being an assertion. But McKinnon and Turri (2013, 126-127) show that Benton's explanation is incomplete because other parentheticals are felicitously redundant.

(52) Why, I ask, should we do that?

I ask is redundant when (52) is used to ask a question. And yet, no infelicity is produced paralleling what we witnessed in (49).

My diagnosis is that Benton was mistaken to explain redundancy at the level of action. If the hypothesis is that a parenthetical cannot specify what a speech act expresses, the hypothesis is too general. By applying to any act performed with any clause type, it predicts that (52) will be infelicitous when it is not. A natural remedy would be to limit the hypothesis just to assertion, but that remedy is *ad hoc*. The redundancy analysis offered by Benton is perfectly general. It follows from broad considerations about what an act expresses.

Parentheticalism enables a better explanation. To see how, we first take a step back. Most if not all expressions in a language have alternatives that could be used by the speaker instead. Let's call an expression and its alternatives an ALTERNATIVE FAMILY. Within an alternative family, one of the expressions is often—for one reason or another—the default. To economize, that default is often unmarked. For example, *possible* has *impossible* as a lexical alternative and the latter is marked with the morpheme *-im* whereas the former is not. Tense in English provides another example. The verb *dance* is nonpast. To be in the past, it is marked with the morpheme *-d* and appears with the auxiliary *will* to be in the future. It belongs to the alternative family $\langle \textit{dance}, \textit{danced}, \textit{will dance}, \dots \rangle$ where it is unmarked.

On a parenthetical approach to KRH, declaratives belong to an alternative family that differ in what epistemic position is represented by the overt or covert parenthetical. Organized by qualifier, that family is $\langle \textit{I think}, \textit{I guess}, \textit{I believe}, \mathcal{D}, \dots \rangle$ where \mathcal{D} is used to signify an unqualified declarative that hosts a covert *I know*. In this way,

what is proposed continues to parallel known behavior with evidentials. Evidentials comprise their own alternative family and, as I noted in the last section, one of the evidentials is often an unmarked form.

A boring yet important fact about covert elements is that they are difficult to modify. For intonational modification, like contrastive stress, the difficulty is obvious. Modification requires pronunciation and covert elements are unpronounced. Other varieties of modification are not much different. You cannot modify what you cannot see or hear. Accordingly, I propose that *I know* is governed by the following grammatical rule of English.

OVERT-FOR-MODIFICATION RULE (OFM-R)

I know must be covert when in a parenthetical position unless it is modified.

The rule explains the data discussed in this section. Declaratives such as (49) are infelicitous in virtue of breaking the rule. However, declaratives such as (50) and (51) are not infelicitous because they satisfy the exemption for modification. *I know* is modified though a parenthetical in (50) by containing the adverb *now* to emphasize that there was a time that the speaker did not know. Likewise, *I know* is modified though a parenthetical in (51) by receiving stress. What that stress conveys is that the speaker knows in contrast to occupying a weaker position.

A good-making feature of parentheticalism is therefore that it facilitates a better explanation of the distribution of *I know* parentheticals than act-based explanations. An act-based explanation like Benton's overpredicts or is *ad hoc* by being limited without sufficient cause to assertion. But an explanation like the one given is tailored to the data because it starts with the hypothesis that an unqualified declarative contains *I know* covertly.

3.4.3 When and where

At the outset, I advertised that parentheticalism applies to some but not all apparently unqualified declaratives. So which ones host covert parentheticals? Some declaratives can be qualified, some declaratives are in syntactic configurations where they cannot

be. Since parentheticalism maintains that *I know* is parenthetical, it is only committed to the verb being covert in unqualified declaratives within syntactic configurations that already allow parentheticals. That means parentheticalism does not predict that *I know* is covert in every instance of an unqualified declarative. Though overt parentheticals can qualify any independent declarative, we will see that they have a limited distribution in dependent declaratives.

The particular predictions of parentheticalism are therefore highly specific. It predicts that every use of an unqualified declarative that is syntactically independent represents the speaker as knowing, but unqualified declaratives that are dependent represent the speaker as knowing only if qualified declaratives can occupy that dependent position as well. In other words, predictions are limited by the following constraint.

OVERT CONSTRAINT

For any syntactic configuration S , unqualified declarative d , and qualified declarative d' , If d is dependent in S , then d represents the speaker as knowing the at-issue proposition of d if and only if S is still grammatical were d substituted with d' .

The above constraint provides an easy way to discern whether *I know* is hiding in a dependent declarative. If we cannot use a parenthetical like *I think* or *I heard* to qualify the dependent but apparently unqualified declarative, the syntactic configuration is not one that contains *I know* covertly.

To elucidate exactly what parentheticalism is committed to via the overt constraint, I consider a battery of syntactic configurations in which declaratives can appear. Following Murray (2017), who distinguishes as much while discussing evidentials, I distinguish two questions about embedded parentheticals: whether the parenthetical can syntactically embed in a particular position and whether the parenthetical is interpreted in that position if it can embed.

I begin with conditionals. Conditionals provide two options for syntactic embedding. Either they embed in the antecedent or the consequent. The contrast between

(53) and (54) shows that a parenthetical cannot embed in the antecedent of a conditional.

(53) #If Whiz, I think, was invited, then Whiz DJ'ed. ANTECEDENT

(54) If Whiz was invited, then, I think, Whiz DJ'ed. CONSEQUENT

That a parenthetical can appear in the consequent is not much of a surprise given that it is syntactically the main clause (Bhatt and Pancheva, 2006). But the parenthetical is not interpreted in the consequent. It receives an interpretation in (54) where it scopes over the entire conditional. What the speaker is hedging is the conditional relation between the antecedent and consequent.

Turn next to coordinating structures with *and* or *or*. For each, I investigate whether their dependent declaratives can be qualified simultaneously and individually. Start off with conjunction.

(55) Whiz DJ'ed, I think, and his partner watched, I heard. BOTH

(56) Whiz DJ'ed, I think, and his partner watched. FIRST CONJUNCT

(57) Whiz DJ'ed and his partner watched, I heard. SECOND CONJUNCT

A parenthetical plays nice with conjunction in every which way. Just one conjunct can be qualified or both conjuncts can be qualified. When just one conjunct is qualified, the sentence is ambiguous between a reading where the parenthetical takes wide-scope over the entire conjunction or where it qualifies just the conjunct where it appears syntactically. The wide-scope reading is preferred, especially in (57), but the latter is still available. However, disjunction is a different story. Fewer embeddings are grammatical.

(58) #Whiz DJ'ed, I think, or Riri DJ'ed, I heard. BOTH

(59) ?Whiz DJ'ed, I think, or Riri DJ'ed. FIRST DISJUNCT

(60) Whiz DJ'ed or Riri DJ'ed, I heard. SECOND DISJUNCT

Showcased in (58) is that parentheticals cannot simultaneously qualify individual disjuncts. That doubly-hedged disjunction crashes.¹⁷ Such a crash of a coordinate structure is to be expected if individual disjuncts cannot be qualified whatsoever. The failure of individual disjuncts to be qualified is born out in the remaining data. (60) is acceptable only because the sentence-final position encourages a wide-scope interpretation where the parenthetical is not interpreted where it appears. In comparison, (59) is middling because the parenthetical's sentence-medial position encourages an embedded reading that is not available, but the parenthetical can be interpreted by some as taking wide-scope over the disjunction.

The final configurations I consider are where a declarative appears as a complement to either a verb or noun. Both configurations are illustrated with sentence-medial and final parentheticals.

- | | |
|---|---------|
| (61) Riri believes, I think, that Whiz DJ'ed. | VERBAL |
| (62) Riri believes that Whiz DJ'ed, I think. | |
| (63) Riri has the idea that Whiz, I think, DJ'ed. | NOMINAL |
| (64) Riri has the idea that Whiz DJ'ed, I think. | |

The examples exhibit uniformity. A parenthetical can syntactically appear in a verbal or nominal complement headed by *that*, but it is not interpreted in that position. In (61) through (64), the parenthetical takes wide-scope over the main clause statement about what Riri believes or has ideas about.

Summarizing in Figure 3.3 what we have seen about embedded parentheticals, a generalization quickly emerges. Unless the parenthetical qualifies a dependent declarative in a conjunction, the parenthetical is always interpreted wide-scope if it can syntactically embed.

¹⁷ An interpretation can be recovered where the speaker is disjoining two quoted statements as in "*Whiz DJ'ed, I think*" or "*Riri DJ'ed, I heard*", but such an interpretation is one where the parenthetical is changing the position represented.

EMBEDDED PARENTHETICALS				
CONFIGURATION	POSITION	EMBEDDED	IN SITU	WIDE-SCOPE
Conditional	Antecedent			
	Consequent	✓		✓
Conjunction	Both conjuncts	✓	✓	
	First conjunct	✓	✓	
	Second conjunct	✓	✓	
Disjunction	Both disjuncts			
	First disjunct	?		✓
	Second disjunct	✓		✓
Complements	Verbal	✓		✓
	Nominal	✓		✓

Figure 3.3: Embedded parentheticals

When a parenthetical like *I think* takes obligatory wide-scope as opposed to being interpreted *in situ*, the main clause declarative becomes a qualified declarative. What this means for parentheticalism is significant. As per the overt constraint, it is only committed to unqualified, dependent declaratives representing the speaker as knowing if it is embedded in a conjunction. We therefore arrive at my earlier classification in §3.1 of declaratives into three categories: unqualified, overtly qualified, and covertly qualified. The only unqualified declaratives are in disjunctions and conditional antecedents. The covertly and overtly qualified are either syntactically independent or embedded in conjunctions.

3.4.4 Beyond English

Parentheticalism is general enough to apply to other natural languages that might use parenthetical verbs to qualify a declarative in compensation for lacking a closed-class set of evidential morphemes. As a result, it would be a strike against the proposal if it only worked for English. What is general enough to be true elsewhere should be true

elsewhere. Though the focus of this dissertation is directed at knowledge representation in English, an exception is made in this section to showcase how the proposal works smoothly outside of English.

I focus on Italian by considering data drawn from Giorgi (2010). She notes that the verbs like *credo* (believe), *suppongo* (suppose), and *dicono* (they say) can be used parenthetically.

(65) Luisa abbia telefonato **credo**.

Luisa called, (I) believe.

(66) Luisa abbia telefonato **dicono**.

Luisa called, (they) say.

(65) and (66) furnish examples. Giorgi (2010, 87) also notes that parentheticals in Italian show resistance to embedding like we previously observed for parentheticals in English.

(67) #Paolo ha detto che **credo** Maria sia andata a Parigi.

Paulo said that Maria, (I) believe, went to Paris.

(68) #Paolo ha detto che **dicono** Maria sia andata a Parigi.

Paulo said that Maria, (they) say, went to Paris.

The interesting difference between English and Italian parentheticals is that the subject of the attitude does not appear in Italian. While the first-person indexical *I* mandatorily accompanies parenthetical attitudes in English, Italian requires the absence of subjects. Giorgi (2010) concludes nevertheless that the speaker is represented covertly. The verb *credo*, for example, consists of the verbal stem *cred-* with the morpheme *-o* which marks it as first-person singular. Giorgi's hypothesis is that the first-person subject is still present in the left periphery of a declarative to ensure that the features of the parenthetical verb are checked.¹⁸ In parallel to my syntactic assumption that

¹⁸See Giorgi (2010) for the arguments why. Note that her proposal helps take the edge off my proposal that an entire parenthetical is covert in English. Covert parenthetical verbs in English consisting of a first-person subject and a verb are less surprising if the subject of an overt parenthetical verb in Italian can be covert.

English parentheticals occupy the evidential projection of the left periphery, Giorgi maintains the same for Italian parentheticals.

The parenthetical explanation readily extends to Italian parentheticals. Declaratives divide into qualified and unqualified. While declaratives (67) and (68) are qualified, (69) is not.

(69) Luisa abbia telefonato.

Luisa called.

Like our English parentheticals, Italian declarative order in strength of the epistemic position represented. In the previous examples, (68) qualified with *dicono* is weaker than (67) qualified by *credo* and both are weaker than the unqualified (69). Parentheticalism tells us why: an unqualified declarative contains a covert *so* (know) that represents the speaker as knowing the at-issue proposition that Luisa called. Indirect evidence for a covert parenthetical is found in there being the same infelicity of an overt *so* (know) parenthetical that we observed earlier for English. Giorgi (2010, 88) offers this example.

(70) #Maria è andata a Parigi **so**.

#Maria has gone to Paris, (I) know.

I explained crashes like (70) in §3.4.2 with OFM-R, a special grammatical rule. It is imminently plausible that OFM-R or a similar rule for Italian parentheticals accounts for why (70) is uniquely defective.

I conclude that parentheticalism is by no means limited to English in application. More than that, what goes for English and Italian plausibly goes for other natural languages as well. German is another promising candidate. It lacks the closed-class evidential morphemes but still has qualified and unqualified declaratives with which speakers represent their epistemic positions. Scheffler (2009) notes that knowledge parentheticals are infelicitous too. I leave a thorough exploration of German and other languages to future work.

3.5 A multidimensional semantics

Declaratives are typically thought about in terms of their truth-conditions. But truth-conditions do not exhaust meaning. In §3.5.1, I introduce a multidimensional conception of meaning. That conception makes room for a variety of non-truth-conditional meaning initially explored by Kaplan (1999) which places conditions on felicitous use as opposed to conditions on truth. Then I offer a multidimensional semantics in §3.5.2 for epistemic parentheticals that assigns them use-conditional as opposed to truth-conditional meaning.

3.5.1 Use-conditional meaning

Expressions abound that truth-conditions are inappropriate to explain. Examples include *hello* and *goodbye*, *oops* and *ouch*, and *whoa* and *yikes*. Such expressions are striking in at least two respects. First, to start, they have limited compositional integration in sentences. They are usually used as standalone utterances. Second, they also are not descriptive akin to how *Whiz* describes an individual and *DJ* describes an activity in which individuals like *Whiz* can participate.

And yet, they have a meaning based in convention like descriptive expressions. There are clear and discernible ways in which such expressions can be misused by a speaker. For example, *hello* is used to greet someone at the start of an interaction as opposed to *goodbye*. Someone who used *goodbye* instead of *hello* would show a semantic incompetence. Let's reserve EXPRESSIVES to name words fitting this description. Unlike expressions such as the proper noun *Whiz*, the meaning of expressives are explainable primarily in terms of rules of use. We cannot elucidate their meaning by specifying what they contribute compositionally to a representation of an object being a certain way. But their meaning can be elucidated by specifying the conditions under which they are felicitously used by in a context.

But how are we to bring those meanings into sharper focus with a formal semantics? Kaplan (1999) provides an answer. Ordinary, non-expressive words contribute to truth-conditions. Truth-conditional meaning—given its own dedicated assignment

function $\| \cdot \|$ ^{*t*}—is familiarly represented in a semantics as a set of worlds in which a sentence is true.

$$(71) \|\text{Whiz DJ'ed}\|^t = \{w: \text{Whiz DJ'ed in } w\}$$

The truth-conditional meaning of *Whiz DJ'ed* is thereby (71). That sentence is true at a world *w* if and only if $w \in \|\text{Whiz DJ'ed}\|^t$. However, expressive words contribute to use-conditions where use-conditional meaning—given its own assignment function $\| \cdot \|$ ^{*c*}—is representable as a set of contexts. In the mouth of Kaplan (1999, 10), “The semantic information in the word. . . is represented by the set of those contexts at which the word. . . is expressively correct.” Assuming with the earlier Kaplan (1989) that a context is a tuple $\langle c_s, c_w, \dots \rangle$ consisting of objects such as *c_s*, the speaker of the context, and *c_w*, the world of the context, the meaning of *Ouch* has a use-conditional meaning along the lines of (72).

$$(72) \|\text{Ouch}\|^u = \{c: c_s \text{ is in pain in } c_w\}$$

The analogue of truth for use-conditional meaning is felicity. Felicity can be defined in a parallel way to truth’s relation to a sets of worlds. An instance of *Ouch* is felicitous at a context *c* if and only if $c \in \|\text{Ouch}\|^u$.

Supplementing truth-conditions with use-conditions yields a MULTIDIMENSIONAL SEMANTICS. A multidimensional semantics is one in which the meaning of an expression can contribute a semantic value to more than one level of meaning. Though use-conditional meaning or *u*-meaning is illustrated with expressives like *ouch*, non-expressives that compositionally integrate with sentences may have *u*-meaning as well. What a multidimensional semantics enables is a three-fold classification of semantic expressions: expressions that only contribute to truth-conditions, expressions that only contribute to use-conditions, and expressions that contribute to both. A slur is taken by many as an example of a hybrid expression that contributes to multiple dimensions (Potts, 2007; Gutzmann, 2015). For example, *That asshole Whiz DJ'ed* can be interpreted thusly.

$$(73) \|\text{That asshole Whiz DJ'ed}\|^t = \{w: \text{That Whiz DJ'ed in } w\}$$

(74) $\| \text{That asshole Whiz DJ'ed} \|^u = \{c: c_s \text{ dislikes Whiz in } c_w\}$

At the level of truth-conditional meaning or *t*-meaning represented in (73), *asshole* makes no contribution beyond what the complex demonstrative *That Whiz* already contributes. But its *u*-meaning stated in (74) is a set of contexts where the speaker of the context dislikes or hates Whiz in the world of the context. Whether such analysis of slurs is correct is not a question I address, but the toy semantics for slurs aptly demonstrates how a multidimensional semantics in the style of Kaplan “extend[s]... formal model-theoretic semantics to a range of expressions that have been regarded as falling outside semantics (1999, 18).”

The need to explain expressives is one reason to turn to a multidimensional semantics. Another reason is to explain what Grice (1989) dubbed CONVENTIONAL IMPLICATURES. Grice notes that expressions such as the discourse connectives *therefore* convey a separate proposition from what was said by a sentence. In our present terminology, conventional implicatures are not-at-issue propositions conveyed by words or dependent clauses of a sentence that are still separate from the sentence’s at-issue proposition.

(75) Whiz was invited. Therefore Whiz DJ’ed.

(76) Whiz, who is a promoter, DJ’ed.

The second sentence in (75) carries a conventional implicature by starting with *therefore* to connect inferentially to the first sentence. It conveys that Whiz DJing follows from Whiz having been invited. Likewise, (76) conveys that Whiz is a promoter through the appositive *who is a promoter*. So conventional implicatures are like expressives in their independence from the at-issue proposition. The truth of the at-issue proposition does not depend on the truth or felicity of content at another dimension. But they differ by still being truth-conditional. The appositive in (76), for example, has truth-conditional meaning because it consists of a tense phrase that has a proposition for its meaning. Not so for expressives like *goodbye* and *ouch*.

Though Grice identified conventional implicatures as a dimension of meaning, he did not give a way to explain them in a model-theoretic semantics. That development

was initially provided by Potts (2004). But Pott’s semantics—rich as it was—could not assign hybrid meaning to expressions. An expression was limited to contributing a semantic value at only one dimension. An improved logic owed to McCready (2010) secures hybrid meaning where an expression contributes to multiple dimensions. But what about a multidimensional semantics that makes room for *u*-meaning? Gutzmann (2015) provides that system and I rely upon that semantic architecture in what follows. The details are mostly saved for an appendix in §3.10, but I will introduce some as we progress. I continue to use $\|\cdot\|^t$ and $\|\cdot\|^u$ as dedicated interpretation functions for each dimension of meaning.

3.5.2 From evidentials to parentheticals

Remember evidentials from §3.3.1? They are an ideal candidate for a multidimensional semantics because, for most languages, they cannot receive a static unidimensional semantics. None of the explanatory options are particularly plausible. Their contribution cannot be integrated into the at-issue, truth-conditional content of a declarative in a context because the proposition about the speaker’s evidence source is not-at-issue like a presupposition is. Nor can their contribution be regarded as presuppositional. Presuppositions are not truth-conditionally independent of the at-issue proposition, but evidentials are. The proposition they contribute is not-at-issue in a context and fully separate from the at-issue proposition.

Building on Faller (2002) and her discussion of Cuzco Quechua, McCready (2010) proposes a multidimensional semantics for its evidentials. I illustrate with the evidential *cha*. It is an inferential—it marks the speaker’s source as having been inferred from other propositions. But *cha* does more than that. Unlike the other evidentials in Cuzco Quechua, *cha* does ever so modestly modify the at-issue content. According to Faller (2002), it modalizes that at-issue content as a possibility statement. Adopting the proposal of McCready (2010) but regarding the not-at-issue contribution as *u*-meaning, we get this semantics.

$$(77) \|\text{cha}\|^t = \lambda p. \Diamond p$$

$$(78) \parallel \text{cha} \parallel^u = \lambda p. \{c: c_s \text{ inferred } p \text{ in } c_w\}$$

For its *t*-meaning dimension stated in (77), *cha* is a function from a proposition to that same proposition modalized. The content about evidence source comes at the use-conditional level in (78). It is a function from a proposition to the set of contexts where the speaker inferred that proposition in the world of the context. A sentence containing *cha* can therefore be true but infelicitous when the context of utterance is not an element of the *u*-meaning in (78).

I claimed that what goes for evidentials should go for epistemic parentheticals in English. As a first pass, parentheticals are naturally given the multidimensional semantics below.

$$(79) \parallel \text{I think} \parallel^t = \lambda p. p$$

$$(80) \parallel \text{I think} \parallel^u = \lambda p. \{c: c_s \text{ thinks } p \text{ in } c_w\}$$

When it comes to our earlier observations in §3.3.2, such a semantics delivers. The not-at-issue status of the parenthetical falls out of the fact that its only non-vacuous contribution is to *u*-meaning: that is why it projects, that is why it is not available for propositional anaphora. The semantics also gives a transparent and elegant account of what position representation amounts to. A use of a qualified declarative with a parenthetical has *u*-meaning requiring the speaker to have the attitude specified. If they do not, the declarative is infelicitous.

But a problem with that semantics is that it gives *I think* a different meaning from its meaning in a non-parenthetical position. What we want is a fully compositional semantics where the multidimensional meaning is derived from its parenthetical position as opposed to stipulated by fiat. The solution is to posit that the evidential slot in the left periphery of English hosts a dimension-shifting operator ‘ \otimes ’ that composes with a subject and attitude to yield a use-conditional meaning.¹⁹ Then (79) and (80) give way to (81) and (82).

¹⁹The common-intonation associated with parenthetical verbs could be thought of as the overt reflex of the dimension-shifter. Potts (2004), Nouwen (2007), and Anderbois et al. (2015) propose something similar for the common-intonation associated with appositives. It toggles between the different contents contributed.

$$(81) \quad \|\otimes \text{I think}\|^t = \lambda p.p$$

$$(82) \quad \|\otimes \text{I think}\|^u = \lambda p.\{c: c_s \text{ thinks } p \text{ in } c_w\}$$

I save the details of how the parenthetical gets bumped down to u -meaning for the Appendix (§3.10). What matters is that the contribution to u -meaning as opposed to t -meaning is compositionally derived.

Deploying this semantics in the service of parentheticalism, we arrive at the multidimensional meaning below for an unqualified declarative like *Whiz DJ'ed*. Nothing new or extravagant happens at the level of t -meaning. In a context, *Whiz DJ'ed* expresses the same proposition that it was always taken to express on a unidimensional semantics.

$$(83) \quad \|\text{Whiz DJ'ed}\|^t = \{w: \text{Whiz DJ'ed in } w\}$$

$$(84) \quad \|\text{Whiz DJ'ed}\|^u = \{c: c_s \text{ knows that Whiz DJ'ed in } c_w\}$$

However, the declarative now has a u -meaning in a context that it did not previously have. An unqualified declarative in a context is therefore assessable for truth at the level of t -meaning and felicity at the level of u -meaning. The u -meaning imposes the requirement that the speaker knows in the context. When the speaker does not know in the context, the declarative is infelicitous. On the semantics provided, parentheticals parallel evidentials in ways both syntactic and semantic. Syntactically, they are denizens of the left periphery that take wide-scope over a tense phrase. Semantically, they contribute content at a dimension of meaning different from the at-issue, truth-conditional dimension.

3.6 Assertoric data revisited

Parentheticalism implemented in a multidimensional semantics gives us what we need to supplant assertion. The use of a declarative in a context has two effects corresponding to each dimension. At level of t -meaning, the declarative has a proposition for its meaning. A proposition is thereby expressed by the speaker's use of the declarative. At the level of u -meaning, the declarative carries the condition that the speaker knows

the proposition at the other level. The speaker is thereby represented as knowing the proposition that is the declarative's *t*-meaning.

By explaining knowledge representation, parentheticalism can account for the declarative data that a theory of assertion was otherwise needed to explain. I revisit some of each variety of data canvassed in §2 to illustrate. Challenge data is discussed in §3.6.1 as an instance of conversational data. In §3.6.2, Moorean absurdity is handled as the exemplar of linguistic data. A general discussion of normativity is provided in §3.6.3. I finish in §3.6.4 with discourse effects attributed to assertion but which parentheticalism captures too.

3.6.1 Challenge data

Whether qualified or unqualified, the use of a declarative in a context has two dimensions of meaning. Each dimension presents content, each content can be challenged or queried by a conversational participant. Consider a qualified declarative like *Whiz DJ'ed, I think*. It conveys *t*-meaning that Whiz DJ'ed and *u*-meaning that the speaker knows as much. Both are targets for a conversational participant who does want to take the speaker's word on what was said.

A salient difference between the two varieties of meaning is that only *t*-meaning is available for propositional anaphora. To challenge *u*-meaning, the speaker has to be less direct.

(85) (A) Whiz DJ'ed, I think.

(B) That's false!

TRUTH CHALLENGE

↪ The actual world $w_{@}$ is not an element of $\{w: \text{Whiz DJ'ed in } w\}$

(86) (A) Whiz DJ'ed, I think.

(B) You don't think that!

FELICITY CHALLENGE

↪ The context of use $c_{@}$ is not an element of $\{c: c_s \text{ thinks that Whiz DJ'ed in } c_w\}$

Content is challenged by having its correctness called into question: *t*-meaning has its truth challenged whereas *u*-meaning has its felicity challenged. Illustrations are given

in (85) and (86). Note how *You don't think that!* does not challenge the *t*-meaning even though it exploits anaphora to denote it. Instead, it challenges that a relation obtains between the speaker and that meaning.

Unqualified declaratives behave as expected. By containing a covert *I know*, they have *u*-meaning representing the speaker as knowing the proposition that is the *t*-meaning.

(87) (A) Whiz DJ'ed.

(B) That's false!

TRUTH CHALLENGE

\rightsquigarrow The actual world $w_{@}$ is not an element of $\{w: \text{Whiz DJ'ed in } w\}$

(88) (A) Whiz DJ'ed.

(B) You don't know that!

FELICITY CHALLENGE

\rightsquigarrow The context of use $c_{@}$ is not an element of $\{c: c_s \text{ knows that Whiz DJ'ed in } c_w\}$

Since the declaratives have the same *t*-meaning, (87) and (88) display the same truth challenge. The felicity challenges are different, though, because the *u*-meaning is different in each. The unqualified declarative represents the speaker as knowing—the felicity challenge interrogates that.

An unsurprising but noteworthy asymmetry exists in how the declaratives can be felicitously challenged. An unqualified declarative can have its felicity challenged without defect by any challenge proper to a qualified declarative. Example (89B) puts that on show.

(89) (A) Whiz DJ'ed.

(B) You don't think that!

(90) (A) Whiz DJ'ed, I think.

(B) #You don't know that!

The flipside does not hold. As (90B) illustrates, a qualified declarative cannot have its felicity challenged by all challenges proper to an unqualified one. The asymmetry is explained by the strength ordering noted in Figure 3.2 in §3.3.2. An unqualified

declarative is stronger than a qualified declarative. It thereby entails that the speaker occupies the weaker positions. You cannot know something without thinking it. That is why knowledge representation can be challenged by doubting that the speaker occupies a weaker position. In contrast, thinking is weak; thinking something does not mandate knowing it. As a result, *You don't know that!* is a bizarre challenge to a qualified declarative like (90A).

3.6.2 Moorean absurdity

Moore's original diagnosis of his absurdity was that the assertive use of an (unqualified) declarative sentence implied that the speaker knows the proposition expressed. As he puts it, "by asserting p positively you imply, though you don't assert, that you know that p (1962, 277)." Though he maintained that the sense of *implication* was not logical entailment, he nevertheless insisted that "there seems to be nothing mysterious about this sense of 'imply' (1942, 542)."

Few have followed Moore's diagnosis. Parentheticalism with its multidimensional flair does in spirit. Let's dwell on use-conditional meaning a little to see how. While exploring how to understand how expressives impact entailment, Kaplan (1999) drew a distinction between meaning and SEMANTIC INFORMATION. For him, two expressions could have different meanings in the object-language, but still possess the same semantic information in the meta-language. As an example he considers *ouch* versus *I am pain*. They do not have the same meaning; they are not synonymous. But, still, they carry the same semantic information. Gutzmann (2015, 24) provides a way to see this informational sameness clearly. The following lowers a u -meaning into a t -meaning by filling in the contextual parameters of the context set to yield a set of worlds where the condition holds.

LOWERING

If $c = \langle c_s, c_h, c_w \rangle$ is a context and $CS = \{ \langle x, y, z \rangle : R(x, y, z) \}$ is a set of contexts given by a relation R , then $\Downarrow_c = \{ w' : R(c_s, c_h, w') \}$.

Applying $\Downarrow_c(\cdot)$, the lowering operator, to $\| \cdot \|''$ thereby produces a set of worlds from

u -meaning. Applied to Kaplan's example of *ouch* and *I am pain* where c_s is Whiz, we get (91) and (92).

$$(91) \ ||I \text{ am in pain}||^t = \{w: \text{Whiz is in pain in } w\}$$

$$(92) \ \Downarrow_c ||\text{ouch}||^u = \{w: \text{Whiz is in pain in } w\}$$

Lowering gives us a clean grasp of how meaning in the t -dimension and u -dimension can carry the same information while not having the same meaning. An upshot is that a lowered u -meaning can now enter into entailment relations with t -meaning. In the example, $||I \text{ am in pain}||^t$ entails $\Downarrow_c ||\text{ouch}||^u$.

We can now give a Moore-inspired explanation of absurdity by looking to use-conditional implication. The basics of Moorean absurdity is a contradiction across different dimensions of meaning. The u -meaning of the first part of the discourse contradicts both the t -meaning and u -meaning of the second part of the discourse. We can see as much by considering the meanings a Moorean discourse divided over (93) and (94).

(93) Whiz DJ'ed.

$\{w: \text{Whiz DJ'ed in } w\}$	t -meaning
$\{c: c_s \text{ knows that Whiz DJ'ed in } c_w\}$	u -meaning
$\{w: \text{Riri knows that Whiz DJ'ed in } w\}$	\Downarrow_c -meaning

(94) But I do not know that.

$\{w: \text{Riri does not know that Whiz DJ'ed in } w\}$	t -meaning
$\{c: c_s \text{ knows that } c_s \text{ doesn't know that Whiz DJ'ed in } c_w\}$	u -meaning
$\{w: \text{Riri knows that she doesn't know that Whiz DJ'ed in } w\}$	\Downarrow_c -meaning

Consider the \Downarrow_c -meaning of (93) alongside the t -meaning of (94). They logically contradict. The other contradiction takes the same route. Since knowledge is factive, the \Downarrow_c -meaning of (94) entails its t -meaning. That is why the \Downarrow_c -meanings of (93) and (95) contradict as well. Altogether, Moorean absurdity gets explained as a kind of semantic contradiction as opposed to some sort of conflict between what is said and what is required for assertion.

3.6.3 Normativity

Parentheticalism offers a novel account of how the speaker represents knowledge by using an unqualified declarative in a context. Speaker knowledge is not represented at the level of action like theories of assertion insist. It is represented at the level of meaning. But parentheticalism does not identify the precise conditions under which the use of an unqualified declarative renders the speaker liable to blame or censure. That limitation might seem like a problem.

I do not see it that way. To explain the non-deviant data from §2.3, theories of assertion need to maintain that the use of an unqualified declarative represents the speaker as knowing. The lesson I drew from the deviant data in §2.4 was that position misrepresentation is not sufficient for the speaker being liable. It follows that no theory of assertion can detail the normative conditions for proper uses of declaratives on its own. How the knowledge norm is often defended from deviance illustrates. Williamson (2000) notes that speakers can permissibly misrepresent themselves in urgent situations where silence is not an option because something has to be said. That explanation appeals to normative considerations external to the theory of assertion. Being explicit, the knowledge norm requires supplementation to detail the conditions under which the use of an unqualified declarative renders the speaker liable and so it goes for any explanatory theory of assertion. Parentheticalism is not worse-off than any explanatory theory of assertion.²⁰

Nevertheless, the parenthetical explanation is still of use in diagnosing common instances of speaker liability. At the start of §2, proper and improper assertion were distinguished according to whether the speaker truly occupies the position represented. The same means of distinguishing applies here albeit in the new terminology of felicity. Felicitous and infelicitous uses are distinguished according to whether the speaker occupies the position specified in the use-conditional meaning of a declarative. When the

²⁰It might be better off. It would be a mistake to expect a theory of truth-conditional meaning to fully explain what's wrong with saying falsehoods. That is not what a theory of truth-conditional meaning is for. Likewise, it is a mistake to expect a theory of use-conditional meaning to fully explain what's wrong with misrepresenting one's position. That is not what it is for. As such, we should expect a semantic theory in each case to be supplemented. It is not clear that a theory of assertion is entitled to the same expectation.

sentence is infelicitous, the speaker has intentionally or accidentally misrepresented her epistemic position in the context.

In talking about felicity, a distinction should be drawn between felicity that is TRANSPARENT as opposed to NON-TRANSPARENT. Transparent felicity is the variety we are more familiar with. When a question mark or hashtag accompanies a sample sentence, it is because the sentence is infelicitous in a manner accessible to native speakers due to their semantic competence. No additional extra-semantic knowledge about the speaker is required to recognize the infelicity. Non-transparent felicity differs in precisely this way. It is recognizable only with additional knowledge about the speaker. To illustrate, consider Kaplan's meaning for *ouch* discussed previously in §3.5.1. It is used infelicitously in a context if and only if the speaker is not in pain in that context. But whether the speaker is in pain is not transparent. Additional knowledge about their experience is required.

The felicity of knowledge representation is non-transparent. On top of that, participants rarely know whether a speaker knows the propositions they are expressing. Therein lies the power of a declarative to be used improperly. Though not a theory of action, parentheticalism still helps us diagnose such impropriety by identifying infelicity. As illustration, consider lottery assertions. I submit that lottery assertions are defective because they are a rare case in which participants do know that the speaker does not know the proposition being expressed. Since the lottery is fair, the speaker cannot know that a ticket is a loser. It is something speakers can think or believe at best. Accordingly, lottery assertions are defective because participants know that the *u*-meaning is infelicitous.

3.6.4 Discourse effects

One of the most useful ideas that has resulted from theorizing about assertion is the suggestion made initially by Stalnaker (1978) that a speaker's assertion updates the common ground if it is accepted by conversational participants. Parentheticalism can explain this important discourse effect.

By re-categorizing most unqualified declaratives as qualified declaratives, parentheticalism enables Stalnaker's observation to be understood as a broader pragmatic phenomenon. Declaratives are proposals to update the common ground because of the epistemic position represented in *u*-meaning.²¹ But that proposal is not tied to any position. Only when the position represented reaches a certain strength does the declarative become a proposal.

STALNAKERIAN EFFECT (E_S)

The use of a declarative *d* in a context *c* is a proposal to update the common ground in *c* if the epistemic position represented by *d*'s use-conditional meaning in *c* is equal to or greater than *n* in strength.

I remain neutral on where to benchmark *n* in E_S . It could start at acceptance, belief, or knowledge. Since knowledge is equal to or greater than each of these in strength, knowledge representation is strong enough for the use of the declarative to be a proposal to update the common ground. Alternatively, *n* could be context-sensitive. Sometimes Stalnaker suggests that the attitude that speakers mutually take towards a proposition to render that proposition common can change. What strength of position is necessary could change in lockstep.

A benefit of understanding Stalnaker's suggested discourse effect as a more general phenomenon caused by position representation is that it enables a non-stipulative explanation of when a declarative is or is not a proposal to update the common ground. Consider weak hedges like *Whiz DJ'ed, I heard* or their counterpart in natural languages with hearsay evidentials. The use of such declaratives is not a proposal to update the common ground. An act-based explanation of this fact could be given by stipulating that such declaratives token a speech act which does not have the discourse effect that the speech act of assertion has. But that explanation requires positing a new act-type

²¹I recast it as a pragmatic effect because Stalnaker initially did. A dynamic but multidimensional semantics could be developed wherein the effect is a partial function on the position represented. In line with E_S below, declaratives would update the context set depending on the strength of the epistemic position specified in the declarative's *u*-meaning. Alternatively, one could opt for a dynamic semantics wherein there are many context sets corresponding to different position strengths and which get updated depends on a declarative's *u*-meaning. For proposals roughly along these lines, see Northrup (2014) and McCready (2015).

and stipulating what the discourse effects of that act are. We find a more probative explanation by noting that the discourse effect disappears when the epistemic position represented in *u*-meaning is below *n*.

Whichever development of E_S is best, the lesson is that parentheticalism captures Stalnaker's observation about assertion's discourse effect. When we accept parentheticalism, we do not lose an explanation of KRH or related phenomena. We receive a different one.

3.7 Standard objections

Having seen how parentheticalism supplants assertion, this section focuses on the traditional reasons for keeping assertoric force—or as I distilled it in §2, knowledge representation—out of semantics. In §3.7.1, I focus on trouble caused by embedded declaratives. §3.7.2 considers how declaratives can be used to perform to many different actions within a conversation. I argue that neither poses a problem for parentheticalism.

3.7.1 Embedding

Frege (1879, 1892) taught us to distinguish the thought of a sentence from the force with which it is presented. He had a number of reasons. A leading reason for relegating judgement expression—what he thought was the force of a declarative—to a theory of assertion was that declaratives can be dependent clauses in a variety of syntactic configurations.

- (95) I do not know that Whiz DJ'ed.,
- (96) Suppose that Whiz was invited.
- (97) If Whiz DJ'ed, then Whiz was invited.
- (98) Either Whiz DJ'ed or Whiz didn't DJ.

Sentences (95) through (98) illustrate. Each contains a dependent occurrence of the declarative clause (*that*) *Whiz DJ'ed*. None of these declaratives represent the speaker

as knowing that Whiz DJ'ed.²² Since a semantic explanation would presumably over-predict knowledge representation in these instances, an act-based explanation is taken as better suited for the explanatory job.

In unpacking what a declarative clause is, I noted in §3.2 that there were two places inside an unqualified declarative where knowledge representation could be sourced. It could be associated with the meaning of the declarative mood or it could be owed to something special in the left periphery. Over the last few sections, I have taken the latter option. Knowledge representation is owed to a covert *I know* occupying an evidential projection in the left periphery. That choice-point is significant when it comes to handling the embedding problem.

To illustrate the significance of the direction I took with parentheticalism, it will be instructive to take the opposite direction and pursue a mood-based explanation of knowledge representation. To be concrete, let's assume that the multidimensional semantics I gave for declaratives with a covert *I know* is just the meaning of the declarative mood.

$$(99) \ ||\mathcal{D}||^t = \lambda p.p$$

$$(100) \ ||\mathcal{D}||^u = \lambda p.\{c: c_s \text{ knows } p \text{ in } c_w\}$$

The mood morpheme \mathcal{D} is a function from the semantic value of the underlying tense phrase. At the level of t -meaning, it does nothing. However, it imposes a knowledge requirement at the level of u -meaning.

Such a semantics makes all the wrong predictions. The declarative *Whiz DJ'ed* in (95) appears as the dependent argument to a verb. Were the speaker representing that they know Whiz DJ'ed, (95) would express a cross-dimensional contradiction. The u -meaning of the dependent declarative would represent the speaker as knowing that Whiz DJ'ed and that would flatly contradict the t -meaning of the independent

²²In speech act vernacular, none of these declaratives have assertoric force. Geach (1965) calls this THE FREGE POINT. See Stenius (1967), Searle (1969), Hare (1970), Dummett (1973), Zimmerman (1980), and Pendlebury (1986) for early discussion. More recent discussion is provided by Green (2000), Starr (2014), and Murray and Starr (2018).

declarative. But (95) does not express a contradiction. Jump to (98) next. If each disjunct represented the speaker as knowing, the disjunction would have contradictory *u*-meanings regarding what the speaker knows. Similar remarks can be made about the other embedding examples.

In contrast, parentheticalism makes the right predictions. Recall my discussion in §4.2.3 about which unqualified declaratives represent the speaker as knowing. Parentheticalism only applies to those which can be overtly qualified with parentheticals like *I believe*. I called this the OVERT CONSTRAINT. The survey of syntactic configuration concluded that conjunctions are the only dependent configuration in which unqualified declaratives represent the speaker as knowing. Parentheticalism consequently predicts vis-à-vis the constraint that knowledge representation is absent in declaratives (95) through (98). What is a traditional problem for mood-based approaches to force is solved by parentheticalism.

Some who opt for a mood-based explanation of force just stipulate that the operators do not appear in dependent declaratives.²³ Stipulation does not avoid the problem posed by embedding—it merely ignores it. An explanation for why that stipulation is justified is still necessary. Parentheticalism, however, does sail past the problem. The survey of dependent declaratives in §4.2.3 shows that parentheticals do not embed. Their non-embeddability, in other words, is an empirical generalization. Parentheticalism is able to appeal to that generalization to make accurate predictions about whether declaratives like (95) through (98) involve knowledge representation. The unqualified declaratives do not contain *I know* because they are declaratives that cannot host any parenthetical verbs.

3.7.2 Illocutionary variation

Declaratives are unique in that their use enables a speaker to perform many different acts. I sort such variation into two categories. The first category are PERFORMATIVES. Austin (1962) observed that declaratives can be used to in a way where their apparent

²³For example, see Bierwisch (1980) and Krifka (2001). Consult Portner (2018) for a recent discussion of such views.

purpose at the level of action is not to state how the world is but to do what is denoted by the verb.

(101) I hereby promise that Whiz will DJ. PROMISE

(102) I hereby name you “Whiz.” NAMING

As (101) and (102) illustrate, performative uses involve a first-person subject and present-tense verb. Change either of these components and the performativity disappears. *Whiz promised that he will DJ*, for example, changes both components and is usually received by a participant as an assertion.

Declaratives can also be used in a context to perform the discourse function associated with the other clause types. The second category are INDIRECTIONS. Examples are found below.

(103) I want to know whether Whiz DJ’ed. QUESTION

(104) Whiz, I want you to DJ. COMMAND

A declarative like (103) is received by participants at the level of action as a question. It is as if the speaker used an interrogative. A cooperative participant would respond by saying whether Whiz DJ’ed or opting-out by saying *I don’t know*. (104) is similarly received and issued as a command. The speaker using such a declarative in a context is trying to get a particular participant to comply with her preference for them. It is as if the speaker used an imperative.

The variation observed inclines many to regard declaratives as not being associated with a particular speech act. Recanati (2013, 630), for example, concludes that “In contrast to other clause-types, declarative sentences do not correlate with any category of illocutionary force. . . . A declarative sentence represents a state of affairs, that is all.” Fortunately, an off-the-shelf solution to variation exists: affirm that the use of a sentence in a context can perform more than one act.²⁴ That allows a sentence’s use to

²⁴The two-fold act approach to performatives is taken by Lemmons (1962), Hedenius (1963), Bach and Harnish (1979), Ginet (1979), and Condoravdi and Lauer (2011). Such an approach is taken to indirection by Searle and Vanderveken (1985), Asher and Lascarides (2001), and Lepore and Stone (2015), among others.

be both an assertion and another act. For example, (101) can be used in a context to make both an assertion and a promise.

Parentheticalism can freely help itself to a similar treatment of performatives and indirections. In each example, knowledge representation does not disappear. It is a component of the acts performed. Consider (103). Though its use is often received by participants as if the speaker had used an interrogative, (103) still represents the speaker as knowing in u -meaning. Nevertheless, parentheticalism's treatment of illocutionary variation is different in an important respect. Some are reluctant to affirm that a sentence in a context can perform more than one act because affirming as much violates this principle.

ILLOCUTIONARY MONISM

The use of a sentence in a context c tokens at most one illocutionary act-type in c .

Johnson (2018) observes that even those like Searle (1969) who pursue the double-barreled strategy shy away from violating it generally. I do not take a position on whether illocutionary monism is apt. I merely offer this observation: parentheticalism need not violate it. By supplanting assertion with a use-conditional semantics for knowledge representation, performatives and indirections do not need to be analyzed as two-fold acts. They can be analyzed as solitary speech acts that still involve knowledge representation semantically.

Some regard indirections like (103) and (104) as conventionalized (Lepore and Stone, 2015, 2018). That a declarative can be received at the level of action as if another clause type were used is owed to that declarative having special meaning. Though a defense of parentheticalism does not require a position on this issue, conventionalized indirection is easily accommodated. Suppose for illustration that the polar interrogative *Did Whiz DJ?* and the imperative *Whiz, DJ!* have the use-conditions stated below in (105) and (106).

- (105) $\| \text{Did Whiz DJ?} \| ^u = \{c: c_s \text{ wants } c_a \text{ to answer whether Whiz DJ'ed in } c_w\}$

$$(106) \parallel (\text{Whiz},) \text{DJ}! \parallel^u = \{c: c_s \text{ wants } c_a \text{ to DJ in } c_w\}$$

For illustration purposes, the exact use-conditions do not matter. I have made them alike in representing a desire of the speaker for the addressee to respond in a particular way. We can intersect these use-conditions with those for (103) and (104) to yield the following.

$$(107) \parallel \text{I want to know whether Whiz DJ'ed} \parallel^u = \{c: c_s \text{ knows that } c_s \text{ wants to know whether Whiz DJ'ed and } c_s \text{ wants } c_a \text{ to answer whether Whiz DJ'ed in } c_w\}$$

$$(108) \parallel \text{Whiz, I want you to DJ} \parallel^u = \{c: c_s \text{ knows that } c_s \text{ wants } c_a \text{ to DJ and } c_s \text{ wants } c_a \text{ to DJ in } c_w\}$$

In this way, the multidimensional semantics readily makes room for indirections to be analyzed as declaratives with extra *u*-meaning: namely, the *u*-meaning associated with a polar interrogative or imperative. (107) has the oomph of an assertion and question because it has the *u*-meaning characteristic of both associated clause types. Likewise, (108) has the gusto of an assertion and a command because it has a richer *u*-meaning than normal.²⁵

3.8 An objection to elimination

So far, we have seen that knowledge representation can be explained semantically. My proposal ensures that the declarative data gets an explanation (§3.6) and that the issues that normally wreck attempts to semanticize are navigated through with ease (§3.7). But does what I have defended really eliminate the need to appeal to the act-type of assertion to explain linguistic practice? In this section, I discuss the challenge posed by assertions performed by non-declaratives.

²⁵The treatment of indirect questions or commands performed with declaratives applies equally to indirect assertions. Considers examples discussed recently by Garcia-Carpintero (2016). They are either declaratives used figuratively or interrogatives used rhetorically. I argue shortly that rhetorical questions are not assertions because they do not exhibit the declarative data. It is also a mistake to regard figuratively used declaratives as indirections. Figurative use does not modify the force of the act performed; it alters the content expressed by the declarative.

The first putative case of a non-declarative assertion considered is an extra-semantic gesture.²⁶ Schiffer (1972, 126) offers as an example a husband who communicates to his wife that he is bored at a party by wiggling both ears. Suppose as MacFarlane (2011) does that the ear wiggle constitutes an assertion. Then assertion can be tokened by non-declaratives. Since assertion can be tokened by non-declaratives, no semantic explanation of knowledge representation that applies only to unqualified declaratives is adequate for elimination. Residual speech acts remain that require a theory of assertion *qua* theory of action to be explained.

Dwell on what is required for the wiggle to convey a message. The ear wiggle must be part of a private code between the husband and wife. Otherwise, nothing would distinguish the wiggle as message from wiggle as non-message (*e.g.* wiggle as allergic reaction, wiggle as nervous tic). It therefore has meaning in virtue of a two-party convention. The husband can misuse the code by wiggling his ears when he is not bored. Imagine, for example, that his wife was aware from reading body language that he was enjoying a conversation. Were he to wiggle his ears amidst enjoyment, his wife would be rightfully confused.

Since extra-semantic gestures are not declaratives, my proposal that knowledge representation is owed to a covert parenthetical is unintelligible if applied to gestures. However, the broader semantic theory in which the proposal is implemented can be extended to gestures. In light of the considerations that the ear wiggle has a meaning which admits of misuse, the ear wiggle is analyzable as having multidimensional meaning.

$$(109) \ ||\mathfrak{D}_{\rightsquigarrow}\||^t = \{w: c_s \text{ is bored in } w\}$$

$$(110) \ ||\mathfrak{D}_{\rightsquigarrow}\||^u = \{c: c_s \text{ knows that } c_s \text{ is bored in } c_w\}$$

At the level of *t*-meaning, the ear wiggle, which I represent as $\mathfrak{D}_{\rightsquigarrow}$, expresses the same proposition as the unqualified declarative *I am bored*. It also has the same final *u*-meaning as that unqualified declarative. Where $\mathfrak{D}_{\rightsquigarrow}$ differs from *I am bored* is that its

²⁶Semantic and extra-semantic gestures should be distinguished because some gestures are arguably part of a language. Pointing with an index finger is a potential candidate. See Stojnic et al. (2017) for discussion.

two meanings are not compositionally determined. Its *t*-meaning is not inherited from the wiggly equivalent of tense phrase nor is its *u*-meaning owed to a wiggly equivalent of a higher, parenthetical-like element.

Extra-semantic gestures therefore pose no problem for eliminating assertion. Insofar as their assertion-like behavior can be similarly accounted for with a multidimensional semantics that features use-conditional meaning akin to what (110) assigns to the ear wiggle, gestures just illustrate the resourcefulness of the approach I have been taking in this chapter. What we thought we needed assertion for is what we can deploy use-conditional meaning to explain.

The next instance of a non-declarative assertion to consider is a rhetorical question. Rhetorical questions are interrogative clauses that are not interpreted as requesting or eliciting an answer.

(111) Can you do anything right?

An example is (111). It is most naturally interpreted as a complaint as opposed to a question—the complaint that the addressee can do nothing right from the speaker’s perspective. My eliminativism is in trouble again for leaving instances unexplained if rhetorical questions are assertions.

Rhetorical questions can be handled how I handled extra-semantic gestures: give them a multidimensional semantics wherein knowledge representation takes place in the *u*-dimension. But I think they pose no problem for a foundational reason. Even if a theory of assertion were necessary to explain linguistic practice, rhetorical questions would not qualify as assertions. In §2, I defended that knowledge representation is what a theory of assertion explains. From that conclusion, we can extract a simple test for whether an act performed is not an assertion: if knowledge representation is not an effect of the act, it is not an assertion. Such a test is passed by rhetorical questions. We can see this in many different ways.

Witness that a rhetorical question like (111) is compatible with disavowing knowledge. A discourse like (112) should be infelicitous similar to how Moorean discourses are infelicitous if the rhetorical question represents knowledge. It is not infelicitous,

though.

- (112) Can you do anything right? I genuinely do not know. I've only ever watched you mess-up.

The rhetorical question is interpreted as a exasperated complaint like it was before, and the remainder of the discourse serves to elaborate upon the speaker's frustration. Similarly, rhetorical questions are not associated with a particular strength of epistemic position.

- (113) Can you do anything right?
 (114) You cannot do anything right.
 (115) You, I think, cannot do anything right.

Were a rhetorical question like (113) an assertion, it would represent the speaker as knowing. If it represented the speaker as knowing, (113) would be as strong as (114) and stronger than the hedged (115). That is not what the examples illustrate. To the extent that (113) can be interpreted such that it is associated with an epistemic position, the position is actually weaker than (115). Finally, rhetorical questions do not make the speaker liable to censure or blame in the way that assertions are taken to make speakers liable.

- (116) Who thinks that ticket is a winner?

Assertions about tickets being losers in a fair lottery are defective. Conversational participants are entitled to feel resentment for the speaker saying what she does not know. Rhetorical questions do not generate the same normative response. A rhetorical question like (116) conveys the speaker judges a particular ticket to be a loser. However, it is not defective; no resentment is entitled.

I make no attempt to fully explain rhetorical questions. That is beyond the scope of the dissertation.²⁷ Nevertheless, what has been shown brings them into view enough

²⁷Most explanations for why rhetorical questions have assertoric-like effects derive those effects semantically. See Han (2002), van Rooy (2003), and Rohde (2006), for example. To the extent that we have a semantic explanation for rhetorical questions, we do not stand in need of an explanation from a theory of assertion.

to justify the conclusion that they are not uses of sentence representing the speaker as knowing what she said. They are not assertions. Rhetorical question are not therefore a threat to the eliminativism I advocate.

The final case of a non-declarative assertion to be examined is a subsentential utterance. To illustrate, I focus on a variety known as a FRAGMENT ANSWER. A fragment answer is a reply to a question that consists of mere word or phrase as opposed to a full declarative.

(117) (A) Who DJ'ed?

(B) Whiz.

The reply in (117B) is the word *Whiz* and yet it is received by participants as if the speaker had used the unqualified declarative *Whiz DJ'ed*. Unlike rhetorical questions, subsentential utterances show all the signs of knowledge representation. (117B) would be Moorean absurd if continued with *But I don't know that Whiz DJ'ed*. The challenge *You don't know that!* is also felicitous. As a result, subsentential utterances spell trouble for any account of assertion requiring it to be tokened by the use of a declarative (Stainton, 1996). Correspondingly, they pose a problem for any attempt to eliminate assertion that cleaves too closely to declaratives.

Two leading explanations for subsentential utterances such as (117B) are on offer. The first explanation is that subsentential utterances are elliptical. Though only the word *Whiz* is pronounced, an entire declarative is present in the syntax though elided (Merchant, 2004). The second explanation owed to Stainton (2006) opposes the first explanation by holding that what you see is all that is present in the syntax. A solitary word or phrase is received by participants as something more, according to Stainton, through a process of pragmatic enrichment.

Equipped with either explanation, subsentential utterances are no obstacle. To begin with, consider an ellipsis-based explanation. If a subsentential utterance is silently an entire independent declarative, it is no stretch to maintain that it is silently an independent declarative containing an overt parenthetical *I know* in its left periphery. The silent syntax already needs to contain a left periphery to host the declarative mood

morpheme as opposed to a polar interrogative morpheme. Positing a covert parenthetical comes at little to no additional cost.

Consider an enrichment-base explanation of subsentential utterances next. A solitary word or phrase gets used that falls short of being or determining a proposition in a context. That prompts participants to seek out a way to complete it. As Stainton (2006, 157) sees it, “The context makes salient an object, property, or what-have-you, and. . . the hearer notices this non-linguistic thing, and combines it with the content of the thing uttered.” Once that composition is complete, the hearer has produced a proposition. Think about (117B). Participants are only told *Whiz*. Then the context makes salient the activity of DJ’ing such that when participants seek out a completion they build the proposition that *Whiz* DJ’ed.

Stainton’s explanation makes a proposition the goal of enrichment. For reasons we saw in §3.2, it is therefore inadequate as an explanation of subsentential utterances. Since the meaning of a tense phrase is a proposition and tense phrases can be in both declaratives and polar interrogatives, the hearer needs to enrich a solitary word like *Whiz* into more than a proposition. A hearer needs to enrich it into the meaning of full clause type. Otherwise, the hearer would not settle whether the enriched meaning is a proposition as if the expression were a declarative or a set of propositions as if it were a polar interrogative. The mood morphemes—*Q* and *D* from §3.2—settling this choice live in the left periphery. So enrichment requires considering the semantic contributions of peripheral operators. As a result, it is again no stretch to maintain that hearers compose the proposition they have built from context with the multidimensional meaning provided by a parenthetical.

Here is one final point about subsentential utterances. Though I know of no discussion of subsentential utterances in a language with grammatically obligatory evidentials, it is reasonable to assume that such languages tolerate subsentential utterances as well. Since the grammar requires the presence of an evidential in a declarative, subsentential utterances will therefore either be full declaratives that elide evidentials along with everything else or enriched utterances whose enrichment includes the semantic contribution of an evidential. The parenthetical proposal takes cues from such

languages. So what we should expect of subsentential utterances in a language with evidentials is what we should expect of English.

In summary, none of the examples of putative non-declarative assertions prevent assertion from being supplanted. Since each was handled different, a general play-book for handling putative cases of non-declarative assertions is produced. Either the example is like a gesture and can be given multidimensional meaning akin to an declarative with a covert parenthetical, the example is like a rhetorical question and thereby a non-assertion by lacking knowledge representation, or the example can be understood as being completed into the meaning of an declarative with a covert parenthetical.

3.9 Conclusion

Let's reconsider the ground that has been covered. I have argued that the speech act of assertion can be supplanted with parentheticalism, a brazen view that many unqualified declaratives contain covert *I know* parentheticals. What recommends parentheticalism is that it explains what a theory of assertion otherwise explains (§3.6) while solving the problems that confront semantic explanations of assertoric force that trace it back to declarative mood (§3.7).

Parentheticalism might strike some readers as too brazen. They might charge that it takes the parallels between qualified and unqualified declaratives too seriously. Maybe and perhaps. But I submit that we have not taken these parallels seriously enough. Looking back at English with grammaticized evidentiality in view and with a rigorous way to understand non-truth-conditional meaning in hand, parentheticalism deserves consideration as an alternative explanation that allows us to dispense with assertion.

3.10 Appendix

3.10.1 Multidimensional \mathcal{L}_{TU}

The system \mathcal{L}_{TU} is owed to Gutzmann (2015) and builds upon the multidimensional semantics developed by Potts (2004) and refined by McCready (2010). In what follows, I offer a truncated account of \mathcal{L}_{TU} interspersed with commentary. Readers wanting the whole story should consult Gutzmann. The types of \mathcal{L}_{TU} are the usual suspects plus use-conditional types.

(A1) TRUTH-CONDITIONAL TYPES

- (A) e, t, s are basic truth-conditional types.
- (B) If σ and τ are truth-conditional types, then $\langle \sigma, \tau \rangle$ is a truth-conditional type.

(A2) USE-CONDITONAL TYPES

- (A) u is the basic use-conditional type.
- (B) If σ is any type and τ is a use-conditional type, then $\langle \sigma, \tau \rangle$ is a use-conditional type.

The vocabulary of \mathcal{L}_{TU} consists of the truth-conditional connectives $\neg, \vee, \wedge, \rightarrow$, and a few special elements.

(A3) MULTIDIMENSIONAL VOCABULARY

- (A) Use-conditional conjunction: \odot
- (B) Triviality elements: $T_{\langle s, t \rangle}, U_u$

Use-conditional conjunction coordinates only expressions of type u . The purpose of the triviality elements will become clearer soon, but, roughly, their role is to provide trivial content to expressions that have non-trivial content in only one dimension. In other words, an expression with non-trivial use-conditional meaning carries trivial truth-conditional content and *vice versa*.

The interpretation function is $\llbracket \cdot \rrbracket^c$, where c is the index for context. The interpretations of the new vocabulary elements is provided in (A4). As foreshadowed, W and C

receive trivial interpretations from $\llbracket \cdot \rrbracket^c$: T denotes the set of worlds and C denotes the set of contexts.

$$(A4) \quad (A) \llbracket \phi \odot \psi \rrbracket^c = \llbracket \phi \rrbracket^c \cap \llbracket \psi \rrbracket^c.$$

$$(B) \llbracket T \rrbracket^c = W.$$

$$(C) \llbracket U \rrbracket^c = C.$$

Use-conditional conjunction is merely set intersection. Given that expressions of type u denote sets of contexts, \odot forms a set of contexts that have the conditions from the two use-conditional meanings coordinated.

The semantic value of an expression is three-dimensional. Between the t -dimension and u -dimension lies the s -dimension. The s -dimension is needed to facilitate the compositional interaction between the other two dimensions. It stores content that is still active for the calculation of use-conditional content. As (A5) displays, the t -dimension and the s -dimension are separated by ' \diamond ' while the s -dimension and u -dimension are separated by ' \bullet '.

$$(A5) \quad \underbrace{t\text{-dimension}}_{t\text{-content.}} \diamond \underbrace{s\text{-dimension}}_{u\text{-active content.}} \bullet \underbrace{u\text{-dimension}}_{u\text{-saturated content.}}$$

The dedicated interpretation functions introduced in §3.5 just give the interpretation of a single dimension for a semantic value. Their relation to the general interpretation function is this: $\llbracket \cdot \rrbracket^c = \llbracket \cdot \rrbracket^t \diamond \llbracket \cdot \rrbracket^s \bullet \llbracket \cdot \rrbracket^u$.

To simplify the lexicon by not giving every expression a three-dimensional meaning when often trivial content occupies a dimension or two, Gutzmann (2015) opts for what he calls LEXICAL INSERTION RULES. These rules are a principled means of extending lexical entries into three-dimensional meanings. He has nine insertion rules but I detail two.

$$(A6) \quad \text{RULE FOR PURE TRUTH-CONDITIONAL EXPRESSIONS}$$

$$\alpha \Rightarrow \alpha \diamond \alpha \bullet U, \text{ if } \alpha \text{ is a truth-conditional type.}$$

$$(A7) \quad \text{RULE FOR FUNCTIONAL SHUNTING EXPRESSIONS}$$

$$\alpha \diamond \beta \Rightarrow \alpha \diamond \beta \bullet U, \text{ if } \alpha \text{ is of truth-conditional type and } \beta \text{ is a non-basic use-conditional type.}$$

Consider (A6). It grows lexical entries specifying only content in the t -dimension into three-dimensional meanings with trivial u -meaning. Note also that what is in the t -dimension is duplicated into the s -dimension. As Gutzmann (2015, §4.4) discusses, duplication in the s -dimension enables a simplification of the composition rules. (A7) adds trivial content to the u -dimension for lexical entries which specify non-trivial content only in the t and s -dimensions.

While Gutzmann (2015) has a handful of composition rules, we only need two of them. In (A8), composition in the t and s -dimension is type-driven function application. What happens in the u -domain is different. Application there is always use-conditional conjunction.

(A8) MULTIDIMENSIONAL APPLICATION

$$\frac{\alpha_1 : \langle \sigma, \tau \rangle \blacklozenge \alpha_2 : \langle \rho, \nu \rangle \bullet \alpha_3 \quad \beta_1 : \sigma \blacklozenge \beta_2 : \rho \bullet \beta_3}{\alpha_1(\beta_1) : \tau \blacklozenge \alpha_2(\beta_2) : \nu \bullet \alpha_3 \odot \beta_3} \text{MA}$$

(A9) USE-CONDITIONAL ELIMINATION

$$\frac{\alpha_1 : \langle \sigma, \tau \rangle \blacklozenge \alpha_2 : \langle \rho, u \rangle \bullet \alpha_3 \quad \beta_1 : \sigma \blacklozenge \beta_2 : \rho \bullet \beta_3}{\alpha_1(\beta_1) : \tau \blacklozenge \alpha_1(\beta_1) : \tau \bullet \alpha_3 \odot \beta_3 \odot \alpha_2(\beta_2) : u} \text{UE}$$

Next up is (A9). In the t -dimension, business is usual. But when all of the arguments of a complex expression are saturated in the s -dimension to produce a meaning of type u , that use-conditional content is shuttled to the u -dimension where it is conjoined with the other use-conditional content. With these resources in hand, we turn to the parentheticals.

3.10.2 Lexical entries

Our goal is to derive the use-conditional meaning of a parenthetical attitude from its syntactic position. To do that, we start off with a non-committal semantics for an attitude like *think*.

$$(A10) \llbracket \text{think} \rrbracket^c = \lambda p. \lambda x. \text{THINK}(x)(p) : \langle \langle s, t \rangle, \langle e, \langle s, t \rangle \rangle \rangle$$

An initial problem with the entry in (A10) is that the order of the lambda-binders does not play nice with parenthetical positioning where the attitude composes with a first-person subject first. To solve that, we introduce ‘ \star ’, a purely combinatoric type-shifter,

that swaps the order of the lambda binders in an entry like (A10). That delivers us an entry like (A11).

$$(A11) \llbracket \star \text{ think} \rrbracket^c = \lambda x. \lambda p. \text{THINK}(x)(p) : \langle e, \langle \langle s, t \rangle, \langle s, t \rangle \rangle \rangle$$

Assuming the semantics for indexicals of Kaplan (1989), $\llbracket I \rrbracket^c = c_S$, where c_S is the coordinate of context that is the speaker. Then the semantic value of the complex parenthetical by MA is $\lambda p. \text{THINK}(c_S)(p)$ of type $\langle \langle s, t \rangle, \langle s, t \rangle \rangle$. That meaning needs to be fleshed out as a three-dimensional meaning. By lexical insertion rule (A6), the parenthetical becomes (A12).

$$(A12) \llbracket I \star \text{ think} \rrbracket^c = \\ \lambda p. \text{THINK}(c_S)(p) : \langle \langle s, t \rangle, \langle s, t \rangle \rangle \blacklozenge \lambda p. \text{THINK}(c_S)(p) : \langle \langle s, t \rangle, \langle s, t \rangle \rangle \bullet U$$

Now is where the derivation gets interesting. I introduce ‘ \otimes ’ as a DIMENSION SHIFTER. It performs two jobs: it erases content from the t -dimension and introduces unsaturated u -content into the s -dimension. Where \mathcal{E} is a variable for expressions of type $\langle \langle s, t \rangle, \langle s, t \rangle \rangle$, \otimes receives this semantics.

$$(A13) \llbracket \otimes \rrbracket^c = \\ \lambda \mathcal{E}. T : \langle \langle \langle s, t \rangle, \langle s, t \rangle \rangle, \langle s, t \rangle \rangle \blacklozenge \lambda \mathcal{E}. \lambda p. \{c: \mathcal{E}p \text{ in } c_w\} : \langle \langle \langle s, t \rangle, \langle s, t \rangle \rangle, \langle \langle s, t \rangle, u \rangle \rangle \\ \bullet U$$

In the t -dimension, \otimes is a constant function from any $\langle \langle s, t \rangle, \langle s, t \rangle \rangle$ expression to the trivial content. But in the s -dimension, it takes a $\langle \langle s, t \rangle, \langle s, t \rangle \rangle$ expression into a function from a proposition to a use-conditional content. The combined meaning of (A12) and (A13) is (A14).

$$(A14) \llbracket \otimes I \star \text{ think} \rrbracket^c = \\ T \blacklozenge \lambda p. \{c: \text{THINK}(c_S)(p) \text{ in } c_w\} : \langle s, t \rangle, u \rangle \bullet U$$

From here, the multidimensional meaning advertised in §3.5 is delivered by the lexical insertion and composition rules. Suppose a proposition like $\{w: \text{Whiz DJ'ed in } w\}$ is the truth-conditional meaning of the tense phrase for the main clause beneath the

parenthetical. Then by lexical insertion rule (A6), the meaning of the tense phrase is filled out thusly.

$$(A15) \llbracket \text{Whiz DJ'ed} \rrbracket^c = \{w: \text{Whiz DJ'ed in } w\} \blacklozenge \{w: \text{Whiz DJ'ed in } w\} \bullet U$$

From there, (A15) composes by MA with the dimensionally shifted parenthetical (A14) to yield the following.

$$(A16) \llbracket \text{Whiz DJ'ed}, \otimes I \star \text{think} \rrbracket^c = \\ \{w: \text{Whiz DJ'ed in } w\} \blacklozenge \{c: \text{THINK}(c_S)(\{w: \text{Whiz DJ'ed in } w\}) \text{ in } c_w\} \bullet \\ U$$

We are now in a position to use UE, the use-conditional elimination rule, because we have a fully saturated use-conditional content in the s -dimension. By UE, (A16) becomes (A17).

$$(A17) \llbracket \text{Whiz DJ'ed}, \otimes I \star \text{think} \rrbracket^c = \\ \{w: \text{Whiz DJ'ed in } w\} \blacklozenge \{w: \text{Whiz DJ'ed in } w\} \bullet \{c: \text{THINK}(c_S)(\{w: \\ \text{Whiz DJ'ed in } w\}) \text{ in } c_w\} \odot U$$

(A17) differs from (A16) in that the content of the t -dimension is duplicated in the s -dimension and the use-conditional content is shuttled from the s -dimension to the u -dimension. The duplication into the s -dimension has no discourse-level effect. Since $\{c: \text{THINK}(c_S)(\{w: \text{Whiz DJ'ed in } w\}) \text{ in } c_w\} \odot U = \{c: \text{THINK}(c_S)(\{w: \text{Whiz DJ'ed in } w\}) \text{ in } c_w\}$, the u -dimension simplifies to $\{c: \text{THINK}(c_S)(\{w: \text{Whiz DJ'ed in } w\}) \text{ in } c_w\}$. The result is the advertised interpretation from §3.5 derived in \mathcal{L}_{TU} with the help of only two resources: a combinatoric type-shifter \star and a dimension-shifter \odot that lives in the left periphery.

Chapter 4

The meaning/force interface

4.1 Introduction

Some but not all declaratives can represent the speaker as knowing the proposition expressed. This chapter asks two questions about which declaratives have knowledge representation as an effect. The first question concerns when knowledge representation occurs.

INTERFACE CONDITIONS QUESTION (ICQ)

For any speaker S and declarative sentence d expressing an at-issue proposition p in a context c , under what conditions C does S 's use of d in c represent S as knowing p in c ?

While an answer to ICQ identifies which declaratives associate with knowledge representation, it does not identify the source or grounds of knowledge representation. Accordingly, the second question seeks an explanation for whatever answer is given to the first question.

INTERFACE EXPLANATION QUESTION (IEQ)

For any speaker S and declarative sentence d expressing an at-issue proposition p in a context c , why does S 's use of d in c represent S as knowing p in c under conditions C ?

We arrive at a complete view of knowledge representation only after both questions are answered. Assuming with tradition that knowledge representation happens because an assertion was performed, answering ICQ and IEQ takes the form of explaining how the use of a declarative in a context has assertoric force. So answering them

is a necessary component of a theory of assertion. However, breaking with tradition equally requires that the two questions be answered. Otherwise it has not been shown that assertion as an act-type is unnecessary for explaining knowledge representation as a component of linguistic practice.

A question like ICQ tolerates three answers: *never*, *always*, and *sometimes*. We can eliminate the first.¹ As shown in §2, KRH, the knowledge representation hypothesis, is necessary to explain a wide range of data about what speakers do with declaratives in a context. We can also eliminate the second having seen that qualified declaratives like *Whiz DJ'ed, I think* do not represent the speaker as knowing.² That leaves *sometimes*, which I call a RESTRICTED ANSWER. In what follows, I evaluate various restricted answers to ICQ found in the literature.

Restricted answers differ in whether they are based in features of action as opposed to meaning. Importantly, these options differ in how they can answer IEQ. An act-based answer is limited to specifying features of action as the source or grounds of knowledge representation whereas a meaning-based answer can only identify features of meaning. Recalling the locutionary/illocutionary distinction, we can put the difference this way: meaning-based restrictions locate the source of knowledge representation in the locutionary act whereas act-based restrictions locate knowledge representation higher in the illocutionary act.

This chapter defends that parentheticalism offers the best answers to ICQ and IEQ. It begins in §4.2 by elaborating how Moore's paradox provides an adequacy test for an answer to ICQ. Then various restricted answers are considered in §4.3. I defend that an act-based answer cannot pass the Moorean test without failing to give an answer to IEQ. In §4.4, it is argued that a semantic restriction can answer both ICQ and IEQ. But

¹Cappelen (2011) can be read as giving a *never* answer to ICQ due to the doubts he expresses about a theory of assertion having uniform data to explain.

²As far as I can tell, nobody has defended the second answer. Sometimes Dummett (1973) is read this way, but this is a misreading. Dummett holds that assertoric force is determined by extrasemantic convention, but he does not maintain that the convention links every use of a declarative to assertion. Sometimes linguists not preoccupied with the effects of declaratives in particular will model all declaratives as updating the common ground in the style of Stalnaker (1978). For example, Portner (2004) does as much while offering a general view of clause types with special attention to the semantics of imperative clauses. But it would be uncharitable to read him as defending that this effect holds of declaratives broadly.

§4.5 finishes the argument by showing that parentheticalism offers a superior semantic restriction.

4.2 Moorean diagnostic

An answer to ICQ makes two predictions: when the use of a declarative in a context represents the speaker as knowing and when the use of a declarative in a context does not represent the speaker as knowing. As a result, we can assess answers according to whether these predictions are born out. That can be done by returning to the data that knowledge representation is needed to explain. If an answer predicts that knowledge representation occurs in a context c but instances of the data do not occur in c , the answer overpredicts. If an answer similarly predicts that knowledge representation does not occur in c but instances of the data do occur in c , the answer underpredicts. A minimal, necessary condition on answers is that they do not over or underpredict the occurrence of knowledge representation.

The lesson from §2 is that there is much that knowledge representation explains. This section elaborates how Moore's paradox facilitates a test for assessing the predictions generated by restrictive answers to ICQ. The test is developed and explained in §4.2.1. Objections to using Moore's paradox as the basis of an adequacy test are answered in §4.2.2.

4.2.1 The diagnostic explained

Moore (1942, 1962) taught us that (118) is defective. KRH explains why. The first conjunct—that Whiz DJ'ed—represents the speaker as knowing that Whiz DJ'ed. The proposition expressed by the second conjunct therefore contradicts the position represented in the first.

(118) #Whiz DJ'ed, but I do not know that.

We can decompose a Moorean absurd discourse into two components: a statement of p anchored to a perspective which has its knowledge represented, the STATEMENT COMPONENT, and a disavowal of speaker knowledge in p , the DISAVOWAL COMPONENT.

Not all discourses consisting of these components produce absurdity. I identify three extra conditions that need to be fulfilled.³

To start, we can find two conditions by making two observations about the disavowal of speaker knowledge illustrated in (118). The disavowal is in the present tense as opposed to the past and the verb is in the indicative mood as opposed to the subjunctive. Change either feature of the disavowal and the absurdity disappears because there is no longer inconsistency between the knowledge representation and the disavowal. Examples (119) and (120) show how moving to the past tense eliminates absurdity.

(119) #Whiz DJ'ed, but I do not know that. PRESENT TENSE

(120) Whiz DJ'ed, but I did not know that. PAST TENSE

The first conjunct represents the speaker as knowing in that context that Whiz DJ'ed and that is wholly consistent with the second conjunct stating that the speaker did not know that Whiz DJ'ed at a time prior to the speech event. Similarly, examples (121) and (122) illustrate how moving from the indicative to the subjunctive mood eliminates the absurdity.

(121) #Whiz DJ'ed, but I do not know that. INDICATIVE MOOD

(122) Whiz DJ'ed, but I would not know that. SUBJUNCTIVE MOOD

The appearance of *would* in (122) ensures that the world at which the second conjunct is evaluated is different from the world of the speaker's context at which the first conjunct is evaluated. Consistency follows.

Accordingly, discourses exhibit Moorean absurdity only if they satisfy the schemas $\lceil p, \text{ but I do not know } p \rceil$ or $\lceil \text{I do not know } p, \text{ but } p \rceil$. However, satisfying either of these schemas is still not sufficient. Tense and verbal mood have the benefit of being

³Note that limiting focus to multiclausal discourses already does important work. It explains why speakers toggling between multiple conversations can say *Whiz DJ'ed* in one conversation and *I do not know that Whiz DJ'ed* in another without infelicity (Hinchman, 2013). By toggling, the speaker never builds a discourse. It also explains why sentences like *I falsely believe that p* that can have an interpretation as *p* and *I believe non-p* and not be defective (Crimmins, 1992). They are not defective because they are not discourses.

overt; neither feature can be changed in the disavowal without failing to instantiate the schemas. But there are other features of the sentences that can be changed in covert ways to which we need to be attentive.

In particular, the statement component of a discourse can be anchored in a context to a perspective other than the speaker's. Wittgenstein (1980, §§486-7) gives the example of a railway announcer who is required to report the arrival of a train they do not believe will arrive.⁴ The announcer can report the arrival time and follow that announcement with a disavowal like *Personally, I do not believe it* without producing absurdity. A natural explanation is that the report of the train's arrival does not represent their own epistemic position—it represents the railway's. The use of the adverb *personally* helps to mark the contrast between positions. As a result, no absurdity is produced because there is no contradiction between the railway representing themselves as knowing through the announcer as their spokesperson and the announcer disavowing their own knowledge.

Let's remain neutral on how the use of a declarative in a context is anchored to perspective. However we explain anchoring, Moorean absurdity requires that the perspective be the same across the entire discourse. I call this condition ANCHOR IDENTITY. Put more elaborately, the perspective to which the statement component of a discourse is anchored in a context *c* needs to be identical to the perspective to which the disavowal component is anchored in *c*. Since the disavowal component contains the first-person indexical *I*, the perspective of the statement component in *c* needs to be the same as what *I* denotes in *c*.

We now have the resources to develop a precise diagnostic for assessing answers to ICQ. With the three conditions in view, discourses exhibit Moorean absurdity if and only if they satisfy the schemas $\lceil p, \text{ but I do not know } p \rceil$ or $\lceil \text{I do not know } p, \text{ but } p \rceil$ and anchor identity obtains between the two components. Let's say that the use of a

⁴See also Fileva and Brakel (forthcoming). They present allegedly non-absurd examples like *The Grand Canyon Skywalk is safe, but I do not believe it is safe* where the statement component of the discourse is anchored to the epistemic position of a third-person perspective but the disavowal component reflects the position of a first-person perspective. In contrast to Wittgenstein's example, I find their cases to still be defective.

declarative in a context c with at-issue content p is M-EXTENDIBLE when a discourse can be formed by following or prefacing the declarative with a disavowal of speaker knowledge in p and that discourse exhibits Moorean absurdity in c . M-extendibility is our diagnostic.

MOOREAN DIAGNOSTIC

An answer to ICQ overpredicts if and only if the answer predicts the presence of knowledge representation in a context c but the declarative is not M-extendible in c . Likewise, an answer to ICQ underpredicts if and only if the answer predicts the absence of knowledge representation in c but the declarative is M-extendible in c .

Most declaratives are M-extendible. And yet, not all of them are. That variation is what makes M-extendibility useful in a test.

I provide an example that should now be familiar to the reader. Parentheticals like *I think* and *I heard* that denote a doxastic attitude weaker than knowledge prevent a declarative from being M-extendible.⁵ Compare the felicity of discourses (123) through (125) below.

(123) #Whiz DJ'ed. But I don't know that.

(124) Whiz DJ'ed, I believe. But I don't know that.

(125) Whiz DJ'ed, I think. But I don't know that.

(124) and (125) are felicitous when followed by a disavowal of speaker knowledge fitting our earlier requirements; (123) is not felicitous. Using M-extendibility as our guide to when the use of a declarative represents the speaker as knowing the at-issue proposition expressed, we can conclude that knowledge representation is absent when a parenthetical is present to contribute not-at-issue content stating that the speaker occupies a position weaker than knowledge. The broader lesson is that answers to ICQ

⁵Parentheticals are not the only example. Rising intonation provides another. If the statement component receives rising intonation as opposed to falling intonation, the discourse is no longer M-extendible. See Gunlogson (2003) and Stephenson and Malamud (2015) for relevant discussion. To streamline discussion, I ignore intonation.

will overpredict if they predict that qualified declaratives are M-extendible. Parentheticals also bring into greater focus how to answer IEQ. To understand the cause of knowledge representation in a context, we need to understand why knowledge representation is not present when parentheticals are. Answers that do not facilitate such understanding are incomplete.

4.2.2 An objection to the diagnostic

Moore's paradox is widely taken to be one of the explanatory responsibilities of a theory of assertion.⁶ However, we will benefit from considering an alternative allocation of explanatory responsibility before setting out with M-extendibility as our diagnostic for knowledge representation.

Moorean discourses are not just defective to say. As Sorensen (1988) first noted, they are defective to believe. A person who believes that Whiz DJ'ed and that they believe that Whiz didn't DJ does something defective as well. They believe irrationally. So we need at least two explanations: an explanation of why Moorean discourses are defective to say and an explanation for why they are irrational to believe. Some maintain that we only need the latter explanation to explain both varieties of Moorean absurdity in a two-for-one deal. In this vein, Shoemaker (1995, 227) defends the following principle.

PRIORITY THESIS

If you have an explanation of why a putative content could not be coherently believed, you thereby have an explanation of why it cannot be coherently asserted.

The priority thesis has the consequence that Moorean absurdity is not declarative data in the sense of §2. Since an explanation of Moorean absurdity in speech comes for free

⁶Moore (1942, 1962) himself took his absurdity to be limited to speech. In giving an act or meaning-based explanation, he is followed by Wittgenstein (1980), Black (1952), Collins (1996), Jones (1991), and numerous others in the recent norm-based turn to assertion. See Green and Williams (2007) for a survey of various solutions.

once an explanation of Moorean absurdity in thought has been secured, we only need an explanation of absurdity in thought.

But the priority thesis and others like it are false because Moorean discourses are defective in a manner that is distinctively linguistic.⁷ That distinctiveness becomes noticeable once we entertain discourses that are merely irrational to believe. The following illustrate.

(126) I should not DJ, but I will anyway.

(127) All of the available evidence indicates that Whiz DJ'ed. But I refuse to believe that.

An agent who believes (126) or (127) is not meeting the demands of rationality. Neither discourse is defective linguistically, however. Both can be and often are said. It is easy to imagine a speaker, for example, who does not care whether they should DJ and says (126) to a participant who has been trying to reason them out of DJ'ing. In saying as much, the speaker is announcing that they will proceed with their plans regardless of whether those plans are rational or not. Similarly, Atlas (2007) notes that contradictions like (128) are irrational to believe even though they are not defective to say.

(128) Whiz DJ'ed. It is false that Whiz DJ'ed.

Moorean absurdity in speech is therefore sufficiently distinct from Moorean absurdity in belief that it requires its own explanation.

Another reason to give Moorean absurdity in speech its own explanation is that it is an instance of a much broader linguistic phenomenon that is not tied exclusively to belief (Searle and Vanderveken, 1985). Exactly how to demarcate the phenomenon is an interesting question I do not take up here.⁸ For our purposes, it suffices to note that

⁷For detailed criticism of Shoemaker's defense of the priority thesis, see Albritton (1995), Rosenthal (1995), Larkin (1999), Atlas (2007), and Williams (2013).

⁸Searle and Vanderveken (1985) suggest that a Moorean-like absurdity is produced whenever a discourse consists of an act and a denial of the act's sincerity conditions. See also Woods (2018). The strategy recommended by the multidimensional semantics from §3 is that Moorean-like absurdity takes place whenever a discourse has a sentence whose *t*-meaning contradicts the *u*-meaning of another sentence.

similar absurdity is exhibited by other clause types. The following examples are owed to Woods (2018).

(129) #Get me a beer. But I do not want/prefer you to get me a beer.

(130) #Boo Yankees! But I have no negative feelings towards the Yankees.

In (129), an imperative clause is used that represents the desire or preference that the addressee retrieve a beer for the speaker. An absurd discourse is produced when the speaker follows the sentence with a disavowal of that desire or preference. The discourse in (130) starts with an exclamation that expresses the speaker's negative attitude towards the Yankees. It becomes absurd once it is followed with the speaker denying they have that negative attitude.

Going forward, I take no stance on how to explain why Moorean discourses cannot be rationally believed. I assume only that Moorean discourses are defective in speech such that an act-based or meaning-based explanation of KRH properly accounts for defectiveness.

4.3 Act restrictions

Let's consider some restrictions. The restrictions discussed in this section are act-based restrictions found or reconstructed from the current literature on assertion. The most common shortcoming is mistakenly answering ICQ by over or underpredicting knowledge representation (§4.3.1-§4.3.4). Towards the end I will consider a brute answer to ICQ. Its problem will be that it leaves us empty-handed for answering IEQ (§4.3.5). Though these failures do not establish that no act-based restriction could plausibly settle ICQ and IEQ, they supply us with a firm inductive basis to seek a meaning-based answer to the questions.

4.3.1 Intentional restrictions

Many differentiate the mere use of a declarative from an assertion according to what the speaker intends.⁹ That differentiation enables a restrictive answer to ICQ based in what the speaker intends with their use of a declarative in a context. Let's call this an INTENTIONAL RESTRICTION. The account of assertion in Bach and Harnish (1979, 42) helpfully illustrates:

In uttering *e*, [a speaker] *S* asserts that *P* if *S* expresses: (i) the belief that *P* and (ii) the intention that [a hearer] *H* believes *P*.

Though their account makes belief as opposed to knowledge the epistemic position expressed, their account is easily modified to be explanatory in the way required by the data canvassed earlier in §2. We merely adjust condition (i) to state that knowledge as opposed to belief is the attitude expressed.

A benefit of intentional answers is the ease with which they enable an answer to IEQ. Knowledge representation is caused when a speaker's belief and intention are expressed. But the informativeness of an intentional answer to both questions then depends on an account of the expression-relation. Some decline to offer an account of expression altogether.¹⁰ Others give a psychological account. Bach and Harnish (1979, 17) take this route.

For *S* to express an attitude is for *S* to R-intend the hearer to take *S*'s utterance as reason to think *S* has that attitude.

An R-INTENTION is a reflexive intention: an intention to get the hearer to respond in

⁹Grice (1989), Strawson (1964), Schiffer (1972), Bach and Harnish (1979), Loar (1981), and Harris (2014) are representative. When the going gets tough, those who fall back on intention include Davidson (1984), Searle and Vanderveken (1985), and Dummett (1996).

¹⁰See Turri (2011, 42), for example. Turri's basis for declining is that we have a pretheoretic handle on what the expression-relation is as shown by our wide use of the term. But there is no reason to think that one notion does the work in each of these settings. Consider talk of a declarative expressing a proposition in a context. That use of *expression* is easily eliminated. A declarative expresses a proposition in a context insofar as a proposition is or is determined by the compositional semantic value of a declarative in a context. Accordingly, *express* and cognate terms are just a convenient speaker-centric shorthand for talking about a sentence's content in a context. But that eliminable use of *expression* is surely not the one Turri has in mind.

a particular way by means of recognizing the speaker's intention to get the hearer to respond in that way. Plugged into the earlier characterization of assertion with the fix to condition (i) mentioned, we get the following restrictive answer to ICQ based in intentions:

The use by a speaker S of a declarative d expressing a proposition p in a context c with a hearer H is an assertion only if (i) S R-intends H to take S 's use of d in c as a reason to think that S knows p and (ii) S intends H to know p .

The above definition provides answers to both ICQ and IEQ. Admirably, it provides clear predictions about when the use of a declarative does and does not associate with knowledge representation in a context.

Unfortunately, an intentional answer is fated to underpredict. It underpredicts by narrowing the range of declaratives associated with knowledge representation. The view discussed from Bach and Harnish (1979) still illustrates. Without difficulty, we can imagine situations where one or more of the two intentions required in conditions (i) and (ii) are absent. Maybe the speaker has the first intention but not the second because she wants to state for the record what her position is in a room full of people who vehemently disagree. Or, maybe she has neither. Borrowing an example from Alston (2000, 48), perhaps the speaker does not have hearer-directed intentions because her job is to announce train departure times in a busy station with people coming and going. In these settings, knowledge representation is predicted to not occur with the use of a declarative because an assertion was not performed. And yet, the declaratives are M-extendible.

4.3.2 Effects restrictions

Some take the difference between a mere use of a declarative in a context and a use with assertoric force to be determined by the use's effects. A related answer to ICQ could be attempted. Let's call this an EFFECTS RESTRICTION. The most widely known effects-based theory of assertion is owed to Stalnaker (1978, 2002, 2014). On his view,

the essential effect of assertion is growing the common ground. But such an effect cannot help us answer ICQ. As Stalnaker (1978) himself noted, speech acts other than assertion also update the common ground. So an answer to ICQ based in his essential effect would significantly overpredict.

Looking elsewhere, another effects-based theory is proposed by Jary (2010). The mere use of a declarative differs from assertion because assertion has a unique social component in expressing the speaker's belief or knowledge. According to Jary, attitude expression occurs only when the speaker is presented as the source of evidence for the proposition expressed. But Jary does not specify the conditions under which the speaker is presented as the source of evidence. Insofar as a speaker is represented as knowing the proposition expressed when she is presented as its source of evidence, Jary's proposal fails to give us an answer.

However, Jary does provide examples of when a speaker is not presented as a source of evidence. Of declaratives like (131) through (133), Jary (2010, 161) maintains that the speaker is not presented as a source of evidence because "witnessing the act itself either is, or is presented as, sufficient grounds for accepting the proposition expressed."

(131) I hereby offer my resignation.

(132) On my word, I'll never speak to Mark again.

(133) You will clean the latrines.

Jary's analysis of these sentences assumes that the use of a declarative cannot present the speaker as a source of evidence for the proposition expressed by the declarative when the act of using the sentence is transparent evidence for that proposition too. In other words, he assumes that the use of a declarative cannot provide two sources of evidence for the proposition it expresses.

However, Jary's assumption is false. Each of his examples is M-extendible even though witnessing the use of each sentence is still sufficient grounds for accepting the proposition expressed.

- (134) #I hereby offer my resignation. But I do not know that I hereby offer my resignation.
- (135) #On my word, I'll never speak to Mark again. But I do not know that, on my word, I'll never speak to Mark again.
- (136) #You will clean the latrines. But I do not know that you will clean the latrines.¹¹

To the extent that Jary's account at least identifies some uses as non-assertions, his account underpredicts knowledge representation by barring the possibility of multiply sourced uses of declaratives being assertions.

A clear fix would be to drop the prohibition on multiply sourced uses of declaratives. Though a participant can witness the truth of a proposition by observing the act in which that proposition is expressed, witnessing as much does not prevent the speaker from being presented as a source of evidence too. Then (131) through (133) would not mistakenly be identified as uses of declaratives in which the speaker does not represent herself as knowing. Dropping the prohibition, though, brings us back to the first problem with trying to use his theory of assertion as the basis for a restrictive answer to ICQ. He does not otherwise specify when the use of a declarative has assertoric force.

4.3.3 Exception restrictions

The most common answer to ICQ found in the recent literature on assertion is what I call the EXCEPTIONS ANSWER. This answer maintains that every use of a declarative in a context represents the speaker as knowing except in those circumstances when they do not. As a result, the exceptions answer does not give a positive answer to ICQ. When it comes to understanding the interface between meaning and force, individual uses of declaratives are litigated on a case-by-case basis as to whether they are

¹¹In interpreting (136), hold fixed the meaning of *will* in each conjunct. Doing so ensures that the conditions on Moorean absurdity are satisfied. If a non-absurd reading can be accessed, the conditions are not being satisfied presumably because the first instance of *will* is interpreted deontically and the second temporally.

associated with knowledge representation.

An early example of this view is owed to Dummett (1973). He maintains that the link between the mere use of a declarative and an assertion is an extrasemantic convention. That extrasemantic convention specifies the condition under which assertoric force is had by a declarative. Strikingly, Dummett never spells out such conditions. He also has little to say about the uses that are non-assertions. He makes room for them, but does not distinguish them.

Another exceptions answer does not appeal to convention. Williamson (2000, 258) holds that knowledge representation is associated with the use of a declarative by means of some default. In other words, the use of a declarative by a speaker in a context represents the speaker as knowing the proposition expressed by the declarative in that context unless the default is overridden. Like Dummett on convention, Williamson has little to say about the default or how it is overridden beyond noting that parentheticals override (2000, 244). But Garcia-Carpintero (2004, 153-154) adds a little more specificity.

In a minimal context (a context without more information than that derived from the presumption that the participants know the language), that force would be unconditionally signified, all things considered; but the default assumption could be overridden in other contexts by an open-ended list of conditions: that the alleged assertion has been made after “once upon a time”, or after “let me remind you of the following”, or “therefore”, or in an exam, or includes parentheticals like “I surmise”.

What appears to motivate addition to the open-ended list of exceptions are intuitions about what speech act is being performed in a context. For example, *Let me remind you of the following* prefaces a speech act of reminding. Since acts of reminding are presumably regarded as non-assertions by Garcia-Carpintero, prefacing the use of a declarative as a reminder overrides the default.

The straightforward problem with a case-by-case approach is that it never delivers an answer to ICQ. The conditions under which the use of a declarative in a context represents the speaker as knowing the proposition expressed are never stated or detailed. For those who explain knowledge representation as a byproduct of assertoric force, adopting an exceptions answer means that the exact interface between meaning

and force remains a complete mystery. Each use of a declarative in a context needs to be individually considered to decide whether it belongs on the list or not. By never delivering an answer to ICQ, IEQ remains unanswered as well. We cannot inquire about the cause or source of knowledge representation under certain conditions if those conditions have not been identified to start with.

Another peril with a case-by-case approach is that many methods for adding a declarative to the list are unreliable at identifying the absence of knowledge representation. For example, intuitions about act-types—what Garcia-Carpintero (2004) relies upon—are unreliable. In all of the conditions he mentions with the exception of his prohibition against parentheticals, the declaratives are M-extendible. Walking into a classroom where an exam is happening does not stop it. Neither do the expressions he mentions.

(137) #Let me remind you of the following: Whiz DJ'ed. But I do know that Whiz DJ'ed.

(138) #Once upon a time, Whiz DJ'ed. But I do know that.¹²

(139) #Either Whiz or Riri DJ'ed. Riri did not. Therefore Whiz DJ'ed. But I do know that Whiz DJ'ed.

Each of the above discourses are Moorean absurd. For many, the extra linguistic material boosts the felt absurdity. A prime example is (139). Since the speaker represented themselves as knowing that Whiz DJ'ed on the basis of an argument by elimination where each premise they also represented themselves as knowing, disavowing knowledge that Whiz DJ'ed conflicts with the represented knowledge in the argument and its premises.

¹²A non-absurd interpretation of (138) is available if we violate anchor identity (§4.2). In particular, if we assume that the speaker is breaking from their perspective as the narrator to tell the audience what they know in another perspective, (138) is felicitous. Such an interpretation requires the first-person indexical *I* in the second conjunct to not refer to the same individual as the speaker of the first conjunct. Discourses like these are known as FREE INDIRECT DISCOURSES. For more on how such discourses shift the meanings of context-sensitive expressions like *I*, see Schlenker (2004), Sharvit (2008), and Hinterwimmer (2017).

4.3.4 Stipulative restriction

With the exception of intentional answers, every restrictive answer considered has one way to ensure that it passes the Moorean diagnostic: use M-extendibility to identify the conditions. For example, one could say that the default linking uses of declaratives to the act-type of assertion is overridden only when a declarative is no longer M-extendible. Or, one could propose that the rule or extrasemantic convention associates all declaratives that are M-extendible with knowledge representation. Pursuing such a line would not over or underpredict.

Let's call this a STIPULATIVE ANSWER. Using M-extendibility in this way does resolve ICQ. However, it is not informative. The Moorean diagnostic tracks the symptom but not the cause of knowledge representation. Accordingly, using the diagnostic to answer ICQ tells us when knowledge representation happens in a way guaranteed to pass the diagnostic, but it leaves us without resources to answer IEQ. When we turn to ask why parentheticals block M-extendibility, the stipulative answer to ICQ has nothing of value to offer.

4.4 Semantic restrictions

The failures of the act-based restrictions justify taking meaning-based restrictions seriously. I begin in §4.4.1 by discussing a view of the meaning/force interface owed to Searle (1969) and developed by Searle and Vanderveken (1985). It falls short. In §4.4.2, I consider ways to patch-up the account. The patched-up account can satisfyingly answer ICQ and IEQ but comes with an additional cost. §4.4.2 shows how parentheticalism avoids that cost.

4.4.1 Force-indicators

Searle (1969, 1979) regards speech acts as the basic unit of linguistic communication. As he sees it, a theory of natural language should be a unified theory of speech acts as opposed to a theory of meaning and a separate theory of action. He follows Frege (1892) by decomposing a speech act into two parts: CONTENT and FORCE. Building on

the earlier work of Searle, Searle and Vanderveken (1985, 12-20) decompose force into seven components.

ILLOCUTIONARY POINT

The purpose the achievement of which is essential to the act.

STRENGTH OF THE ILLOCUTIONARY POINT

The degree of strength with which the illocutionary point is achieved.

MODE OF ACHIEVEMENT

The special conditions under which the illocutionary point must be achieved.

The first three components are interrelated. A speech act has a point or purpose. That purpose might vary in illocutionary strength, which is a primitive notion for Searle and Vanderveken, and impose special conditions on the speaker or context for its achievement. The first three components capture as much. The remaining four add different conditions.

PROPOSITIONAL CONTENT CONDITIONS

The conditions on the propositional content imposed by the other components of force.

PREPARATORY CONDITIONS

The conditions that are necessary for the successful and nondefective performance of the act.

SINCERITY CONDITIONS

The psychological state a speaker must possess to sincerely perform the act.

STRENGTH OF THE SINCERITY CONDITIONS

The degree of strength of the psychological state a speaker must possess to sincerely perform the act.

Altogether, the seven components are what individuate speech acts. Two acts have the same force if and only if each of these seven components is the same. Any difference

among the components makes for a different speech act. However, speech acts may differ in kind or they may differ as a determinable differs from its determinate. For example, the speech act of reminding only differs from assertion in that the former has more preparatory conditions (1985, 185).

When it comes to explaining meaning, Searle (1969) maintains that there are exactly two options: expressions in context may contribute to the content of a speech act or indicate the act's force. An expression is a FORCE-INDICATOR when it indicates the setting of one or more of the seven components of force. As every complete sentence has at least one force-indicator device, every sentence at least partially indicates a component of the act being performed by the speaker. Examples of force-indicating devices include word order, intonational contour, punctuation, and the performative use of a verb like *swear* or *promise* (1969, 30).

Equipped with the category of a force-indicator, we can begin to answer the interface questions. ICQ can be partially answered by maintaining that the use of a declarative in a context does not represent knowledge if it contains force-indicators for an act other than assertion. Let's call this the SEARLEAN ANSWER. With such an answer, overpredicting knowledge representation is easily avoided. Parentheticals can be understood as devices for indicating either an act's sincerity condition or the strength of its sincerity condition. For example, *I think* indicates that the attitude required for sincerity is thinking as opposed to knowing. Then qualified declaratives will never be predicted to exhibit knowledge representation.

But the Searlean answer does not avoid underprediction. A sentence almost never contains enough force-indicators to indicate every component of force had by the act. Most acts only have their force partially indicated by the sentence used to perform them in a context. Since no acts have only partial force, something else determines the settings for the various components of an act's force. Declaratives are no exception. Though Searle and Vanderveken (1985, 2) are explicit that the declarative clause type is a force-indicator for assertion, such indication is either insufficient for setting the force components to those of assertion or defeasible. Noting that (140) can be both a prediction or a promise, Searle and Vanderveken (1985, 26) propose that context fills

in the gaps.

(140) I will come back in five minutes.

(141) #I will come back in five minutes. But I do not know/believe that I
will come back in five minutes.

As the next example (141) makes loud and clear, however, the variability of force for declaratives like (140) is enough to guarantee underprediction of knowledge representation. When (141) is a promise as opposed to a prediction, the sincerity condition requires the speaker to have future-directed intentions as opposed to knowing the proposition presented. A Searlean answer will mistakenly predict that (140) lacks knowledge representation in some contexts.

The Searlean answer will underpredict for an additional reason. Searle and Vanderveken provide very few details about the mechanics of context-sensitive force determination. But they write earlier that “Whether or not an utterance has a certain force is a matter of the illocutionary intentions of the speaker, but whether or not an illocutionary act with that force is successfully and nondefectively performed involves a good deal more than just his intentions; it involves a set of further conditions which must be satisfied (1985, 21).” Elsewhere, Vanderveken (1983, 378) is explicit that knowledge of the speaker’s intentions is necessary for knowing the force of declaratives like (140). Accordingly, I interpret them as maintaining that speaker intentions determine force in at least those situations where force is under-indicated and perhaps in more situations too. The Searlean answer therefore repeats the problems from §4.3.1 for intentional restrictions. The requisite intentions can be absent and knowledge representation is mistakenly predicted as absent.

Still, we have come the closest thus far to answering the interface questions. With the Searlean answer, the source of M-extendibility is the sincerity condition of a speech act. When that condition requires speaker knowledge or belief, the declarative used in a speech act can be extended into a Moorean absurdity. The reason why parentheticals stop M-extendibility is that they alter the sincerity condition to an epistemic position weaker than knowledge or belief. As a result, the approach has the resources for a

compelling answer to IEQ. What determines knowledge representation is the sincerity conditions that hold as a matter of linguistic convention. Where the answer falls short is answering ICQ. It underpredicts the presence of knowledge representation because it makes force and, with it, knowledge representation, depend on features of context like speaker intentions.

4.4.2 Beyond Searle

Maybe the Searlean answers can be fixed. Though few adopt the entire framework developed by Searle, many take his lead in analyzing expressions of natural language as force-indicators. It will be instructive to consider a few potential remedies to the discussed ailments that depart from Searle but still deploy the notion of a force-indicator in answering the interface questions.

The first fix concerns the declarative clause as a force-indicator. Searle and Vanderveken (1985) hold a confusing position. They maintain that the clause indicates assertion, but yet they also maintain that a declarative like (140) can be used to perform a promise. On their view, the clause must be either incomplete or defeasible as a force-indicator. But what if the clause was a complete and non-defeasible indicator of force? Call this proposal the INDEFEASIBLE FIX. Its immediate upshot is that it stops underpredicting knowledge representation. Sentences like (140) will have sincerity conditions associated with assertion even if they also have the conditions associated with promising. As a result, knowledge representation will be predicted because sincere assertion requires belief or knowledge.

Let's distinguish between ADDITIVE and NON-ADDITIVE force-indication. Additive force-indicators specify that the act being performed has additional conditions from what it would otherwise have without the force-indicator. *As a reminder* is a candidate.

(142) *As a reminder*, Whiz DJ'ed.

The *as*-adverbial can be understood as indicating that the act being performed is a

reminder. Since a reminder is a determinate of assertion with extra preparatory conditions, *as a reminder* indicates that these extra conditions apply to the speech act. In contrast, non-additive force indicators modify the force components of a speech act as opposed to merely add additional conditions. Parentheticals are non-additive force-indicators. They modify a declarative that would be usable for performing assertion into one that performs a different act.

The infeasible fix fails because it is not compatible with any non-additive force-indicators occurring with a declarative. If the declarative clause indicates that the associated speech act is an assertion, other force-indicators cannot change what has already been settled about the act. They can add to what has been settled, but they cannot unsettle. Parentheticals as non-additive indicators that influence knowledge representation rule-out the infeasible fix.

The failure of the infeasible fix shows that a subtler tack is needed. Sight should not be lost of the fact that parentheticals have an alternative form. The alternative to declaratives qualified with parentheticals are unqualified declaratives. The subtler proposal is that a lack of qualification is what is an infeasible force-indicator for assertion. Let's call this the SUBTLE FIX. Like the infeasible fix, the subtle fix avoids underpredicting knowledge representation in examples like (140). However, parentheticals are not the wrecking ball for the subtle fix like they are for the infeasible fix. To qualify the declarative with parentheticals is to replace the force-indicator for assertion with a different force-indicator.

With the subtle fix, we have what we need to answer both interface questions. The answer for IEQ is inherited from Searle's original proposal and the answer to ICQ is improved by eliminating the context-sensitivity of force and replacing it with the proposal that unqualified declaratives invariantly indicate assertoric force. However, the subtle fix still leaves a lot to be desired.

Remember that an expression can either contribute to the proposition expressed by an act or it can indicate the force of the act. There is no option for an expression to contribute to truth-conditions and indicate force. Such a limitation is a problem.

Parentheticals are complex expressions composed of a first-person subject, a verb denoting either an evidence source or attitude, and present tense morphology. Each of these components individually or in a complex expression like *I think* can contribute to truth-conditions.

(143) I think that Whiz DJ'ed.

(144) Whiz DJ'ed, I think.

(143) illustrates as much. But when the complex expression *I think* appears in a different syntactic position like (144), the expression does something different. On the proposal we have been considering, it behaves as an indefeasible, non-additive force-indicator. Accordingly, the proposal is required to posit widespread ambiguity to explain parenthetical verbs. For every complex expression that can appear in a parenthetical position, that expression has at least two meanings: a truth-conditional meaning and a meaning as a force-indicator. Verbs like *think*, *guess*, *believe*, *surmise*, *swear*, *suspect*, and *hypothesize* are all ambiguous.

Positing such ambiguity is not plausible. Our understanding of a complex expression like *I think* is based on our understanding of the meaning of its constituents and the syntactic rules governing their composition. It is not as if, for example, we rely on one understanding of present tense morphology in (143) and another understanding in (144). What is more, the difference between *I think* in each example also corresponds to an easily discerned syntactic difference. So an explanation for how *I think* contributes differently to a sentence should at least partially derive that semantic difference from the syntactic difference. But the Searlean answer derives the difference wholly from the complex expression's separate meaning as a force-indicator. If we can, we should do better.

4.4.3 Parentheticalism again

Parentheticalism is what enables us to do better. It traces knowledge representation back to a covert parenthetical in the logical form of a declarative. As a result, knowledge representation is not predicted to come and go with the speaker intentions or

effects of a declarative in a context. It is always present as long as the covert parenthetical is present in the logical form. Parentheticalism is not at risk of underpredicting like the act-based answers to ICQ were.

It is further not at risk of overpredicting knowledge representation like the infeasible fix to the Searlean answer. When it comes to overt parentheticals like *I think*, a simple explanation can be given for why they do not involve knowledge representation. They do not because they replace the otherwise covert *I know* parenthetical with a different attitude verb denoting a weaker epistemic position. As a result, the declarative ceases to be M-extendible. In the vernacular of §3 where I offered a multidimensional semantics for parentheticalism, overtly qualified declaratives are not M-extendible because they do not incite a contradiction between the *t*-meaning and *u*-meaning of sentences in a discourse.

A superior explanation is provided over the subtle fix to the Searlean answer because parentheticalism does not posit ambiguity. The hedging interpretation of attitude verbs is derived from their syntactic position wherein they make a contribution to use-conditional meaning as opposed to truth-conditional meaning (§3.10). Consequently, we do not need to posit a meaning that contributes to truth-conditional content and a force-indicator meaning to explain how an overtly qualified declarative stops knowledge representation. The multidimensional semantics of §3 allows us to get by with a single entry for attitude verbs.

Stated concisely, the answers to the interface questions are as follows. The interface condition question or ICQ concerned the conditions under which the use of a declarative represents the speaker as knowing. The answer parentheticalism offers is this: when the logical form of the declarative contains a covert or overt *I know* parenthetical. The interface explanation question or IEQ concerned why those were the conditions. The related answer is this: those are the conditions as a matter of linguistic convention in English.

4.5 Conclusion

Of the answers to the interface questions considered, parentheticalism comes out on top. As assessed by the Moorean diagnostic developed in §4.2, parentheticalism does not over or underpredict when the use of a declarative in a context represents the speaker as knowing the proposition expressed by that declarative like act-based answers do. Importantly, it also achieves predictive accuracy without having to posit ambiguity in the meaning of attitude verbs like answers to the interface questions that rely upon the notion of force-indication.

Sometimes just because you can do something, it does not mean you should. I argued in §3 that we can supplant assertion with parentheticalism. Now I have given a reason why we should. Parentheticalism offers a superior explanation of when and why the use of a declarative in a context represents the speaker as knowing the proposition expressed.

Chapter 5

Conclusion

This dissertation has argued for parentheticalism, the view that most unqualified declaratives in English contain a covert instance of *I know* in a parenthetical position. This hidden parenthetical is what causes the use of an unqualified declarative in a context to represent the speaker as knowing the at-issue proposition expressed by the declarative. Since the act-type of assertion is needed only to explain how an unqualified declarative represents as much, parentheticalism has the consequence that assertion is dispensable. So explaining what speakers do by using a declarative no longer requires a two-stage explanation that begins with semantics and ends with action. With parentheticalism, it's just semantics.

In this conclusion, I address two questions raised by my recommendation that assertion be supplanted with parentheticalism. In §5.1, I discuss whether the multidimensional semantics that I gave to parenthetical verbs in §3 is extendible to other epistemic expressions (*e.g.* modals, adverbs). Then §5.2 explores whether other speech acts can be superseded in the manner that I have argued that parentheticalism supplants assertion.

5.1 Beyond parentheticals

Throughout the dissertation, attitude verbs in parenthetical position were exclusively used to motivate the qualified/unqualified distinction. They provided a helpful illustration of the distinction because their parentheticality highlighted their non-standard use as qualifiers. However, parentheticals are not the only expressions in English that can be used to qualify a declarative by altering what epistemic position the speaker

is represented as occupying. The examples in (146) and (147) illustrate how other expressions can as well.

(145) Whiz DJ'ed.

(146) Whiz maybe / probably DJ'ed. ADVERBS

(147) Whiz might / must have DJ'ed. MODALS

Epistemic adverbs and modals differ from parenthetical verbs in that their use as qualifiers is less transparent. Instead of being prosodically and syntactically separated from the rest of the sentence like parenthetical verbs are, adverbs and modals do not appear any differently. As a result, the examples above are ambiguous between a qualifying use and a truth-conditional use.

Let's draw the usual distinction between the epistemic expression and its prejacent. Evidence for the ambiguity of the epistemic expression comes from the change in which content has at-issue status in a context. Sometimes it is just the content of the prejacent, sometimes it is the content determined by the prejacent with the epistemic expression. Relying again on the diagnostics from Tonhauser (2012), compare these replies.

(148) (A) Who probably DJ'ed?

(B) Whiz probably DJ'ed.

(149) (A) Who DJ'ed?

(B) Whiz probably did.

Assuming the semantics for interrogatives in the style of Hamblin (1973), interrogatives have sets of proposition for their truth-conditional meanings and replies are answers only when they entail the truth or falsity of one or more propositions in the set. We can notice that at-issue status differs between the discourses because what content counts as an answer differs. The question in (148) is about what is probable and has a denotation like this: $\{\{w: \text{Whiz probably DJ'ed in } w\}, \{w: \text{Riri probably DJ'ed in } w\}, \dots\}$. The reply in (148B) is an answer because it entails that Whiz DJ'ed. So the at-issue content of the first discourse consists of the prejacent with the epistemic

expression. However, the instance of *probably* in (149B) is different. The question is not about what is probable by having a denotation like this: $\{\{w: \text{Whiz DJ'ed in } w\}, \{w: \text{Riri DJ'ed in } w\}, \dots\}$. The reply that Whiz probably DJ'ed is then not an answer. Only the prejacent is an answer in the discourse.

Propositional anaphora evinces the same change in at-issue status between the two discourses. Consider *That's false!* said in response to the replies (148B) and (149B). In response to (148B), *that* is most naturally interpreted as denoting the proposition that Whiz probably DJ'ed. Not so for (149B). Then *that* is understood as targeting just the prejacent, the proposition that Whiz DJ'ed.

My analysis of the change in at-issue status observed is that it tracks whether the epistemic expression is being interpreted as a qualifier or not.¹ In (148B), *probably* contributes to truth-conditions as opposed to being a qualifier. That is why the prejacent plus the epistemic expression is an answer in the strict sense, that is why the same is available for propositional anaphora. However, *probably* is interpreted as a qualifier in (149B). Then the prejacent becomes at-issue.

Can the multidimensional semantics from §3 help explain this ambiguity? I think it can and will say a little bit about why. The ambiguity observed for *probably*, which generalizes to the other epistemic expressions mentioned, does not appear lexical. The meaning of the expression—in some sense—remains the same. I propose that what changes is the semantic dimension at which the expression makes its contribution. That is, the ambiguity is a DIMENSIONAL AMBIGUITY. Epistemic expressions can contribute to truth-conditions or use-conditions.

In the Appendix for §3, I introduced a dimension-shifter \otimes that converts unsaturated truth-conditional expressions into unsaturated use-conditional expressions. With

¹Early work on epistemic modals tended to regard them as force-modifiers. An example is Dummett (1973, 330) who writes, “Expressions of epistemic modality do not ordinarily occur within the scope of sentential operators, and are best understood, not as contributing to the sense of the sentences they govern, but as an expression of the force with which those sentences are uttered.” Likewise, Halliday (1970, 349) says “Modality... is external to the content, being a part of the attitude taken up by the speaker.” But such views were later abandoned because they were at odds with the scopal behavior of modals. See Papafragou (2006), von Stechow and Gillies (2007), and Swanson (2011). I speculate that the initial attraction of such views is due to the modals having a qualifying use. That raises the question of whether a force-modifying view can be partially restituted as an ambiguity view while avoiding the scopal problems.

a few assumptions, the dimension-shifter can account for dimensional ambiguity. Start with a non-committal semantics for *might* where it expresses a relation between a proposition and a conversational background \mathcal{B}_c . Our first assumption is that a modal is type $\langle\langle s, t \rangle, \langle s, t \rangle\rangle$.

$$(150) \llbracket \text{might} \rrbracket^c = \lambda p. \text{MIGHT}(\mathcal{B}_c)(p) : \langle\langle s, t \rangle, \langle s, t \rangle\rangle$$

Syntactically, epistemic modals appear above the tense phrase (Cinque, 1999). Our second assumption takes that a step further. Let's suppose that modals can sometimes occupy the same projection in the left periphery as a parenthetical verb. Then the entry in (150) can compose with the entry for \otimes found in (A13). Skipping to the end of the derivation we find (151).

$$(151) \llbracket \otimes \text{might} \rrbracket^c = T \blacklozenge \lambda p. \{c: \text{MIGHT}(\mathcal{B}_c)(p) \text{ in } c_w\} : \langle\langle s, t \rangle, u \rangle \bullet U$$

The shifted modal now has a multidimensional meaning with trivial truth-conditional content and almost saturated use-conditional content. Once it is composed with the meaning of an underlying tense phrase, we arrive at this interpretation of a qualified declarative.

$$(152) \llbracket \text{Whiz might have DJ'ed} \rrbracket^t = \{w: \text{Whiz DJ'ed in } w\}$$

$$(153) \llbracket \text{Whiz might have DJ'ed} \rrbracket^u = \{c: \text{MIGHT}(\mathcal{B}_c)(\{w: \text{Whiz DJ'ed in } w\}) \text{ in } c_w\}$$

Such an interpretation mirrors the one given to declaratives qualified with parentheticals in §3. It explains the change in at-issue status as a shift in dimension. Once the modal shifts, only the prejacent is at-issue.

I do not discuss further whether the two assumptions made are plausible or whether an interpretation like (152) and (153) is always desirable. But what has been shown is enough to illustrate that the multidimensional approach taken in §3 readily applies beyond parenthetical verbs. I leave it to future work to consider how promisingly it applies.

5.2 Beyond assertion

I close by considering whether other speech acts can be supplanted. It is straightforward that some cannot be set aside for semantic proposals. Consider promises. A promise is multiply tokened: a declarative used performatively can be a promise but so can a discourse like (155) consisting of a non-performative declarative and an imperative (Scanlon, 1998).

(154) I promise to DJ.

(155) I will DJ. Trust me.

By being multiply tokened, no linguistic expression exists that is the typical or exclusive means of tokening. No expression could then be given a semantics to explain what an act theory of promising explains.

The speech acts that are at most susceptible to being supplanted are those that are intimately related to a linguistic expression. Let's divide these speech acts into two categories: *CLAUSAL* and *NON-CLAUSAL ACTS*. Clausal acts are speech acts typically performed by using a sentence of a specific clause type. Besides assertions, commands (tokened by imperatives) and questions (tokened by interrogatives) are clausal acts. Non-clausal acts are still typically associated with a particular expression, but that expression is not syntactically a clause.

An initial way to try out a semantic explanation of clausal acts would be to let the meaning of a clause type—its mood—carry the load as opposed to an act-type. However, embedding presents the traditional problem with this approach. Parentheticalism avoided the embedding problem by appealing to a covert constituent of a declarative as opposed to the declarative's mood. But it is not clear how to offer a parallel proposal for the other clause types. Interrogatives and imperatives do not appear to have qualified/unqualified forms or forms sufficiently similar. Though an interrogative could be said to represent a speaker as wanting to know its answer and an imperative could be said to represent the speaker as desiring or preferring the realization of a future event (§3.7.2), what's represented is not easily modified. I know of

no parentheticals or adverbs, for example, that can appear in an interrogative to weaken or strengthen the speaker's inquisitiveness.

For this reason, I am skeptical that other clausal acts can be supplanted in the manner I have suggested that parentheticalism supersedes assertion. A different solution to the embedding problem would need to be found. But I am confident that some non-clausal acts tied to particular linguistic expressions can be. Many such acts are tied to unembeddable expressions. Circle back to greetings (§3.5.1). Expressions like *hello*, *hey*, and *hi* do not embed unquoted.² As a result, there is no embedding problem to confront. With a multidimensional semantics—in particular, a multidimensional semantics where one of the dimensions is use-conditional content—we can ditch an act-based theory of greeting such as the one found in Searle (1969) for a semantic explanation of the relevant linguistic expressions.

A general lesson emerges. The turn to supplementing theories of meaning with theories of action was, in part, motivated by the explanatory limitations of truth-conditional semantics. Vanderveken (1989, 196), for example, is explicit about this motivation.

[L]ogicians like Montague (1974) and Kaplan (1979)... have been confined to the truth-conditional aspects of sentence meaning and have tended to reduce linguistic competence to the speaker's ability to understand the truth-conditions of the sentences of his language. Because they have ignored other illocutionary aspects of meaning, they have been unable to give a satisfactory account of non-declarative sentence types. They have failed to analyze adequately the meaning differences existing between sentences like "John will be nice," "Please, John, be nice!" and "If only John would be nice!," which express the same propositions in the same possible contexts of utterance but are used to perform illocutionary acts with different forces. [...] Thus... formal semantics has only been able to construct adequate interpretations of very restricted fragments of declarative sentences of natural languages.

But formal semantics has outgrown its truth-conditional limitations. So previous divisions of explanatory labor between semantics and pragmatics *qua* theory of action need to be rethought with the new formal tools. Multidimensional semantics is one

²I regard embeddings under verbs of saying like *Say hello to Whiz* as using *hello* quotatively. Evidence for this interpretation is that *hello* often occurs with a distinct prosodic break before and/or after its use if it appears under *say*.

such development (Potts, 2004; McCready, 2010; Gutzmann, 2015). This dissertation has showcased how it is a useful one for semantically explaining what speakers typically do with declaratives.

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